Tampere University

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Evaluated in connection to power issues and Organizational Social Context

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ACADEMIC DISSERTATION
To be presented, with the permission of
the Faculty Council of the Faculty of Social Sciences
of Tampere University,
for public discussion in the auditorium F025
of the Arvo Building, Arvo Ylpön katu 34, Tampere,
on 3 May 2019, at 12 o'clock.

ACADEMIC DISSERTATION
Tampere University, Faculty of Social Sciences
Finland

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The originality of this thesis has been checked using the Turnitin OriginalityCheck service.

Cover design: Roihu Inc.

ISBN 978-952-03-1040-0 (print)
ISBN 978-952-03-1041-7 (pdf)
ISSN 2489-9860 (print)
ISSN 2490-0028 (pdf)
http://urn.fi/URN:ISBN:978-952-03-1041-7

PunaMusta Oy – Yliopistopaino
Tampere 2019

To my beloved husband Artur and our sons Mark and Martin, and to my parents Vera and Andrej

ACKNOWLEDGEMENTS

This study was carried out at Tampere University (Faculty of Social Sciences). I am grateful to Tampere University for creating a high quality learning environment and granting access to the services it provides.

There are many persons whom I would like to thank who were all involved during the process of my studies. I express my gratitude to the nurse managers who participated in this research. Thank you for your time and giving me the possibility to uncover new knowledge concerning this area of nursing.

I would like to thank my main supervisor Professor Tarja Suominen from Tampere University (Finland). I am grateful for your support, help, patience and encouragement. I appreciate your efforts to motivate me to continue the long and challenging process of carrying out my studies. I have learned what it is to be a researcher and also a lecturer during the meetings and visits to Tampere. This experience has proved invaluable and it was an honor to be your student.

Also I would like to express my gratitude to my other supervisor Professor Arturas Razbadauskas from Klaipeda University (Lithuania). You were the one who encouraged me to start my PhD studies and supported me during this period.

Furthermore, I am grateful to my follow-up group members, Professor Diane Doran from the University of Toronto (Canada) and Adjunct Professor Paula Asikainen from Tampere University (Finland) for their helpful suggestions and useful improvements concerning the publications of this dissertation.

Additionally, I would like to thank my other co-authors Professor Philip Green (University of Tennessee, USA), Adjunct Professor Nijole Galdikiene (Klaipeda State University of Applied Sciences, Lithuania) and Mika Helminen (Tampere University, Finland) for their intellectual support in writing the respective publications.

I would like to thank my pre-reviewers Professor Walter Sermeus from the Katholieke Universiteit Leuven (Belgium) and Professor Lisbeth Fagerström from Åbo Akademi University in Vaasa (Finland) for their review of this summary and their valuable recommendations that gave me the opportunity to improve my dissertation.

I would like to express my gratitude to my colleagues from the Department of Nursing in Klaipeda University, and especially Professor Vida Mockiene (in memoriam) for her support, encouragement and worthy discussions. I am also grateful to the interim head of the department Adjunct Professor Indre Brasaite for her help and assistance during the study process.

Sincere thanks go to Professor Arvydas Martinkenas from Klaipeda University and Lecturer Sigitas Balciunas from Siauliai University for their professional advice on statistical issues and their valuable comments related to publications. Also I express my gratitude to Nicholas Rowe from The Written Word for conducting the English language check of this summary and original publications.

My warmest thanks go to my parents, Vera Mitiusina and Andrej Mitiusin. I am grateful for their love, understanding, support, encouragement and belief in me. I would like to express my gratitude to my sister Anastasija who was always supportive during the research period, and I am thankful to all of my friends who have supported me throughout the long study period.

Finally, I want to thank my husband Artur for his love, support, encouragement, patience, and always being by my side. I am also grateful for our children, Mark and Martin, who were born during the study process. Thank you for letting me know that I am not only a researcher and a teacher, but also a wife and a mother. I am grateful to my family for keeping my feet on the ground, so thank you with all my heart.

I express my acknowledgements to Tampere University, the Finnish Nurses' Education Foundation, the Finnish Cultural Foundation, the Pirkanmaa Hospital District, the Competitive State Research Financing of the Expert Responsibility Area of Tampere University Hospital (Grant 9S065), and to Klaipeda University for their financial support of this study.

The long journey that seemed to be endless has now finished, but it's not the end, only a new beginning.

Klaipeda, 2019

Sincerely,

Marija Trus

ABSTRACT

Nowadays, health care organizations are affected by changes and reforms, thus, new challenges arise for nurse managers, whose role entails a large number of administrative responsibilities. Nurse managers need to have power in order to achieve their personal and organizational goals. Power and its exercise is incorporated into the concept of empowerment. Thus, being empowered plays an important role in providing nursing leadership, as it enables nurse managers to perform their everyday tasks more effectively and in a meaningful way. Furthermore, there has been an interest in research on organizational issues, e.g. organizational culture and climate, that shape the organization and provide a complex understanding of organizational factors such as empowerment.

The overall purpose of this study was to explore how empowered nurse managers were, and the connection of empowerment to power issues and the Organizational Social Context (organizational culture, organizational climate, and morale). The study was divided into two main phases (systematic literature review and empirical research). In Phase 1, previous empirical studies revealed that empowerment of nurse managers was mostly evaluated by way of self-administered questionnaires, and mainly two approaches to describe it were used, in particular structural and psychological. It was revealed that nurse managers were moderately or highly structurally and psychologically empowered.

In Phase 2, a quantitative descriptive cross-sectional design study was carried out. The research process followed the main ethical principles and standards declared in the World Medical Association Declaration of Helsinki. The study data was collected in seven state-funded university and general level hospitals among nurse managers (n=193). They were divided/grouped into teams (n=22) based on their clinical nursing area, and also in regard to their common daily tasks undertaken in the organization in collaboration with chief nurses/directors of nursing.

The data was collected by way of a self-administered questionnaire that consisted of four parts: demographic and work-related questions, the Conditions of Work Effectiveness Questionnaire-II for structural empowerment, the Work

Empowerment Questionnaire for psychological empowerment, with power related items at unit level and the Manager's Activity Scale at organizational level, and the Organizational Social Context measurement system. Permissions to use the respective instruments were granted from the copyright holders. The data was analyzed statistically.

The results of the study showed that nurse managers were moderately structurally empowered, but perceived a high level of psychological empowerment. A few background factors correlated with both structural and psychological empowerment. Additionally, several significant relations were found between structural empowerment subscales and psychological empowerment dimensions. Nurse managers experienced unit level power and organizational level power at a moderate level. In addition, structural and psychological empowerment correlated with both unit and organizational level power.

The differences in Organizational Social Context between teams and organizations were calculated. The results showed that differences in culture dimensions were significant at team level in resistance, and at organization level in resistance and proficiency. The differences in climate dimensions between teams were significant in functionality, and between organizations in engagement and functionality. The differences in morale were significant at both team and organization level. Several correlations were found between organizational culture and climate, and empowerment. These correlations were statistically significant, however, most of them were weak. Several significant relationships were also found between morale, structural and psychological empowerment, and organizational culture and climate dimensions.

This study offers implications for practice, management, education and future research. The role of chief nurses/directors of nursing is vital for nurse managers, as they should create and empowering working environment. Power-seeking strategies should be adopted in order to increase self-confidence in nurse managers. In addition, it is important to provide nurse managers with opportunities to grow professionally and to apply new knowledge and skills in order to work effectively and experience professional power. This study offers a general and valuable view of the topic, however, other research alternatives would be beneficial to further explore the experiences and perceptions of nurse managers regarding the phenomena of empowerment and Organizational Social Context.

Keywords: nurse manager, head nurse, nurse administrator, nurse leader, chief nurse, nursing, empowerment, structural empowerment, psychological empowerment, power, organizational culture, organizational climate, morale, Organizational Social Context, nursing management, nursing leadership, Lithuania.

TIIVISTELMÄ

Osastonhoitajien työssä voimaantuminen, vaikutusvalta ja organisaation toimintaympäristö.

Nykypäivän terveydenhuolto-organisaatiot kokevat muutoksia ja uudistuksia. Tämä nostaa esiin uusia haasteita osastonhoitajille, joiden tehtäviin sisältyy paljon hallinnollista vastuuta. Osastonhoitajilla on oltava vaikutusvaltaa, jotta he voivat saavuttaa sekä henkilökohtaisia tavoitteitaan että organisaation tavoitteita. Valta ja vaikuttaminen liittyvät voimaantumisen käsitteeseen. Voimaantuminen on tärkeässä roolissa hoitotyön johtamisessa, sillä se mahdollistaa osastonhoitajille tehokkaan ja merkityksellisen työskentelyn. Tutkijat ovat kiinnittäneet huomiota myös organisaation rooliin, kuten siinä vallitsevaan kulttuuriin ja ilmapiiriin, sillä ne vaikuttavat organisaation toimintaan ja auttavat ymmärtämään monipuolisemmin organisatorisia tekijöitä kuten voimaantumista.

Tämän tutkimuksen päätavoite oli tutkia osastonhoitajien voimaantumisen määrää ja suhdetta vaikutusvaltaan ja organisaation sosiaaliseen kontekstiin (kulttuuri, ilmapiiri ja moraali). Tutkimus jakautuu kahteen päävaiheeseen (systemaattinen kirjallisuuskatsaus ja empiirinen tutkimus). Ensimmäisessä vaiheessa tarkastelluista empiirisistä tutkimuksista selvisi, että osastonhoitajien voimaantumista arvioitiin useimmiten itsenäisesti täytettävillä kyselyillä. Sitä kuvattiin pääasiassa kahdesta näkökulmasta; rakenteellisesta ja psykologisesta. Tutkimusten mukaan osastonhoitajat kokivat olevansa joko kohtalaisen tai erittäin rakenteellisesti ja psykologisesti voimaantuneita.

Toisessa vaiheessa toteutettiin kvantitatiivinen kuvaileva poikittaistutkimus. Tutkimusprosessi seurasi Maailman lääkäriliiton Helsingin julistuksessa linjattuja eettisiä periaatteita. Aineisto kerättiin osastonhoitajilta seitsemässä julkisrahoitteisessa yliopistollisessa sairaalassa tai yleissairaalassa (n=193). Osastonhoitajat jaettiin ryhmiin erikoisaloittain (n=22) sekä sen mukaan, toimivatko he päivittäisessä työssään organisaatiossa yhteistyössä tietyn johtavan ylihoitajan alaisuudessa.

Aineisto kerättiin itsenäisesti täytettävän kyselyn avulla. Kyselyssä oli neljä osaa: demografiset ja työhön liittyvät kysymykset, rakenteellista voimaantumista mittaava The Conditions of Work Effectiveness Questionnaire-II -kysely sekä psykologista voimaantumista mittaava Work Empowerment Questionnaire -kysely, vaikutusvaltaa kuvaavat kysymykset yksilötasolla sekä organisaation tasolla (Manager Activity Scale), sekä Organizational Social Context -mittari. Mittareiden käyttöön kysyttiin lupa niiden tekijänoikeuksien haltijoilta. Aineisto analysoitiin tilastollisesti.

Tutkimustulokset osoittivat, että osastonhoitajat kokivat olevansa kohtalaisen voimaantuneita rakenteellisesta näkökulmasta. Psykologisen voimaantumisensa he kokivat olevan korkealla tasolla. Muutamat taustatekijät korreloivat sekä rakenteellisen voimaantumisen että psykologisen voimaantumisen kanssa. Rakenteellisen ja psykologisen voimaantumisen sekä taustatekijöiden välillä havaittiin lisäksi useita merkittäviä yhteyksiä. Osastonhoitajat kokivat kykenevänsä vaikuttamaan asioihin kohtalaisesti sekä yksikön että organisaation tasolla. Rakenteellinen että psykologinen voimaantuminen olivat lisäksi yhteydessä vaikutusvaltaan sekä yksikön että organisaation tasolla.

Tutkimuksessa arvioitiin myös eroja tiimien ja organisaatioiden toimintaympäristöjen (organisaatiokulttuuri, ilmapiiri ja moraali) välillä. Tulokset osoittivat, että tiimien toimintakulttuureissa oli merkittäviä eroja vastarintaa tarkasteltaessa. Organisaatioiden toimintakulttuurit taas erosivat toisistaan merkittävästi sekä vastarinnan että pätevyyden suhteen. Tiimien ilmapiirit poikkesivat toisistaan merkittävästi toimivuudessa, kun taas organisaatioiden ilmapiirit vaihtelivat sekä toimivuuden että osallistumisen suhteen. Moraalissa oli merkittäviä eroja sekä tiimien että organisaatioiden tasolla.

Organisaatiokulttuurin ja -ilmapiirin ja toisaalta voimaantumisen välillä havaittiin useita merkittäviä yhteyksiä. Yhteydet olivat tilastollisesti merkittäviä mutta heikkoja. Moraali oli yhteydessä rakenteelliseen ja psykologiseen voimaantumiseen kuten myös organisaatiokulttuuriin ja ilmapiiriin.

Tutkimustulokset ovat merkittäviä käytännön työn, johtamisen, koulutuksen ja lisätutkimuksen näkökulmista. Johtavien ylihoitajien/ylihoitajien rooli on ratkaiseva osastonhoitajien työssä, sillä heidän tehtävänään on luoda voimauttava työympäristö. Organisaatiot tarvitsevat voimaantumisstrategioita lisäämään osastonhoitajien itseluottamusta. Osastonhoitajille tulisi lisäksi tarjota mahdollisuuksia ammatilliseen kasvuun ja uuden tiedon ja taitojen soveltamiseen,

jotta he voivat työskennellä tehokkaasti ja kokea ammatillista voimaantumista. Tämä tutkimus tarjoaa arvokkaan näkökulman aiheeseen yleisellä tasolla, mutta uusia tutkimuksellisia lähestymistapoja tarvitaan, jotta osastonhoitajien kokemuksia ja käsityksiä voimaantumisesta organisaation toimintaympäristössä voidaan ymmärtää paremmin.

Avainsanat: osastonhoitaja, ylihoitaja, hallinnollinen osastonhoitaja, johtava hoitaja, johtava ylihoitaja, hoitotyö, voimaantuminen, rakenteellinen voimaantuminen, psykologinen voimaantuminen, vaikutusvalta, organisaatiokulttuuri, organisaatioilmapiiri, moraali, organisaation toimintaympäristö, hoitotyön johtaminen, Liettua.

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LIST OF ABBREVIATIONS

CINAHL	Cumulative Index to Nursing and Allied Health Literature
CWEQ-II	Conditions of Work Effectiveness Questionnaire-II
MAS	Manager's Activity Scale
n	Number of cases, sample size
NS	not significant
OSC	Organizational Social Context measurement system
SD	Standard Deviation
SPSS	Statistical Package for the Social Sciences
p	p-value
r	Spearman's Correlation
WHO	World Health Organization
WMA	World Medical Association

LIST OF ORIGINAL PUBLICATIONS

This dissertation is based on the following original articles that are specified in the text by their Roman numerals from I to IV.

I Trus M., Razbadauskas A., Doran D., Suominen T. 2012. Work-related empowerment of nurse managers: a systematic review. *Nursing and Health Sciences* 4(3), 412-20. Doi: 10.1111/j.1442-2018.2012.00694.x.

II Trus M., Doran D., Martinkenas A., Asikainen P., Suominen T. 2018. Perception of work-related empowerment of nurse managers. *Journal of Research in Nursing* 23(4), 317-30. Doi: 10.1177/1744987117748347.

III Trus M., Martinkenas A., Suominen T. 2017. How much power do nurse managers have? *Nursing Administration Quarterly* 41(4), 337-45. Doi: 10.1097/NAQ.0000000000000247.

IV Trus M., Galdikiene N., Balciunas S., Green P., Helminen M., Suominen T. 2019. Connection between organizational culture and climate and empowerment: a perspective of nurse managers. *Nursing and Health Sciences* 21(1), 51-62. Doi: 10.1111/nhs.12549.

 The summary contains some unpublished results.

1 INTRODUCTION

Nowadays, health care organizations are affected by on-going changes that raise challenges for all health care professionals, including nurse managers (Salmela et al., 2013). When performing their role, nurse managers respond to the demands established by governmental institutions (Warshawsky et al., 2013). Thus, the role of the nurse manager has changed from being clinical to one that is more managerial in nature (Chase, 2010; Gunawan & Aungsuroch, 2017).

The complexity of the nurse manager's role entails a large number of responsibilities that are visible in the job description (Chase, 2010; Moore et al., 2016). The nurse manager is responsible for implementing organizational goals from operational level to practice, integrating them in a particular clinical and managerial area, and foreseeing their outcomes (Chase, 2010). However, despite each country having its own nurse manager work requirements, without doubt the main responsibility lies in the organization of unit care through exercising an administrative mission and enabling clinical care provision.

Representatives of nursing are involved in politics, legislation and professional organizations in order to make changes to the health care system. Thus, they are a part of the challenging processes that have an impact on both their professional practice and the quality of provided care (Basaran & Duygulu, 2015).

Nurse managers make efforts to create a working environment that supports and enables their staff nurses to provide quality nursing (Farag et al., 2009). They play a vital role in acting as connecting link between the care provided by their staff and everyday practices in the implementation of organizational strategies, and also in the promotion of organizational culture for achieving organizational goals (Bassett & Westmore, 2012).

As licensed nurses, nurse managers represent a large professional group of health care professionals. In 2016, there were 8.4 practising nurses per 1000 population in the European Union (EU-28) and 7.7 practising nurses per 1000 population in Lithuania (Health at a Glance: Europe, 2018). According to the Institute of Hygiene (2018), there were 21,903 nurses working in health care,

health science, education and management areas in Lithuania in 2017. However, there is no statistical data on how many of these work as nurse managers in health care organizations. Despite this, the nurse managers' role is challenging and demanding, and the expansion of the role requires both new knowledge and skills.

Nurses, including nurse managers, provide care that is based on a holistic view of the patient, taking into account not only physical, but also psychological and social dimensions of the patient in the health care environment (Garcia-Sierra & Fernandez-Castro, 2018). However, the health care environment has become complex and specialized, requiring broader administrative responsibilities (Oliver et al., 2014). Thus, being empowered is a vital factor for nursing leadership that enables nurse managers to provide effective care under their management role (Hughes et al., 2015).

In order to achieve personal and professional goals, nurse managers need to have power (Kelly, 2012). Power and its exercise are combined in the concept of empowerment (Kuokkanen & Leino-Kilpi, 2000). Thus, empowerment is critical when enhancing the working environment (Li et al., 2018) and is suggested to be an effective means for improvement (Poniatowski et al., 2005).

Empowerment in nursing has become noticeable and important (Spencer & McLaren, 2016). Thus, a need to investigate the phenomenon of nursing empowerment has arisen (Koo, 2015; Teixeira & Barbieri-Figueiredo, 2015). Moreover, an interest has emerged in the study of organizational aspects such as culture and climate, that are critical for the success and performance of the organization (Aarons et al., 2012; Glisson, 2015). Organizational culture shapes the organization and provides complex perceptions of organizational factors like empowerment (Sinha et al., 2016; Pradhan et al., 2017).

There are a number of studies that describe nurse managers' empowerment (e.g. Laschinger & Shamian, 1994; Suominen et al., 2005; Bish et al., 2014; Oliver et al., 2014; Van Bogaert et al., 2015; Spencer & McLaren, 2016) and organizational social context constructs (e.g. Hahtela et al., 2015; Beidas et al., 2016). However, studies that analyze nurse managers' empowerment in connection to organizational social context are lacking. Thus, the purpose of this study is to address this gap by describing the current situation in a Lithuanian context from the perspective of nurse managers and to search for connections between the aspects involved.

Resultingly, this study provides relevant and comprehensive information on the topic and posits several implications for nursing practice, nursing management, nursing education, and suggestions for future research in this field.

2 OVERVIEW OF THE LITERATURE

The literature review of this summary text was conducted in accordance with the main concepts of the study, in particular concerning foci of the 'nurse manager', 'empowerment', 'nursing power', 'organizational culture', 'organizational climate', and 'morale'. The search for this review was conducted in the following databases provided by the Library of the University of Tampere: CINAHL, Medline (Ovid), PubMed Central, ScienceDirect, ProQuest. The search was limited to abstracts and full-texts in English during the years 1990–2018.

The following keywords were used both individually and in different combinations using the Boolean operators 'AND' and 'OR': nurse manager, head nurse, nurse administrator, nurse leader, chief nurse, nursing, empowerment, structural empowerment, psychological empowerment, power, organizational culture, organizational climate, morale, Organizational Social Context, nursing management, nursing leadership, Lithuania.

In addition, a manual search for relevant public documents was carried out in the webpages of the noted worldwide organizations such as the World Health Organization (WHO) and the World Medical Association (WMA), and also in local (Lithuanian) webpages such as the Ministry of Health Care of the Republic of Lithuania, in order to gain a picture of the current situation.

The literature concerning empowerment and power issues was investigated from the perspective of health sciences, in particular nursing. The literature regarding organizational culture and climate, and morale was explored from the perspective of social (sociology) and health (nursing) sciences to gain a comprehensive view of the topic.

This literature review focuses on the main concepts that were analyzed in this study. The most relevant literature has been used to support this dissertation and is listed in section 'References' of the work.

2.1 Nurse manager's position and work content

The work of nurse managers is without doubt important and valuable, yet it is also challenging and demanding to carry out. Working on different levels of health care organizations, nurse managers play an important role in the development of an organization's mission, vision and success (Narinen & Kekki, 2003; Aitamaa et al., 2016; Moore et al., 2016).

Nurse managers as registered nurses are part of the greatest group of health care specialists. However, they struggle in a transitional role, linking care delivery and unit leadership (Baxter & Warshawsky, 2014; Gunawan et al., 2018; Shuman et al., 2018). Leadership plays a critical role guiding problem-solving and decision-making related to the delivery of nursing care (Lee & Cummings, 2008; Zydziunaite & Suominen, 2014).

The role of the nurse manager has become into more complex during recent decades. Their model of work has become patient-centred, even though their work activities tend to involve minimal patient care (Narinen & Kekki, 2003; Cadmus & Wisniewska, 2013; Sveinsdottir et al., 2018). However, nurse managers oversee the unit-level nursing services and remain responsible for the nursing care delivered by their staff (Moore et al., 2016; Gunawan & Aungsuroch, 2017; Gunawan et al., 2018; Shuman et al., 2018). Also, they are responsible for transferring organizational goals into practice and managing human and material resources (Gunawan & Aungsuroch, 2017; Gunawan et al., 2018). So, although their responsibilities divide their working role into clinical and managerial domains (Sveinsdottir et al., 2018), nurse managers need to be responsible for patient care and staff of the unit on a 24-hour basis (Narinen & Kekki, 2003; Skytt et al., 2008; Miltner et al., 2015; Gunawan & Aungsuroch, 2017).

Today the complexity of the nurse manager's role requires taking on broader responsibilities. The main responsibilities of working in the nurse manager's position are related to: unit, staff (Skytt et al., 2008; Cadmus & Wisniewska, 2013; Miltner et al., 2015; Moore et al., 2016; Gunawan & Aungsuroch, 2017; Shuman et al., 2018; Sveinsdottir et al., 2018), the patient (Miltner et al., 2015; Gunawan & Aungsuroch, 2017; Gunawan et al., 2018; Shuman et al., 2018), practice (Aitamaa et al., 2016; Laukkanen et al., 2016; Moore et al., 2016; Shuman et al., 2018), and organization (Shirey et al., 2010; Aitamaa et al., 2016; Kodama & Fukahori, 2017; Gunawan et al., 2018).

In ever-evolving health care systems, nurse managers will have to possess suitably appropriate skills (Moore et al., 2016). The nurse managers' skills should focus on the implementation of nursing care processes, and also team and relationship building (Lee & Cummings, 2008; Miltner et al., 2015). Additionally, they should be able to evaluate human and material resources, create conditions for achieving organizational goals, and be ready to observe their own behavior and monitor its impact on the work unit (Vesterinen et al., 2012; Baxter & Warshawsky, 2014; Gunawan & Aungsuroch, 2017). In developing skills that lead the unit and overall organization to success, nurse managers should use their critical thinking and clinical knowledge, and also apply up-to-date technology and methods of performance improvement (Baxter & Warshawsky, 2014).

Despite the existing skills and abilities nurse managers have, there is evidence that they still are ill-prepared for their role and are selected for the position based on clinical experience rather more than on formal preparation (Miltner et al., 2015).

In Lithuania, the Ministry of Health Care confirmed the legislative Order on the Exemplary of Qualification Requirements of Nursing Administrators (21.07.2016, No. V-967), implementing the Guidelines of National Nursing Policy for 2016–2025 (10.02.2016, No. V-222). With reference to the Order (21.07.2016, No. V-967), a nursing administrator is a person who has acquired a professional qualification of general practice nurse and holds an issued licence of a general practice nurse in accordance with the laws of the Republic of Lithuania, and also coordinates nursing activities of state and municipal budget and public institutions, subdivisions, and departments within the Lithuanian national health system.

In addition, the Order (21.07.2016, No. V-967) determines the general and special qualification requirements of nursing administrator. The general requirements describe the education (e.g. Bachelor's degree in nursing) and experience (e.g. not less than 3 years in nursing area) needed, depending on the management level of the position. Special requirements include skills, abilities and knowledge required for the position. Nursing administrators should be conversant with nursing policy; ensure the rational use and control of human and material resources in order to ensure high-quality and efficient patient-oriented care; coordinate nursing work; be able to make decisions, communicate, cooperate and work in a team, negotiate, solve conflicts, delegate responsibility; know the requirements of professional ethics; be able to use modern technologies; have an

excellent reputation (demonstrated by behavior or activity not violating the standards of professional ethics and deontology).

The term ‘nurse manager’ can be used synonymously/interchangeably with ‘head nurse’, ‘charge nurse’, ‘ward manager’, ‘ward leader’, ‘nursing unit manager’ (Gunawan et al., 2018), and ‘director of nursing’, ‘matron’, ‘service director’ (Zydziunaite, 2015). In the Lithuanian health care system, a nurse manager works as a formal leader of nursing in the unit and is subordinate to both the head physician of the unit and the chief nurse of the hospital/director of nursing. In practice, nurse managers supervise and manage the administrative and clinical issues of the unit (Zydziunaite et al., 2013; Zydziunaite, 2015).

In this study, a nurse manager is understood as a person who is in charge of the unit and responsible for nursing services, carries out management, supervision, administration functions of the unit, and has responsibility for staffing, budgeting, quality care, patient safety and other day-to-day operations of the unit.

2.2 Work-related empowerment of nurse managers

Empowerment is a complex and dynamic concept, and can be analyzed in different contexts and levels, and take different forms (Udod, 2012; Udod & Racine, 2017). It can summarily be described as a capacity of power that enables employees to achieve their goals (Zhang et al., 2018).

Empowerment can be defined as a process that enables individuals to control their environment and reach self-determination (Hermansson & Martensson, 2011). Implementing empowerment in practice is considered to give some degree of authority and autonomy to employees. Empowerment can be understood as a managerial strategy that supports employees to work in accordance with accepted norms and perform their work-related tasks in a flexible way. Empowerment is also considered as a factor that promotes critical thinking, and which directs to work at a higher level (Choi et al., 2016).

Empowerment is an ‘organizational tool’ used for gaining organizational benefit. The management of an organization can promote empowerment to achieve benefits for empowered staff. However, it is also an individual feature that is constructed by individual experience (Kennedy et al., 2015). From an organizational perspective, empowerment proposes that the working environment defines the employee’s capacity to be empowered. Accordingly, empowerment

can also be understood as control over working conditions that make actions possible (Corbally et al., 2007).

As an ongoing process, empowerment consists of several levels through which individuals develop, in particular participating, choosing, supporting, and negotiating (Hermansson & Martensson, 2011). There are three theoretical approaches towards empowerment (Kuokkanen & Leino-Kilpi, 2000; Knol & Linge, 2009; Casey et al., 2010; Kennedy et al., 2015): structural, psychological, and critical social. The structural empowerment perspective is based on the work of Kanter (1977) and presents a theory of power and its structure in an organization, describing empowerment in an organizational environment context. The psychological empowerment approach was developed by Conger & Kanungo (1988), and developed further by Thomas & Velthouse (1990) and Spreitzer (1995), using motivational theory and describing empowerment from the individual perspective. The critical social theory approach to empowerment represents empowerment in different social situations and describes it from a perspective of self-development and education among nurses (Kuokkanen & Leino-Kilpi, 2000; Knol & Linge, 2009; Casey et al., 2010; Kennedy et al., 2015). The variety of approaches and definitions of empowerment poses a difficulty in defining the concept, and it been suggested that it is easier to identify empowerment more by its absence, e.g. through powerlessness (Corbally et al., 2007).

The role of the nurse manager is highlighted in the creation of an empowering work environment, and having an impact on nurses' perceptions of their own empowerment (Armstrong & Laschinger, 2006; Hagerman et al., 2017; Udod & Racine, 2017). Thus, building an empowering work environment can lead to job satisfaction and have positive organizational outcomes (Bawafaa et al., 2015).

Empowerment is essential in nursing because it suggests that individuals should possess the power to perform their daily work in an environment that enables them to achieve both personal and organizational goals. Therefore nurse managers should support a working environment that provides staff nurses with sufficient resources, in order to promote patient health by ensuring patient access to empowering conditions (Connoly et al., 2018).

According to Kuokkanen et al. (2003), there are five categories that can be used to describe an empowered nurse: moral principles, personal integrity, expertise, future-orientedness, and sociability. Empowered employees tend to think critically, take on responsibility and risk, and evaluate their behavior and values.

So, it has been said that the meaning of work cannot be truly assessed without consideration of empowerment (Casey et al., 2010). However, empowerment can have an impact on the health care work environment (Friend & Sieloff, 2018), and has been seen to play an essential role in the professional growth of nursing specialists (Garcia-Sierra & Fernandez-Castro, 2018) and the creation of a professional practice environment (Goedhart et al., 2017).

Empowerment can be seen from two common concepts, namely structural and psychological empowerment (Zhang et al., 2018). In recent years both structural and psychological empowerment have been used to offer an understanding of empowerment at work (Cicolini et al., 2014). In this study, the structural empowerment of nurse managers is described as the empowering structures of their work environment that enable employees to perform their tasks and duties, which are supported by providing access to information, support, resources and opportunity, also the provision of formal and informal power (Kanter, 1993; Laschinger et al., 2001). Furthermore, in this study, the psychological empowerment of nurse managers is represented as a process where employees feel confident in their ability to perform certain actions (Irvine et al., 1999; Suominen et al., 2005).

2.2.1 Structural empowerment

Structural empowerment can be described as the ability of an employee (e.g. nurse) to mobilize resources in order to achieve the best practice and care for patients (Van Bogaert et al., 2015). Kanter's (1993) theory on structural empowerment provides the ground for the suggestion that work environment characteristics influence employees' behaviors and attitudes rather more than their personal characteristics (Bawafaa et al., 2015).

Structural empowerment concerns the organizational environment (e.g. practices, structures) that provides managers with a better potential for decision-making and exerting influence. It is connected to the concept of power that is shared between employers and employees (Bish et al., 2014). Structural empowerment refers to managerial work and is experienced when workers have access to the empowering structures (Cicolini et al., 2014). The empowering structures described by Kanter (1993) representing structural empowerment include access to information, support, resources that are required to do the work, opportunities to learn and grow, and also sources of power which may be formal

and informal (Patrick & Laschinger, 2006; Laschinger et al., 2007; Laschinger et al., 2011; Wong & Laschinger, 2013; Laschinger et al., 2014a; Laschinger et al., 2014b; Meng et al., 2015; Read & Laschinger, 2015; Skytt et al., 2015; Meng et al., 2016).

Access to information refers to the employee's knowledge of organizational change and policy, and also technical knowledge and expertise to fulfill their work-related activities and requirements. Access to support involves feedback, leadership and guidance from leaders, peers and colleagues consisting of emotional support, assistance and advice. Access to resources consists of the employee's ability to access resources, materials and time for reaching organizational goals and performing their job. Access to opportunities refers to mobility, learning and growth, and also possibilities to develop new knowledge and skills. The sources of power facilitate access to these structures. Formal power is seen to increase when work is visible, flexible and aligned with organizational goals, and is also defined by creativity and discretion. Informal power is a result of the relationships and communication between leaders, peers and colleagues within and outside organization (Patrick & Laschinger, 2006; Laschinger et al., 2007; Davies et al., 2011; Laschinger et al., 2011; Wong & Laschinger, 2013; Bish et al., 2014; Cicolini et al., 2014; Laschinger et al., 2014a; Laschinger et al., 2014b; Meng et al., 2015; Read & Laschinger, 2015; Skytt et al., 2015; Meng et al., 2016; Eriksson & Engstrom, 2018; Garcia-Sierra & Fernandez-Castro, 2018).

When employees have access to empowering conditions, they are empowered to perform their work (Garcia-Sierra & Fernandez-Castro, 2018). But when these conditions are lacking, employees feel powerless and tend to work in the organization ineffectively and without enthusiasm (Dan et al., 2018). Previous research on structural empowerment with nurse managers has shown that they were only moderately structurally empowered (Patrick & Laschinger, 2006; Casey et al., 2010; Laschinger et al., 2011; Regan & Rodriguez, 2011; Bish et al., 2014; Oliver et al., 2014; Hagerman et al., 2016; Spencer & McLaren, 2016), and according to previous research, nurse managers' structural empowerment was related to several demographic variables (Casey et al., 2010; Patrick & Laschinger, 2006), organizational support and role satisfaction (Patrick & Laschinger, 2006), job satisfaction (Casey et al., 2010), psychological empowerment and stress (Hagerman et al., 2016), and also correlated with structural empowerment subscales (Spencer & McLaren, 2016).

2.2.2 Psychological empowerment

Psychological empowerment is grounded on motivational theory, and constructed by the working environment and specific to each work situation (Casey et al., 2010). Psychological empowerment also leans on Bandura's (1982) work on self-efficacy and is related to an individual's perceptions of their confidence in performing their job (Meng et al., 2016). More widely, psychological empowerment is seen as 'a cultural, social or psychological process' by which individuals have control over their needs and make decisions (Fan et al., 2016).

It has been suggested that psychological empowerment is an outcome of structural empowerment (Casey et al., 2010; Kennedy et al., 2015), and is a worker's reaction to the empowering structures in their workplace (Laschinger et al., 2007; Connolly et al., 2018). Thus, psychological empowerment can both influence and be influenced by other perspectives and factors (Corbally et al., 2007), as well as attitudes and behaviors (O'Brien, 2011). However, psychological empowerment can also be seen as the mediator between structural empowerment and work-related and individual outcomes, e.g. in regard to job satisfaction (Dahinten et al., 2014; O'Brien, 2011; Hagerman et al., 2016; Meng et al., 2016; Hagerman et al., 2017; Li et al., 2018).

Psychologically empowered employees believe that working conditions correspond to their values, thus giving their work meaning. Furthermore, psychologically empowered employees feel confident in their ability to act in the workplace and control their work (Laschinger et al., 2007; Li et al., 2013).

One way to represent psychological empowerment is to present it as three interdependent dimensions, namely verbal, behavioral, and outcome empowerment (Irvine et al., 1999). Verbal empowerment includes an employee's ability to express their own opinion, to discuss their own views in group meetings, to participate in decision-making, and to state their own opinion about work-related problems. Behavioral empowerment refers to the ability to identify problems and to work in groups to solve them. Also, it includes group working, preparation of reports, and the management of a challenging job. The ability to learn new skills, use analytical skills for collecting data about work problems, and being able to recommend solutions are a part of behavioral empowerment. Outcome empowerment includes the ability to determine reasons for problems and being able to solve them. It also refers to the ability to improve work, to change the way work is done in the hospital, and to increase the overall

effectiveness of the hospital (Irvine et al., 1999; Suominen et al., 2001; Suominen et al., 2005; Suominen et al., 2006; Suominen et al., 2007; Suominen et al., 2008; Rankinen et al., 2009; Trus et al., 2011).

Previous research (Suominen et al., 2005) showed that nurse managers' psychological empowerment was quite high and that the verbal, behavioral and outcome dimensions correlated with each other. In particular, nurse managers had more confidence in their abilities related to verbal and behavioral empowerment, but were less confident in their abilities related to outcome empowerment (Suominen et al., 2005). According to previous research, nurse managers' psychological empowerment has also been related to several demographic variables, and other factors such as autonomy, job satisfaction (Suominen et al., 2005; Casey et al., 2010), job motivation (Suominen et al., 2005), and also stress (Suominen et al., 2005) and its symptoms (Hagerman et al., 2016).

2.3 Nurse managers' power

Power is a comprehensive concept, thus, it is difficult to define it because it appears in different ways and in different contexts (Bradbury-Jones et al., 2008; Sieloff & Bularzik, 2011; Peltomaa et al., 2012; Viinikainen et al., 2015; Sepasi et al., 2016; Ali & Sieloff, 2017). Power is rather a new concept for nursing science and while it can be viewed as a positive notion (Sieloff, 2003; Sieloff, 2004; Bradbury-Jones et al., 2008; Fackler et al., 2015; Chang et al., 2016), it can also take on a negative nature (Ponte et al., 2007; Painter, 2010; Basaran & Duygulu, 2015; Taylor & Taylor, 2017).

The word 'power' originates from the Latin 'potere' and can be classified in several ways. Power can be understood in three variations: power-from-within (self-esteem), power-over (domination), and power-with (shared power) (Bradbury-Jones et al., 2008). It can also be defined as 'power to' (the ability to achieve goals) and 'power over' (the ability to influence the decisions of others) (Peltomaa et al., 2012). Furthermore, power can be viewed from three theoretical perspectives, namely critical social theory, organizational and management theories, and social psychological theories (Kuokkanen & Leino-Kilpi, 2000; Bradbury-Jones et al., 2008). Also, it can be considered from personal (power owed by personal characteristics and behaviors) and positional (power owed by position and responsibilities) perspectives (Basaran & Duygulu, 2015). Power may also be categorized by identifying five sources of power: reward, coercive,

legitimate, referent, and expert power, and these can be used individually or in combination (McEwen & Wills, 2002). Particular interest should be paid to expert power as being power derived through knowledge, skills and experience in a specific area (McEwen & Wills, 2002; Manojlovich, 2007; Fackler et al., 2015). Knowledge and experience are considered very important in health care organizations (Bartos et al., 2008). Power and knowledge are related to each other and their relationship is expressed in the adage 'where there is power, there is also knowledge' (Peltomaa et al., 2012). Power is also integral to empowerment (Udod, 2012; Udod & Racine, 2017). Several definitions of power are presented in Table 1.

Table 1. Definitions of power

Source	Definition
Roscigno & Hodson, 2004 (cit. Bartos et al., 2008)	Power occurs as a result of a reflection of one's own sense of dignity and work satisfaction in the workplace
Kanter, 1977 (cit. Bogue et al., 2009)	Power is the ability to mobilize resources to do things
Merriam-Webster, 2010 (cit. Painter, 2010)	Power can be presented as the ability to act effectively and influence others
Ang, 2002 (cit. Brunetto et al., 2012)	Power relates to the degree of the decision-making at discretion
Kanter, 1979 (cit. Basaran & Duygulu, 2015)	Power can be defined as the ability to achieve goals for success
Parsons, 1954 (cit. Fackler et al., 2015)	Power can be described as the ability to achieve goals
Barrett, 1989 (cit. Chang et al., 2016)	Power can be determined as the ability to participate deliberately in the ongoing change

Due to the diversity of perspectives and forms that power takes on, there has been no single definition of power. The definition depends on a particular situation and purposes that power is applied to.

Nurses need to use power to work effectively with and influence patients, physicians and other health care specialists. It has also been reported that powerless nurses work less effectively resulting in poorer patient outcomes, are less satisfied with their work, and are more likely to suffer burnout and depersonalization (Manojlovich, 2007; Peltomaa et al., 2012).

Nursing power is essential for nurse managers, and using it has been seen to assist in directing the changes in the health care organization (Fackler et al., 2015; Viinikainen et al., 2015), helps to improve working environment (Ponte et al., 2007; Fackler et al., 2015), and has an impact on nursing practice (Ponte et al., 2007). Nurse managers act as leaders of a nursing group, thus powerful nurse managers make opportunities for their nurses to apply their knowledge and skills efficiently in achieving group goals, and also provide more resources to power for their nurses. Power can be therefore seen as a key component of nursing management (Viinikainen et al., 2015).

Previous research by Viinikainen et al. (2015) showed that nurse managers experienced a high to moderate level of power, although significant differences were found between background variables and the overall level of power. This study describes power as the ability of the nurse manager to mobilize resources, achieve goals, and act effectively in order to perform unit and organizational tasks and duties.

2.4 Organizational social context

Social contexts identify individual interpersonal networks of the individual and are defined by norms and expectations (e.g. culture), and also perceptions (e.g. climate) that encourage and influence certain individual attitudes and behaviors (Glisson, 2002; Aarons et al., 2012; Glisson & Williams, 2015). Health care service organizations create their own social context (Glisson et al., 2012). The organizational social context is comprised of interpersonal relationships, values, social norms, personal perceptions, behavioral expectations, attitudes and other factors that guide how the employees of an organization understand their working environment, collaborate with other professionals, and perceive their work. The

social context of the organization plays a central role in the development of the shared expectations, perceptions and attitudes of the professionals who provide health care services (Glisson, 2002; Glisson, 2007; Glisson et al., 2008; Glisson et al., 2012).

The organizational social context (OSC) is a multidimensional construct and may be divided into three major domains of organizational culture, organizational climate, and work attitudes (morale) (Glisson, 2007; Glisson et al., 2012). A large number of different definitions of organizational culture (54 definitions) and organizational climate (32 definitions) can be found in the literature (Verbeke et al., 1998). However, although the concepts of culture and climate are related, they are different. Culture can be described as 'the way things are done in an organization', and climate as 'the way people perceive their work environment'. Also, culture can be understood as 'a property of the organization', and climate as 'a property of the individual' (Glisson & James, 2002). Furthermore, work attitudes (morale) can be individually estimated in relation to the job satisfaction and organizational commitment of each employee. Job satisfaction and organizational commitment are thus differing, but related individual-level constructs (Glisson et al., 2012; Glisson et al., 2014).

There is evidence that culture and climate are 'shared' within work teams and differ between work teams, and that evaluated cross-level relationships link team-level organizational culture and climate to individual-level work attitudes (Glisson & James, 2002). Culture and climate influence work attitudes in their unique way. Culture is supposed to affect work attitudes of employees through their adjustment to the expectations that determine their work behavior. Climate is supposed to affect work attitudes through the psychological impact of the working environment on the employees (Aarons et al., 2012). In addition, organizational culture and climate act differently in forming work attitudes among employees (e.g. clinicians) who work in the same service system (Glisson et al., 2014).

The organizational social context forms the type of the services that are provided by the employees who work in the organization (Squires et al., 2013). The functions of the social context of an organization include accessibility, sensitivity, succession, and care models of the provided health services in the organization (Glisson & Williams, 2015).

Organizational social context influences service delivery, quality and outcomes, directs the way services are provided in the organization and has an impact on the

development of the relationships between health care professionals and patients (Glisson, 2007; Glisson et al., 2012). In addition, organizational social context may affect the success of the organization, improve quality of services, help to implement research evidence and new technologies, and the adoption of best practices (Glisson et al., 2008; Squires et al., 2013).

Research on OSC constructs is becoming popular in health care services (e.g. Glisson, 2007; Rostila et al., 2011), including nursing studies conducted during the last decade (e.g. Garcia-Garcia et al., 2011; Alharbi et al., 2012). These studies describe the connections of organizational culture, organizational climate and work attitudes (morale) to different issues, such as leadership behavior (e.g. Sellgren et al., 2008), patient safety (e.g. Singer et al., 2009), relationships with physicians (e.g. Malloy et al., 2009), organizational commitment and intent to leave (e.g. Liou & Cheng, 2010), quality improvement (e.g. Ababaneh, 2010), turnover (e.g. Banaszak-Holl et al., 2015), and others. Also researchers have used different study design approaches, including qualitative design (e.g. Poghosyan et al., 2013), mixed methods (e.g. Roch et al., 2014), correlational design (e.g. AbuAlRub & Nasrallah, 2017), cross-sectional design (e.g. Dark et al., 2017), and also employed different instruments for measuring the main constructs (e.g. Day et al., 2007; Farag et al., 2009; Karassavidou et al., 2011; Jacobs et al., 2013; Garcia Garcia et al., 2014; Glisson & Williams, 2015; Rovithis et al., 2017).

There is still a lack of studies analyzing nurse managers' in relation to the participants' perceptions of culture, climate, or morale (e.g. Mok & Au-Yeung, 2002; Sellgren et al., 2008; Singer et al., 2009; Ababaneh, 2010; Liou & Cheng, 2010; Jacobs et al., 2013; Viinikainen et al., 2015a). Despite this, however, nurse managers have a collective understanding of the organizational social context (Viinikainen et al., 2015a).

In this study, the approach of Glisson & James (2002) and Rostila et al. (2011) was applied. Organizational culture and climate are described as organizational-level constructs, and work attitudes (morale) are presented as individual-level constructs. However, the aggregation was used to compose higher-level organizational constructs from individual employee-level responses (Glisson et al., 2014). Thus, the level of agreement in the responses of the nurse managers was assessed by the index of the within-group consistency of responses. Also, OSC constructs were analyzed from organizational and team level. A team was represented as a group of workers (nurse managers) that have a common task, a common working environment, and a common supervisor (Rostila et al., 2011).

Previous research has found that nurse managers divided into teams tended to report a high level of agreement concerning their organizational culture, climate, and morale. Also, the OSC in the organizations has been shown to be consistent (Viinikainen et al., 2015a).

2.4.1 Organizational culture

Organizational culture serves as a 'normative glue' that keeps employees together in the organization (Alharbi et al., 2012). It can be determined as norms, values and beliefs (Gershon et al., 2004; Sellgren et al., 2008; Farag et al., 2009; Malloy et al., 2009; Ababaneh, 2010; Jacobs et al., 2013), behavioral expectations (Sellgren et al., 2008; Glisson & William, 2015), practices (Malloy et al., 2009; Jacobs et al., 2013), and rituals (Sleutel, 2000) that are shared by the group members in the organization. Also, it can be described as a 'system of symbols and interactions' that is determined in each organization, and the way of behavior, thinking, and beliefs of the employees (AbuAlRub & Nasrallah, 2017). Furthermore, culture is accepted to be a property of the organization (Sellgren et al., 2008; Bellot, 2011), therefore, members of the organization can control, influence and change it. As a result, it develops over the time and is not static (Bellot, 2011).

Organizational culture can be determined by 'layers'; in particular, an outer and inner layer (Glisson, 2002; Glisson & James, 2002; Glisson et al., 2008; Glisson et al., 2012; Glisson & Williams, 2015). The outer layer is presented by behavioral expectations, and the inner layer represents values and assumptions (Glisson, 2002; Glisson & James, 2002; Glisson et al., 2008; Glisson et al., 2012). Furthermore, behavior can be described as a visible part of culture, and values as an invisible part of culture (Glisson, 2002; Glisson & James, 2002; Glisson et al., 2008). However, organizational culture is expressed among employees through their shared behavioral expectations more than through values and assumptions (Glisson, 2002; Glisson & James, 2002; Glisson & Williams, 2015).

Organizational culture can be seen as having three typical subcultures, in particular, bureaucratic, innovative, and supportive. The authority and hierarchy in the organization, and also the regulation and systematization of the work characterize a bureaucratic culture. In an innovative culture, employees are encouraged to be creative and free-minded, and also to achieve results and take risks. A supportive culture promotes a friendly environment and supports openness, fairness and honesty amongst employees. Especially, these subcultures

are seen as the most important and complex in an organization in comparison with other subcultures, e.g. task subculture, role subculture (Ababaneh, 2010).

Culture can be described as a 'social control mechanism' that establishes expectations about particular attitudes and behaviors of the group members, so directing their behavior (Sleutel, 2000). The expectations and values about important issues in the organization are represented in the behavior of the group members and may socialize these members who look for ways of behavior that meet the expectations of their work environment (Aarons et al., 2012). The socialization of new members in an organization is implemented through social processes such as modeling, support and authority (Glisson & Williams, 2015).

Culture involves values that are related to the way work is done in the organization (Banaszak-Holl et al., 2015). Individual socialization during life forms values that are different for each individual, due to issues of age, experience and culture (Hendel & Kagan, 2014). Values represent an understanding of what is right or wrong and help to decide what behavior is desirable to others (Hendel & Steinman, 2002). Values shape an individual's attitudes, perceptions and beliefs, and also have an impact on the way individuals perform their roles and responsibilities (Hendel & Steinman, 2002; Hendel & Kagan, 2014). Thus, the promotion of organizational culture is used as a managerial tool for improving the working environment by means of the main values that are essential for individual and organizational efficacy (Banaszak-Holl et al., 2015).

Organizational culture can be assessed using the OSC measurement system. It assesses culture by three dimensions: rigidity, proficiency, and resistance (Glisson et al., 2008; Aarons et al., 2012; Glisson et al., 2012; Glisson & Williams, 2015; Beidas et al., 2014; Olin et al., 2014; Beidas et al., 2018).

Employees report a rigid organizational culture to be when they are expected to experience only a small amount of discretion and flexibility in their work performance, have a limited contribution to the main management decisions, and feel controlled by numerous bureaucratic rules and regulations (Glisson, 2007; Glisson et al., 2008; Aarons et al., 2012; Glisson et al., 2012; Patterson-Silver Wolf et al., 2013; Glisson et al., 2014; Olin et al., 2014; Glisson & Williams, 2015). Rigidity is evaluated by subscales that measure centralization and formalization (Glisson et al., 2008; Aarons et al., 2012; Glisson et al., 2012; Olin et al., 2014; Glisson & Williams, 2015; Beidas et al., 2018).

A proficient organizational culture is described by the expectations that employees will be responsive and attentive to the needs of each client, placing their well-being first, and also clinically skilled and have up-to-date knowledge (Glisson, 2007; Glisson et al., 2008; Aarons et al., 2012; Glisson et al., 2012; Patterson-Silver Wolf et al., 2013; Glisson et al., 2014; Olin et al., 2014; Glisson & Williams, 2015). This dimension is measured by items assessing subscales of responsiveness and competence (Glisson et al., 2008; Aarons et al., 2012; Glisson et al., 2012; Olin et al., 2014; Glisson & Williams, 2015; Beidas et al., 2018).

A resistant organizational culture expects employees to show little interest in change or in new ways of service provision, and suppress any innovation in their working environment with passiveness (Glisson, 2007; Glisson et al., 2008; Aarons et al., 2012; Glisson et al., 2012; Patterson-Silver Wolf et al., 2013; Glisson et al., 2014; Olin et al., 2014; Glisson & Williams, 2015). This dimension includes subscales measuring apathy and suppression (Glisson et al., 2008; Aarons et al., 2012; Glisson et al., 2012; Olin et al., 2014; Glisson & Williams, 2015; Beidas et al., 2018).

Organizational culture can be considered as a 'social force' that is invisible, however, it affects the behaviors of the employees (Springer et al., 2012; Hogan & Coote, 2014). It is considered to ensure the quality of the provided services (Alharbi et al., 2012; Rovithis et al., 2017). Organizational culture also plays a crucial role in job satisfaction and staff turnover, and may improve managerial procedures and influence budgeting (Rovithis et al., 2017).

Organizational culture affects the behavior of all of the employees and groups within an organization, and has an impact on all issues of organizational life, e.g. how decisions are made, how employees are treated, and the organization's responses to its environment (Spath et al., 2013).

The nursing profession and also individual nurse's actions in the organization are guided by their values (Hendel & Steinman, 2002; Hendel & Kagan, 2014). Culture tends to influence managerial strategies (Sellgren et al., 2008). Managers can build an organizational culture that has an impact on employees' behavior by developing particular values and norms, both of which can be seen in artefacts (e.g. organizational rituals) that are aimed to bring about desired behaviors (Hogan & Coote, 2014).

A survey of managers (Jacobs et al., 2013) showed that organizations tend to have a balanced culture rather than a dominant culture. Previous research on

organizational culture has shown that participants (including managers) worked in a culture that highlighted particular rules, and supported participation and teamwork. Also, culture correlated with organizational resources and patient safety climate, and the relationships between them were strong (Singer et al., 2009). Furthermore, respondents (including managers) indicated that culture plays a stronger role in quality improvement practices and has a positive impact on it, and culture and quality improvement practices have been seen to have a strong positive correlation (Ababaneh, 2010).

2.4.2 Organizational climate

Climate is a multidimensional construct (Farag et al., 2009; Mrayyan, 2009). It is described as a stable working environment that is perceived by the employees, has an influence on their behavior, can be characterized in terms of the values of the environmental attributes (Bellot, 2011), and is affected by organizational events (Mok & Au-Yeung, 2002). Climate changes quickly in response to the ongoing events and organizational decisions that occur in an organization on a day-to-day basis (Springer et al., 2012).

Organizational climate can simply be defined as the attitudes, feelings and behaviors that represent the working atmosphere in an organization (Sellgren et al., 2008; Karassavidou et al., 2011). As seen as the atmosphere of work in a particular environment, it also includes the norms, values, policies and procedures of the organization (Mrayyan, 2009). Climate represents the general psychological atmosphere of a particular organization, and can influence individual work-related attributes such as motivation, satisfaction and behavior at work (Mok & Au-Yeung, 2002). Furthermore, organizational climate can be described as the shared employees' perceived psychological impact of the work environment on their personal well-being and function (Verbeke et al., 1998; Glisson & Green, 2011; Aarons et al., 2012; Glisson et al., 2012; Beidas et al., 2014; Glisson et al., 2014; Kutash et al., 2014; Olin et al., 2014; Beidas et al., 2018), and also on their motivation and performance (Glisson & Williams, 2015) within the organization.

Climate can be perceptually represented in terms of the practices, procedures and policies of the entire organization or unit (Sleutel, 2000; Singer et al., 2009). These perceptions of employees are understood as being external or 'closer to the surface' of a particular organization (Sleutel, 2000). There are several dimensions that are used to understand climate, including flexibility, responsibility, standards,

rewards, clarity, and team commitment. Flexibility is related to feelings about constraints the employees have in their working environment. Responsibility concerns feelings regarding the authority that is delegated to the employees. Standards relate to the feelings that employees experience when management set performance and organizational goals. Rewards are related to the employees' feelings of recognition by rewarding them for doing a good job. Clarity concerns feelings that the employees know what is expected of them and understand how these expectations are related to the organizational goals. Team commitment relates to feelings that employees are proud to be affiliated with the organization and will make every effort when required (Snow, 2002).

The formation of an organizational climate can be described from three theoretical approaches: objective, subjective, and interactionist. The objective approach relates to the organizational conditions that shape members' attitudes, values and perceptions of ongoing events within organization. Thus, it can be defined as the 'manifestation of organizational structure'. The subjective approach identifies that climate originates from the individual, and is a feature of the individual, and thus presents its 'subjective nature'. The interactionist approach is a combination of objective and subjective issues that are understood as the 'interaction between organizational and individual characteristics' (Garcia Garcia et al., 2014).

Also, climate involves interactions and is observed through the everyday organizational activities that occur in the employees' work environment (Farag et al., 2009). Social interactions in the organization are described by behaviors, abilities and feelings that are directly or indirectly perceived by the employees (Garcia-Garcia et al., 2011). The direct or indirect perceptions of an employee's work environment influence their motivation and behavior (Mok & Au-Yeung, 2002; Farag et al., 2009), and their observations have an impact on their perceptions about organizational goals and priorities (Farag et al., 2009).

Organizational climate can be evaluated using the OSC measurement system. It measures climate by three dimensions: engagement, functionality, and stress (Glisson et al., 2008; Aarons et al., 2012; Glisson et al., 2012; Glisson & Williams, 2015; Beidas et al., 2014; Olin et al., 2014; Beidas et al., 2018). An engaged organizational climate is represented by the employees' perception that they are able to accomplish work-related activities and remain personally involved in their work with clients (Glisson, 2007; Glisson et al., 2008; Glisson & Green, 2011; Aarons et al., 2012; Glisson et al., 2012; Patterson-Silver Wolf et al., 2013; Glisson

et al., 2014; Olin et al., 2014; Glisson & Williams, 2015). This dimension is measured by items assessing subscales of personalization and personal accomplishment (Glisson et al., 2008; Glisson & Green, 2011; Aarons et al., 2012; Glisson et al., 2012; Olin et al., 2014; Glisson & Williams, 2015; Beidas et al., 2018).

When working in functional organizational climate, employees report that they receive co-operation and support from co-workers and administrators that they feel is needed to perform their job, and have a well-defined understanding of their roles in the organization and their contribution to its success (Glisson, 2007; Glisson et al., 2008; Aarons et al., 2012; Glisson et al., 2012; Patterson-Silver Wolf et al., 2013; Glisson et al., 2014; Olin et al., 2014; Glisson & Williams, 2015). In this dimension, functionality is evaluated by subscales measuring growth and advancement, role clarity, and co-operation (Glisson et al., 2008; Aarons et al., 2012; Glisson et al., 2012; Olin et al., 2014; Glisson & Williams, 2015; Beidas et al., 2018).

A stressful organizational climate is described by the employees' perceptions that they are emotionally exhausted by their work, overwhelmed in their work, and are unable to complete necessary tasks and responsibilities (Glisson, 2007; Glisson et al., 2008; Glisson & Green, 2011; Aarons et al., 2012; Glisson et al., 2012; Patterson-Silver Wolf et al., 2013; Glisson et al., 2014; Olin et al., 2014; Glisson & Williams, 2015). This dimension includes subscales measuring emotional exhaustion, role conflict, and role overload (Glisson et al., 2008; Glisson & Green, 2011; Aarons et al., 2012; Glisson et al., 2012; Olin et al., 2014; Glisson & Williams, 2015; Beidas et al., 2018).

In health care settings, organizational climate can be defined as the nurses' perceptions about the health care organization, organizational support, quality of care, nursing management, and expertise (Mrayyan, 2009), and also includes the behaviors of the group and structural characteristics of organizational life (Poghosyan et al., 2013). The organizational climate of the health care organization has a direct impact on nurses' behavior, well-being, and work-related health outcomes (Roch et al., 2014). An ideal organizational climate in a health care system is understood by the presence of a greater extent of nurse autonomy, control of nursing practice and its conditions, as well as by the better relationships with physicians that nurses have (Aiken et al., 2002; Malloy et al., 2009). Thus, nurse managers need to react and respond to the organizational climate in order to create a positive work environment that leads to the achievement of organizational goals (Garcia-Garcia et al., 2011).

Previous research on organizational climate has shown that nurse managers are an essential link in creating the organizational climate, and that the climate had stronger relationships with job satisfaction. Furthermore, nurse managers should develop appropriate leadership behaviors that motivate their staff, manage change, and demonstrate care about their subordinates within the organization (Sellgren et al., 2008). In addition, nurse managers have been seen to have positive perceptions towards organizational climate with higher evaluations of leadership, recognition and teamwork (Mok & Au-Yeung, 2002). Nurses (including nurse managers) have been seen to be satisfied with their organizational climate, however, they have also reported a low commitment to their organization and low intention to leave their work (Liou & Cheng, 2010).

Furthermore, previous research showed that organizational climate was related to nurses' (including nurse managers) psychological empowerment (Mok & Au-Yeung, 2002). Research involving nurse practitioners at the administrative position has shown work climate has correlations with leadership behavior and job satisfaction (Sellgren et al., 2008). In addition, the organizational climate of registered nurses (including nurse managers) has been seen to significantly correlate with demographic issues (e.g. age, education, experience, marital status), positively correlate with organizational commitment, and negatively correlate with an intention to leave (Liou & Cheng, 2010).

2.4.3 Morale (work attitudes)

Morale is a complex phenomenon that includes various issues (McFadzean & McFadzean, 2005). A definition of morale is provided in combination with several terms such as job satisfaction, job motivation, employees' attitudes, job performance, and organization commitment (Patterson-Silver Wolf et al., 2013). It can also be understood as an 'attitudinal response to work conditions' that may influence the behavior of the employees in the organization (Wang et al., 2018).

Morale is supposed to include a variety of specific aspects that are job and organization-related. Generally, morale can be used to define positive feelings about the job and prescribed activities. Also, a general support for the organization and a willingness to remain in the workplace have been used to describe organizational commitment attributes that encompass the sense of morale (Weakliem & Frenkel, 2006).

Morale (work attitudes) can be determined as the employees' attachment to their organization and their positive reaction to their job (Glisson et al., 2008). In particular, job satisfaction and job commitment are considered to be employee performance-related work attitudes in an organization (Williams & Glisson, 2014). These work attitudes are described at the individual level of the employee and represent the morale dimension (Glisson et al., 2012; Glisson et al., 2014). Job satisfaction can be understood as a 'positive appraisal' of the job tasks and experiences; and organizational commitment can be described as a readiness to make every effort on behalf of the organization and continue to be a member of it (Glisson, 2002; Glisson et al., 2012).

Morale (work attitudes) can be measured by the OSC measurement system, which assesses morale by two dimensions: job satisfaction and organizational commitment (Glisson & James, 2002; Glisson et al., 2008; Patterson-Silver Wolf et al., 2013; Glisson et al., 2012; Glisson et al., 2014). Morale is an important issue in any organization. Several models exist that describe morale, however, many of them tend not to be applied to nursing (McFadzean & McFadzean, 2005). Despite this, morale is seen to contribute to the achievement of organizational goals, productivity (McFadzean & McFadzean, 2005), workplace stability and clear roles (Patterson-Silver Wolf et al., 2013), and work relationships and professional worth (Day et al., 2007). Organizational culture and climate are both associated with employees' morale (Clark et al., 2012).

It is a nurse managers' duty to build and support work morale that promotes nurses' intentions to stay in the professional work environment (Sveinsdóttir & Blöndal, 2014). Previous research on morale has shown that morale was often reported in terms of a mean score (using the T-scale score), and that demographic variables of participants (including managers working in human services) were related to morale. Furthermore, several significant relationships have been found between organizational culture and climate dimensions and morale (Patterson-Silver Wolf et al., 2013).

2.5 Summary of the overview of the literature

Empowerment is an abstract concept, thus challenges arise when trying to understand it. There are several concept analyses and theoretical approaches that describe empowerment. However, there is also a lack of a universal definition that explains the phenomenon.

Empowerment and power concepts are interrelated and are of interest to nursing management. The literature shows that the concept of power is an abstract concept, with multiple definitions, and one that can be viewed either positively or negatively. However, the large professional groups like nurses (including nurse managers) need to have power to perform their work effectively.

Despite a large number of researches on empowerment, the most common way to represent it is by two approaches, in particular, structural and psychological empowerment. Structural empowerment includes organizational structures that describe an empowering work environment, and include issues such as access to information, access to support, access to resources and opportunities for mobility and growth, and also the formal and informal power that facilitates access to these structures. Psychological empowerment can be understood as the process of becoming self-confident and successfully perform everyday tasks. It can be presented as three dimensions, in particular, verbal, behavioral, and outcome empowerment.

In recent decades, research conducted in the field of nursing empowerment involving nurse managers has mostly applied quantitative research methods. Accordingly, this perspective was also used in this study.

Organizational culture is presented as values, beliefs and expectations, but is an invisible construct and difficult to measure. So, a qualitative approach could be a better alternative for its evaluation. However, organizational climate as described by attitudes, feelings and behaviors represents an apparent construct and is easier to assess using quantitative methods. Furthermore, morale characterized by job satisfaction and organizational commitment describes the individual level of the employee. Aside from organizational culture and climate, also morale is also assessed by the validated and standardized Organizational Social Context tool developed and improved by Glisson and colleagues (e.g. Glisson & James, 2002). Especially, it is noted that despite the fact that the OSC instrument is a quantitative measure, its development has been based on qualitative work.

Culture and climate are usually evaluated together, and characterize the same phenomenon from different perspectives. In addition, morale is often represented in conjunction with job satisfaction and organizational commitment. Organizational culture and climate, and morale are critical elements that without doubt have an impact on organizational issues such as the quality of health services, the implementation of improvements, operational and financial

performance, the achievement of organizational goals, and productivity. They may also influence nurses' job satisfaction and turnover, as well as their well-being and clarity of roles. Organizational culture is a team construct, while organizational climate and morale are represented on an individual level.

Nurse managers working in teams have different skills, levels of education, and experience, but generally seek to achieve similar goals in their working environment. They share responsibility and work collaboratively, thus, good communication skills bring them together for pursuing a better approach to care than is possible when working individually. Working in a team can improve the quality of provided care and patient safety, as well as increasing job satisfaction and improving confidence in performing their roles.

According to previous research, it was found that although nurse managers were moderately structurally empowered, their psychological empowerment was of a high level. However, they experienced a high level of power. Structural and psychological empowerment were related to a few demographic variables, and to several work-related factors, e.g. autonomy, job satisfaction, job motivation, and stress. Previous research has also shown that structural empowerment correlates with psychological empowerment.

When analyzing the OSC dimensions, previous studies have found that participants' (including nurse managers) organizational culture was related to organizational issues such as patient safety, organizational resources, and quality improvement. Furthermore, the results of previous research showed that the organizational climate of respondents (involving nurse managers) correlated with several demographic variables, and organizational issues such as leadership behavior, organizational commitment, and an intent to leave. Organizational climate was also related to psychological empowerment. Employees' morale had relationships with demographic variables, and it was seen that organizational culture and climate dimensions were associated with morale.

Overall, there exists the evidence that empowerment and organizational social context dimensions are related, however, research that involves nurse managers are lacking, so this study offers valuable information concerning the issue.

3 THE PURPOSE AND RESEARCH QUESTIONS OF THE STUDY

The overall purpose of this study was to explore how empowered nurse managers were, and the connection of empowerment to power issues and the Organizational Social Context (culture, climate, and morale). The aim of the study was to describe the present situation of nurse managers' empowerment and search for knowledge that could be used to improve nurse managers' perceptions of empowerment.

The study objectives were:

- To uncover knowledge about nurse managers' work-related empowerment and identify the factors that are connected to it,
- To explore the level of power nurse managers have,
- To describe the relationships between nurse managers' work-related empowerment and organizational culture and climate,
- To define the morale relationship with nurse managers' work-related empowerment and organizational culture and climate.

The research questions of the study were:

1. How structurally and psychologically empowered are nurse managers' and what factors are connected to work-related empowerment? (Article I and II)
2. How much power at organizational and unit levels do nurse managers have and what is the connection to work-related empowerment? (Article III)
3. How is the work-related empowerment of nurse managers connected to organizational culture and climate? (Article IV)

4. How is the morale of nurse managers connected to work-related empowerment and organizational culture and climate? (Summary)

4 MATERIAL AND METHODS

The study design and phases of the study, setting and sampling are presented in this chapter. It also describes the participants involved in the study and the instruments used. In addition, the data collection and analysis, and ethical considerations related to the study are discussed in this chapter.

4.1 Study design and phases of the study

A quantitative descriptive cross-sectional study design was adopted for the present research. The study was divided into two main phases, namely a systematic literature review followed by empirical research, and was undertaken during the time period from 2010 to 2018 (Table 2).

Phase 1

In Phase 1, the systematic literature review was conducted. Altogether there were 9 publications that met the requirements for inclusion criteria in the review. The search concerning nurse managers' empowerment was conducted in the data bases for the purpose of exploring the definition of empowerment, to determine the main methodological issues of previous researches, and to identify the instruments used in the previous studies on the topic. The results of the review were used to form the basis for Phase 2 in deciding the selection of the concepts and instruments. The final results of this phase are presented and published in Article I.

Phase 2

In Phase 2, the empirical research was conducted with nurse managers (n=193), all of them female. The data was collected in state-funded 7 university and general level hospitals in Lithuania during a four-month period in 2012. The research was conducted with the purpose of identifying how empowered nurse managers were, how much power they have, what factors are connected to empowerment, and also to find out what kind of associations exist between empowerment and

organizational culture and climate, and morale. The results of this research are presented in Articles II, III, IV and in this summary.

Table 2. Phases of the study

Phases	Purposes and sub-purposes	Data and/or instruments	Year and articles
1. Systematic literature review	To synthesize the literature for similarities and differences regarding nurse managers' empowerment - to describe how empowerment was defined in previous studies - to identify the methodological characteristics of previous studies on the topic - to find out how empowered nurse managers were in previous studies - to determine what kind of methods and instruments had been used in previous studies on the topic - to analyze what factors were connected to nurse managers' empowerment	9 empirical studies met the inclusion criteria for the period 1990-2009	2010-2012 Article I
2. Empirical research	To explore the experiences and perceptions of nurse managers regarding empowerment issues	193 nurse managers working in seven university and general level hospitals	2012-2018

	- to determine how structurally and psychologically empowered nurse managers were - to explore how much power nurse managers have - to identify what factors are related to empowerment - to explain the connection between empowerment and organizational culture and climate - to find out the morale connection with empowerment and organizational culture and climate	*Structural empowerment:* Conditions of Work Effectiveness Questionnaire II (Laschinger et al., 2001) *Psychological empowerment:* Work Empowerment Questionnaire (Irvine et al., 1999) *Managers' power:* Power related items (researcher Trus) and Manager's Activity Scale (Laschinger, 2011) *Organizational culture and climate, and morale:* Organizational Social Context measurement system (Glisson & James, 2002)	Articles II, III, IV, and Summary

4.2 Setting, sampling and participants

Phase 1

A systematic literature review was undertaken in Phase 1, involving a rigorous process of selection, appraisal, synthesis and summary of the relevant literature. A systematic review process should be transparent and clear for readers in order to assess the reliability and validity of the review (Bettany-Saltikov, 2012; Parahoo, 2014). The search was conducted using defined dates, databases and keywords. The systematic review followed several steps: 1) formulation of the research questions; 2) determination of inclusion and exclusion criteria; 3) search and selection of the literature; 4) evaluation of the quality of the selected literature; 5) analysis and synthesis of the findings; 6) conclusions and dissemination.

Publications that met the inclusion criteria were included in the review (n=9). The instruments used in the previous studies were mostly presented in the form of self-administered questionnaires and were considered to be valid and reliable (Article I).

Phase 2

In Phase 2, seven university and general level state-funded hospitals were involved in the research. All of these kinds of hospitals in Lithuania were asked to participate in the study. At the time of the data collection, there were 11 hospitals, but only seven gave permissions for participation. University and general level hospitals were chosen for the research due to their high-quality standards, a wide range of provided services, and having highly qualified health care professionals, including nurse managers.

A non-probability sampling approach was applied to this research. The sample size was determined by power calculation and met the requirements for statistical analysis (Parahoo, 2014; Polit & Beck, 2015). All of the nurse managers who were working during the data collection period and voluntarily agreed to participate in the research were included in the sample (n=193). They completed the questionnaire in their working environment (hospital) at a fixed time and in a meeting setting. The response rate was 97% (Article II and III).

Nurse managers were almost equally distributed among nursing areas, in particular, medical (31.6%), surgical (32.1%) and other nursing areas (36.3%). Their

mean age was 48.4 years (SD 8.9) and their mean working experience in the administrative position was 14.7 years (SD 10.6). Nurse managers gained their qualification in medical schools (43.5%), colleges (16.1%) and universities (39.9%). Most of them held the licence of general practice nurse and were working full-time as a nurse manager (Article II and III).

Also, nurse managers were divided/grouped into teams, consisting of 5–14 individuals in accordance with the requirements of the OSC instrument (Article IV). In this research, a team was considered as a group which had a common task and common space and provided daily social contacts among members in the organizational environment (Rostila et al., 2011). Altogether there were 22 teams that were composed on the basis of their main clinical area and having common tasks (7 medical, 6 surgical, 3 infectious diseases, 3 psychiatric, 2 midwifery, 1 elderly care). When looking at the nurse managers' teams, the mean age range among the teams was 40–55.

4.3 Instruments

Phase 1

A systematic literature review was conducted using the guidelines presented by Greenhalgh (1997) and Glasziou et al. (2001). All of the selected publications were evaluated for their quality and the criteria of inclusion into the review (Article I).

Phase 2

The research was questionnaire-based. The questionnaire commenced from a cover letter (Appendix 1) and consisted of four main parts:

1) demographic (e.g. age, marital status, education) and work-related (e.g. experience, workload, work satisfaction) questions (altogether 32 questions), created by the researcher (Trus) for the study (Appendix 2),

2) empowerment items concerning structural empowerment using the Conditions of Work Effectiveness Questionnaire-II (CWEQ-II, Laschinger et al., 2001), and psychological empowerment using the Work Empowerment Questionnaire (Irvine et al., 1999) (altogether 43 items) (Article II),

3) power related items measuring individual power at unit level, created by the researcher (Trus) for this study (Appendix 2), and the Manager's Activity Scale

(MAS, Laschinger, 2011) measuring individual power at an organizational level (altogether 22 items) (Article III),

4) items related to organizational culture and climate, and morale using the Organizational Social Context (OSC) measurement system (105 items) (Glisson & James, 2002; Glisson et al., 2008) (Article IV).

Altogether there were 32 background questions, and 170 items contained in the four instruments (CWEQ-II, Work Empowerment Questionnaire, MAS, OSC) and the power related items. The structure of the instruments is presented in Table 3. The instruments are not presented in this summary, except power related items (by Trus), due to copyright protection.

Table 3. The structure of the instruments

	Instruments	Subscales/dimensions	Items	Evaluation
Empowerment	Conditions of Work Effectiveness Questionnaire-II (Laschinger et al., 2001)	*Structural empowerment*	*19*	5-point Likert scale: 1 – none 5 – a lot
		Access to opportunity	3	
		Access to information	3	
		Access to support	3	
		Access to resources	3	
		Formal power	3	
		Informal power	4	
	Work Empowerment Questionnaire (Irvine et al., 1999)	*Psychological empowerment*	*22*	10-point scale: 0 – no confidence 10 – complete confidence
		Verbal empowerment	6	
		Behavioral empowerment	9	
		Outcome empowerment	7	
Power	Manager's Activity Scale (Laschinger, 2011)	-	11	5-point Likert scale: 1 – a little 5 – much

Organizational culture and climate, and morale	Organizational Social Context measurement system (Glisson & James, 2002)	*Culture*	*42*	5-point Likert scale: 1 – not at all 5 – to a very large extent
		Rigidity	14	
		Proficiency	15	
		Resistance	13	
		Climate	*46*	5-point Likert scale: 1 – not at all 5 – to a very large extent
		Stress	20	
		Engagement	11	
		Functionality	15	
		Morale	*17*	5-point Likert scale: 1 – not at all 5 – to a very large extent

The CWEQ-II (Laschinger et al., 2001) and Work Empowerment Questionnaire (Irvine et al., 1999), and also the Manager's Activity Scale (Laschinger, 2011) were developed in Canada, and the OSC (Glisson & James, 2002) originates from the USA. The instruments were used in the Lithuanian language and back-translated into English by translators (Burns & Grove, 2009; Polit & Beck, 2015). The content validity of the instruments was confirmed by both English and Lithuanian language specialists, and also in a group meeting of nurse managers (n=8) and nurse educators (n=10) who were not participating in the research.

The questionnaire was piloted prior to the data collection in one hospital with nurse managers (n=21) divided/grouped into three teams, in order to evaluate its use in the Lithuanian context (Parahoo, 2014). Some minor linguistic changes were needed to the work-related questions based on the findings of the pilot test. The pilot data was not included in the main study data.

Nurse managers were asked to evaluate their perception on particular scales about each statement or item. Higher scores meant a higher perception. In particular, higher scores of the CWEQ-II (structural empowerment) represented a higher level of empowerment (Laschinger et al., 2011), proposing that in each

subscale 1.0–2.3 is a low level of empowerment, 2.4–3.6 – a moderate level of empowerment, and 3.7–5.0 – a high level of empowerment. A total structural empowerment score from 6.0 to 13.9 represented a low level of empowerment, 14.0–22.9 scores described a moderate level of empowerment, and 23.0–30.0 scores defined a high level of empowerment (Laschinger et al., 2011). Higher scores of the Work Empowerment Questionnaire (psychological empowerment) suggested a stronger confidence in the nurse manager's ability to do their work (Irvine et al., 1999), meaning that 0.0–4.9 is a low level of empowerment, 5.0–7.9 a moderate level of empowerment, and 8.0–10.0 a high level of empowerment.

Furthermore, a higher average score for power items (unit level power) indicated of a higher exercise of power, and higher scores for the MAS (organizational level power) represented a higher ability of the nurse manager to mobilize resources for fulfilling tasks in the organization, and are therefore associated with a more powerful nurse manager (Laschinger, 2011). In particular, the scores of unit level power represented 0.0–4.9 as having a low level of unit power, 5.0–7.9 a moderate level of unit power, and 8.0–10.0 a high level of unit power. Concerning organizational level power, the scores represented 1.0–2.3 as having a low level of organizational power, 2.4–3.6 a moderate level of organizational power, and 3.7–5.0 a high level of organizational power.

The OSC consisted of three parts (organizational culture, climate, and morale). The participants were asked to express their agreement with each statement. Their answers were calculated as the level of agreement that existed among the team members using the within-group consistency of responses (index r_{wg}) with higher values (>0.70) representing a high consistency of responses within the group.

4.4 Data collection

Phase 1

In Phase 1, the search for the literature was conducted in MEDLINE, CINAHL, Wiley Online Library, Science Citation Index Expanded and Cochrane databases. The search was implemented using the following keywords in different combinations: empowerment, nurse manager, nurse administrator, nurse leader, head nurse, and empowered nurse. Only publications in English were selected for the review during the period from January 1990 to December 2009. Empirical studies that

met the inclusion criteria were included in the review and focused on nurse managers' empowerment. A total of 9 articles were identified for the systematic review (Article I).

Phase 2

In Phase 2, the data collection was carried out during a four-month period (May, June, September, October) in 2012. The data was collected in seven state-funded university and general level hospitals that provide multi-profile health care services. The participants were informed by the researcher (Trus) about the study in a general initial meeting in each organization. Then nurse managers were divided/grouped into teams (n=22) based on their working clinical nursing area and also as having common daily tasks in the organization in collaboration with chief nurses/directors of nursing. Nurse managers were invited as a group, but individually answered the questionnaire at a time announced during the initial meeting. The researcher collected the data during the meetings that were organized in each hospital.

The data was collected by self-administered questionnaire. The cover letter provided information about the study, namely the purpose of the research, methodological issues, ethical aspects, participants' rights, and completion instructions. Each questionnaire was coded in order to use it for the data analysis. No identifying information was collected. The participants completed the questionnaires individually and returned them in sealed envelopes to the researcher who was present in the room while nurse managers were filling in the questionnaires. The completion time of the questionnaire was about 45 minutes.

4.5 Data analysis

Phase 1

A content analysis was performed to analyze the data of previous studies. This method was used to classify the data by its methodological and theoretical characteristics (Elo & Kyngäs, 2008; Krippendoff, 2013). The content analysis of the selected publications was performed in order to provide knowledge and enhance the understanding of nurse managers' empowerment (Article I).

The texts of the previous studies were analyzed and the main categories describing the phenomenon were identified. The data was presented in the form

that included the key issues: author names, year, country, journal title, study purpose, study design, instruments, validity, reliability, sample and main results. Conclusions were made and gaps in the existing knowledge were identified.

Phase 2

The empirical data was analyzed using the Statistical Package for Social Sciences (version 21.0; SPSS Inc., Chicago, IL, USA). Different statistical analysis procedures were performed. The researcher cooperated with professional statisticians to analyze the data. The data consisted of both descriptive and inferential statistics. A statistical power analysis was calculated for the determination of the sample size before the data collection was commenced. The research used an alpha level of 0.05 and a power level of 0.80 (Parahoo, 2014; Polit & Beck, 2015).

Descriptive statistics (mean, standard deviation, frequencies, percentage) were calculated to present the main characteristics of the data. The non-parametric Shapiro-Wilk test was used to evaluate whether the data was normally distributed. Also, other non-parametric tests (e.g. Kruskal-Wallis, Mann-Whitney U) were used to analyze the differences between the groups. Spearman's and Pearson's correlation coefficients were calculated to examine the connections between variables. A p-value of less than 0.05 was considered to be statistically significant. Cronbach's alpha coefficient was measured to evaluate the reliability of the questionnaire (Burns & Grove, 2009) (Articles II, III, IV).

In terms of organizational culture and climate, and morale, the within-group consistency of responses (the index r_{wg}) was calculated for assessing inter-rater agreement. In addition, a between-group analysis was conducted using intra-class correlation coefficient (ICC) and eta-squared for revealing the between-group differences among the teams on each construct (LeBreton & Senter, 2008; Glisson et al., 2012). Culture and climate profile grouping was performed using hierarchical clustering methods (Ward's clustering method, squared Euclidean distance) (Murtagh & Legendre, 2014). Also, T-scale scores were calculated for establishing the variation of difference in organizational culture and climate dimensions, and morale (Song et al., 2013) (Article IV, Summary).

4.6 Ethical considerations

The research process followed the main ethical principles and standards (World Medical Association Declaration of Helsinki, 2013; Parahoo, 2014; Polit & Beck,

2015). No vulnerable subjects were involved in the research. The research material and methods, instruments, authors, and the funding of the research are described and accurately cited in this summary and original articles. This summary book and original articles have been checked using the Turnitin Originality Check programme of the University of Tampere in relation to plagiarism, and the plagiarism reports of the programme met the requirements of originality for the respective manuscripts.

Phase 1

In Phase 1, the systematic literature review was carried out in accordance with the ethical responsibility of the researcher. Considering the literature search, the search was carried out in the official international databases held by the University of Tampere. Each publication was carefully analyzed and selected for inclusion to the review corresponding to the described inclusion criteria. The evaluation of the selected articles was performed by the researcher and co-authors of Article I. All of the content of the publications that were included in the review was accurately cited and referred to.

Phase 2

For the empirical study, ethical approval was received before the pilot test from the Ethical Committee of Klaipeda University, Lithuania. The permission to pilot the questionnaire and perform the original research was granted from the directors/director generals of each hospital that agreed to participate in the study. The research followed the main ethical principles laid out in the World Medical Association Declaration of Helsinki (2013) and by the International Council of Nurses (2012).

Permissions to use the instruments were obtained from the copyright holders by the leader of the research project (Suominen). The instruments used in the research were found to be valid and reliable in previous studies. During the process of the study, the researcher and co-authors declared no conflicts of interest. No person except the researcher collected the data, and access to the data was confined to the researcher and the statistician.

All participants received verbal (in the initial meeting) and written (in the cover letter) information concerning the research process. Written information in the form of a cover letter included information about the purpose of the study, assurances of confidentiality and anonymity, also instructions needed to complete

the questionnaire. Nurse managers were also informed that their participation was of a voluntary nature and they had the right to refuse or withdraw from the research at any time. No compensation was offered for participation in the research, and no pressure to participate was exerted by either the researcher or the hospital authorities (Parahoo, 2014).

Nurse managers were informed that team meetings were organized specifically for the purposes of data collection. The completed questionnaires were coded and included no identifying information. Also, the participants were provided with the contact information of the researcher for further discussion or any questions they might have. All of the questionnaires were returned in sealed envelopes directly to the researcher (Gray et al., 2017).

5 RESULTS

This chapter presents the essential aspects of the systematic literature review (Phase 1) and the main results of the empirical research (Phase 2). In particular, the details of reviewed studies describing nurse managers' empowerment are considered (Article I). Also, structural and psychological empowerment and the factors connected to them (Article II), power experienced by nurse managers (Article III), and the connection between empowerment and organizational culture and climate (Article IV) are presented. Unpublished data of the morale dimension of the OSC is also described in this chapter.

5.1 Nurse managers' empowerment

The literature reviewed in Phase 1 concerned the international studies describing nurse managers' empowerment. Methodological characteristics of the empirical studies revealed that the empowerment of nurse managers was investigated by different ways and study designs, but mostly it was evaluated by self-administered questionnaires. According to previous studies, it was identified that empowerment can be conceptualized in several ways, but mostly used structural and psychological approaches (Article I).

The literature review revealed that nurse managers appeared to be moderately or highly structurally and psychologically empowered. Furthermore, several factors were identified that connected to nurse managers' empowerment, e.g. stress experienced, work motivation, work autonomy, and work satisfaction (Article I).

However, due to a limited number of relevant studies, it is hard to gain a comprehensive view of the topic based on the reviewed literature. Even so, the findings of the literature review give an understanding of theoretical approaches of empowerment and measurement tools that have been used thus far.

5.2 Nurse managers' perceived work-related empowerment

Nurse managers' empowerment was measured by the CWEQ-II (Laschinger et al., 2001) and the Work Empowerment Questionnaire (Irvine et al., 1999), representing structural and psychological empowerment. Participants were asked to indicate their perception about each statement or item.

Structural empowerment

Based on the data collected for the research in Phase 2, the analysis showed that nurse managers were moderately structurally empowered (21.0, SD 2.9). The results of the structural empowerment are presented in Article II.

Nurse managers indicated most of the subscales of structural empowerment, in particular, accesses to opportunity (4.0, SD 0.6), information (3.4, SD 0.9), support (3.5, SD 0.8), and resources (3.7, SD 0.6), also informal power (3.9, SD 0.7) to be moderate and high. However, formal power was found to be moderate with the lowest evaluation (2.5, SD 0.9). Appendix 3 presents the nurse managers' evaluation of each item of the six empowering structures.

The highest evaluation (4.3, SD 0.7) concerning the access to opportunity was given by nurse managers in regard to the possibility to gain new skills and knowledge (40.4%), and the challenging work and tasks when applying own skills and knowledge were found to be high (accordingly, 3.7, SD 1.0, and 4.1, SD 0.8). Participants reported that they had access to information of the current state of the hospital and evaluated this higher (3.9, SD 0.8) than the values (3.2, SD 1.1) and aims of the top management (3.2, SD 1.1). Nurse managers indicated that they had some access to support, and evaluated the information about things nurse managers do well (3.5, SD 0.9), remarks about what could be improved (3.4, SD 1.0), and advice on problem solutions (3.4, SD 1.0) almost equally and moderately. The access to resources was also mostly evaluated higher than a moderate level (3.7, SD 0.6), giving the highest evaluation (3.8, SD 0.7) to the time available to perform the job (56.0%). The time required for reporting documents (3.7, SD 0.7) was evaluated higher that acquiring temporary assistance when needed (3.5, SD 1.0) (Appendix 3, Article II).

Formal power was found to be moderate, but nurse managers reported it with the lowest evaluation (2.5, SD 0.9) of the empowering structures. It was discovered that nurse managers were not rewarded for their work innovations and gave it the lowest evaluation (1.6, SD 1.0). But they indicated that they still had

some flexibility (3.1, SD 1.2) and visibility (2.8, SD 1.2) at work. Informal power items presented as organizational relations were found to be high (3.9, SD 0.7) (Appendix 3, Article II).

Several background factors were statistically related to structural empowerment. It was found that education correlated with access to information and access to resources. Working experience in the nurse manager's position was connected to formal power and total structural empowerment (Article II).

Psychological empowerment

Following the analysis of the data collected in Phase 2, it was found that nurse managers were quite strongly psychologically empowered (mean 8.3, SD 1.0), with higher levels of verbal (8.7, SD 1.1) and behavioral (8.7, SD 0.8) empowerment, and a moderate level of outcome empowerment (7.4, SD 1.6) (Appendix 4, Article II).

Regarding the verbal empowerment of nurse managers, this was evaluated mostly highly (above 8.0), and participants felt confident in their abilities to discuss their viewpoint with co-workers (9.0, SD 1.2) and in a working group (8.9, SD 1.1), but less confident in their abilities to express their opinion in group meetings (8.4, SD 1.6) and when stating their opinion about working problems to managers from other units (8.4, SD 1.7). As concerns behavioral empowerment, nurse managers evaluated it also highly (above 8.0). They were confident in their ability to do their work well (9.3, SD 0.8), but less confident in using their analytical (7.9, SD 1.6), also mathematical and statistical skills in their work (8.1, SD 1.6). With regard to outcome empowerment, participants evaluated it mostly giving moderate scores. Nurse managers were most confident in their ability to help co-workers to improve their work (8.8, SD 1.1), and felt less confident in their ability to change the way they do their work in the hospital (6.2, SD 2.9) (Appendix 4, Article II).

It was found that several background factors correlated with psychological empowerment. In particular, education and language spoken had significant relationships with behavioral and verbal empowerment, and also with total psychological empowerment. Outcome empowerment correlated with education. Several significant relations were found between structural and psychological empowerment (with a significance level of $p \leq 0.001$), however, although these correlations were positive, they were weak (Spearman's correlation coefficient <0.30) (Article II).

5.3 Nurse managers' experienced power

Nurse managers' power was measured by items representing individual power at unit level (researcher Trus) and using the MAS (Laschinger, 2011) to evaluate individual power at an organizational level. Nurse managers reported their general power at unit level at a moderate level (7.1, SD 1.7) (Article III).

When analyzing power items that concerned nurse managers' power at unit level in detail, it was found that their own overall power level was also of a moderate level (7.6, SD 1.3). Nurse managers scored highest their power to lead nursing practice in their unit (8.7, SD 1.3) and a moderate score was given to the power related to the facilitation of research actions among staff nurses (6.1, SD 3.0) (Article III).

The results showed that the overall organizational level power (MAS) of nurse managers was moderate (2.7, SD 0.8). Nurse managers highly evaluated their ability to intercede for someone in trouble (3.8, SD 0.9), but they felt that they were not able to obtain higher than average pay rises for subordinates (1.7, SD 1.0) (Article III).

Several background factors, in particular, the nurse managers' age, professional experience in nursing, working experience in the current unit, working experience in a nurse manager's position, and languages spoken were correlated to both unit and organizational level power ($p \leq 0.05$). It was found that structural empowerment and psychological empowerment correlated to the overall unit level power and the overall organizational level power (with a significance level of $p \leq 0.001$). Also, unit level power and organizational level power correlated significantly with each other ($p \leq 0.001$) (Article III).

5.4 Nurse managers' organizational culture and climate

The organizational culture and climate of nurse managers were measured by the OSC instrument. Based on the data collected in Phase 2, the differences between teams and organizations were calculated. The differences in culture dimensions were significant at team level in regard to resistance, and at organization level in regard to resistance and proficiency. The climate dimensions' differences between teams were significant in functionality, and between organizations in engagement and functionality (Article IV).

Furthermore, several organizational culture and climate profiles were identified based on the nurse managers' teams, and grouped into different clusters. One of the culture profiles can be seen as being close to the mean scores on rigidity, proficiency and resistance, and one of the grouped clusters can be characterized by relatively moderate level scores on these dimensions of culture. A similar picture can be seen with the organizational climate. One of the climate profiles was close to the mean scores on stress, engagement and functionality, and one of the grouped clusters was able to be characterized by relatively moderate level scores on these dimension of climate (Article IV).

Several correlations were found between organizational culture and climate, and empowerment. The correlations were statistically significant, however, most of them were weak. When culture was proficient and resistant, and climate was engaged and functional, then nurse managers were both structurally (had access to opportunity and information) and psychologically empowered (connected to verbal and outcome empowerment) (Article IV).

The results showed that the most variation was observed at both nurse managers' team and organization levels in the resistance dimension of culture and the functionality dimension of climate. However, resistance differed most at the team level, and functionality differed most at the organization level (Article IV).

5.5 Nurse managers' morale

The morale dimension was measured by the OSC instrument. The differences in morale between nurse managers' teams and the health care organizations are presented in Table 4. The T-scale scores were calculated and varied between 37.5 and 58.1 for the teams, and 44.4 and 53.7 for the organizations. The differences were both significant at team and organization levels. The differences of variation in morale were greater at the organization level than at the team level.

Table 4. Differences of morale between and within teams and organizations (n=193)

	Variance	F	p-value*	Eta-squared	ICC	Mean (T-scale)**	
						Min	Max

Teams (n=22)								
Morale	Between teams	160.8	1.72	0.04	0.16	0.09	37.5	58.1
	Within teams	93.3						
Organizations (n=7)								
Morale	Between organizations	290.0	3.12	0.00	0.11	0.13	44.4	53.7
	Within organizations	92.8						

* A p-value of less than 0.05 is considered to be statistically significant.

** Mean (*T-scale*) presents the variation between teams and organizations.

It was found that several background factors were related to morale, in particular, age, experience, and the self-reported general power of nurse managers (Table 5). However, the correlations were found to be weak (Spearman's correlation coefficient <0.30), but still seemed to be statistically significant ($p \leq 0.05$).

Table 5. Spearman's correlation between morale at individual level and background variables (n=193)

Variables	**r (p)***
	Morale
Age	0.274 (<0.001)
Professional experience in nursing	0.228 (0.002)
Working experience in the current unit	0.197 (0.006)
Working experience as a nurse manager	0.258 (<0.001)
Self-reported general power at the unit level	0.266 (<0.001)

* A p-value of less than 0.05 is considered to be statistically significant.

Several significant relationships were found between morale, structural and psychological empowerment, and organizational culture and climate dimensions. The relations were found to be mostly with a significance level of p≤0.001. Morale and empowerment correlations are presented at the individual level in Table 6. Morale correlated positively both with the structures of structural empowerment (access to information, support, resources, opportunities, formal and informal power), and all subscales of psychological empowerment (verbal, behavioral, and outcome).

The relationships of morale and organizational culture and climate are presented at the team level in Table 6. Morale significantly related to the dimensions of organizational culture and climate. A negative correlation between morale and stress was found (p<0.001), however, morale correlated positively with proficiency, resistance, engagement and functionality (p<0.001).

Table 6. Spearman's correlation between morale and empowerment (individual level) and organizational culture and climate (team level) (n=193)

Variables	**r (p)***
	Morale
Structural empowerment	0.574 (<0.001)
Access to opportunity	0.490 (<0.001)
Access to information	0.433 (<0.001)
Access to support	0.351 (<0.001)
Access to resources	0.198 (0.006)
Formal power	0.399 (<0.001)
Informal power	0.350 (<0.001)
Psychological empowerment	0.355 (<0.001)
Verbal empowerment	0.245 (0.001)
Behavioral empowerment	0.332 (<0.001)

Outcome empowerment	0.390 (<0.001)
Organizational culture and climate	-
Rigidity	NS**
Proficiency	0.658 (<0.001)
Resistance	0.526 (<0.001)
Stress	-0.370 (<0.001)
Engagement	0.674 (<0.001)
Functionality	0.810 (<0.001)

* A p-value of less than 0.05 is considered to be statistically significant.

** NS – the p-value is more than 0.05, meaning that the data is not significant.

The variation in the morale dimension of nurse managers was greater at the organization level than at the team level. Also, the results showed that morale correlated significantly both with empowerment and organizational culture and climate, however, most of the correlations seemed to be weak.

6 DISCUSSION

The overall purpose of this study was to explore how empowered nurse managers were and empowerment connection to power issues and organizational social context. This chapter presents the validity and reliability of the study. The main results are compared with earlier research findings. The conclusions of the study are made in this chapter and implications for practice, management, education, and future research are presented.

6.1 Validity and reliability of the study

Validity and reliability are the main criteria that are used for assessing the quality of the study. Validity measures the truthfulness and accuracy of the study in relation to the concept under research, and reliability can be described in terms of the consistency, stability and repeatability of the measure obtained (Burns & Grove, 2009; Polit & Beck, 2015).

The quality of this study was evaluated in relation to internal, external, and content validity, also internal consistency reliability.

Phase 1

The systematic literature review was conducted in order to analyze previous knowledge and find out nurse managers' perceptions regarding empowerment issues.

The validity of the review process was based on a structured search strategy for identifying the publications. Publications were selected from the comprehensive electronic databases, addressing inclusion and exclusion criteria, and also assessing their quality in terms of their methodological issues (e.g. study design, sample, instruments) (Boswell & Cannon, 2014; Polit & Beck, 2015). The selected publications were analyzed using content analysis (Article I). However, it is possible that some relevant publications remained undetected.

The reliability was ensured by careful preparation of research questions according to which the literature search was conducted (Burns & Grove, 2009; Polit & Beck, 2015) (Article I).

Phase 2

The empirical study was carried out across Lithuania, in 7 university and general level hospitals that were purposefully selected. The data was collected using several instruments combined into one questionnaire during a period of four months. The questionnaires were distributed to all nurse managers who were working in hospitals during the data collection period in organized meetings. The questionnaires were returned in sealed envelopes. The issues of study validity and reliability have been discussed in detail in Articles II, III, IV.

Validity and reliability represent a true picture of the concept being researched, and the validity and reliability of the instruments used in the study were ascertained by performing several tests (Polit & Beck, 2015). The sample size for the main data was calculated by power analysis and the achieved sample size met the requirements for statistical analysis (Parahoo, 2014; Polit & Beck, 2015).

The content-related validity was performed by experts (nurse managers, lecturers in nursing and management) regarding the items' adequacy of the instruments. The instruments were translated from English into Lithuanian using back translation, and were then piloted for an evaluation of their use in the Lithuanian context and to further ensure the content validity and reliability of the instruments used (Boswell & Cannon, 2014; Burns & Grove, 2009; Parahoo, 2014; Polit & Beck, 2015).

The internal validity represents the extent to which the findings of a study reflect the real situation (Boswell & Cannon, 2014; Parahoo, 2014; Polit & Beck, 2015). The questionnaires were distributed to all nurse managers working in hospitals during the data collection period. The questionnaires were self-administered, so it is possible that this aspect could reduce the internal validity due to the participants being able to answer in a way that they thought it to be correct or desirable.

The external validity relates to the generalizability of the findings to other similar populations and settings beyond the sample and situation that were studied (Boswell & Cannon, 2014; Parahoo, 2014; Polit & Beck, 2015). The study was carried out in a Lithuanian context and involved nurse managers who

represented a profile of the health care sector, therefore the representativeness of the findings at a national level can be considered to be reliable. However, the sample was rather small, so only suggestive conclusions may be made in regard to the study's application to other settings.

The reliability of the questionnaire refers to the consistency with which participants understand and answer all the questions. Careful construction and preparation of a questionnaire may ensure its consistency. However, the reliability of the questionnaire used in the study could be reduced due to the order and difficulty of the questions, and also the length of the questionnaire (Parahoo, 2014). However, despite the length of the questionnaire (202 items/statements/questions), the response rate was high (97%).

The internal consistency indicates the extent to which all of the instrument's parts measure the same characteristics. This was measured using the Cronbach's alpha coefficient. The values range between 0.00 and 1.00, and a higher reliability coefficient represents a more robust consistency of the instrument (Polit & Beck, 2015). In this study, the Cronbach's alpha values for all scales of the instruments were found to be acceptable and good (Burns & Grove, 2009). The Cronbach's alpha of the main data for the CWEQ-II was 0.80, for the Work Empowerment Questionnaire – 0.92, for the organizational culture and climate dimensions (OSC) 0.66 – 0.88 (in particular, culture dimensions: rigidity – 0.66, proficiency – 0.88, resistance – 0.68, and climate dimensions: stress – 0.85, engagement – 0.76, functionality – 0.83), and for morale (OSC) – 0.87. The instruments used have all been considered to be valid and reliable in previous studies in which they were used (e.g. Suominen et al., 2005; Laschinger et al., 2011; Rostila et al., 2011; Viinikainen et al., 2015a), and also in the Lithuanian context (e.g. Trus et al., 2011; Galdikiene et al., 2016).

6.2 Comparison with research findings of earlier studies

This study was conducted with the purpose of finding out how empowered nurse managers were and the empowerment connection to power issues and the Organizational Social Context (culture, climate, and morale). Previous research has shown that a number of studies exist that analyze the topic of nurse managers' empowerment, however, there is a lack of studies that explore the connection between work-related empowerment, power issues and the Organizational Social Context, that involve nurse managers as participants.

This study applied a quantitative descriptive cross-sectional study design. A quantitative approach is useful for the measurement of concepts like attitudes, job satisfaction, empowerment, quality of life, and others. Furthermore, descriptive studies highlight and describe the phenomenon that is observed (Parahoo, 2014). But sometimes when reporting the data, researchers use a descriptive correlational design that explains the relationships among variables that emerge from their data analysis (Polit & Beck, 2015). In addition, the main advantage of a cross-sectional design is that the researcher can obtain the answers in a matter of days or weeks, thus this approach is economical and easy to manage. However, the main limitation of this design lies in the fact that social and technological changes influence behavior and attitudes, and the same group is not studied over a period of time (Parahoo, 2014; Polit & Beck, 2015). Despite this fact, descriptive study design has been used in previous researches and seemed to be appropriate for exploring the area of nursing empowerment (Article I). Thus, this study offers valuable information on the perceptions of nurse managers concerning the phenomenon and offers recommendations that can be addressed for improving the situation.

In this study, empowerment was analyzed from two perspectives: structural and psychological. This approach finds justification in previous research on nursing empowerment (e.g. Laschinger et al., 2007; Knol & Linge, 2009; MacPhee et al., 2014; Hagerman et al., 2016; Meng et al., 2016). Without doubt, nurse managers work in a challenging and changing environment, and the results of this research showed that they experienced structural empowerment of a moderate level (Article II). These findings are in line with previous studies of nurse managers' empowerment (e.g. Patrick & Laschinger, 2006; Laschinger et al., 2011; Regan & Rodriguez, 2011; Bish et al., 2014; Oliver et al., 2014; Hagerman et al., 2016; Spencer & McLaren, 2016).

Notwithstanding the fact that the nurse managers' structural empowerment level was similar in this and previous studies; when looking in detail at empowering structures, the results of this study differ from previous researches (e.g. Patrick & Laschinger, 2006; Laschinger et al., 2011; Oliver et al., 2014; Hagerman et al., 2016; Spencer & McLaren, 2016). Formal power was evaluated lower in the present study in comparison to previous research. This reflected that nurse managers were not rewarded for their innovations, despite having some extent of flexibility in their work and visibility concerning their work-related activities. However, the importance of rewards is recognized as a powerful way to

retain employees in the professional field. In addition, rewards encourage staff to work well and are associated with job satisfaction, job engagement and quality of care (Seitovirta et al., 2018). There exist financial and psychological rewards that employees value, and which the employer can offer in exchange for the employee's contribution (Chen et al., 2015). Thus, appropriate reward systems should be built within organizations, even during reformation processes and in times of economic instability.

The finding of this study showed several correlations between structural empowerment subscales and background variables such as education and working experience as a nurse manager (Article II). Previous research has indicated that some of the demographic variables of nurse managers are related to structural empowerment (Casey et al., 2010; Patrick & Laschinger, 2006), however, there is no additional information provided on exact factors. Furthermore, the present research provides evidence that structural empowerment correlates with its subscales and psychological empowerment (Article II). These findings are similar concur with previous research (e.g. Laschinger et al., 2011; Hagerman et al., 2016; Spencer & McLaren, 2016), and in this study, the correlations were found to be statistically significant ($p \leq 0.01$).

Concerning psychological empowerment, it was found that nurse managers were highly psychologically empowered (Article II). These results are in line with previous research (Suominen et al., 2005). The findings of the present study showed that nurse managers experienced a high level of verbal and behavioral empowerment, and were moderately confident in their abilities related to outcome empowerment. Similar results have been found by other researchers (Suominen et al., 2005). The present study showed that nurse managers were not so confident in their ability to change their work within their organization and improve the way the work is carried out in the organization. Other research (e.g. Hewison, 2012) has indicated the problem that nurse managers felt powerless to make minor changes without the approval of the upper management and were also unprepared for change due to a non-involvement in organizational planning. Organizational change factors such as receiving information about the change, staff sufficiency, and confidence during the change, tend to promote work empowerment (Rankinen et al., 2009). Thus, effective change management should be implemented in order for nurse managers to have opportunities to make changes related to their work and environment.

The present study indicates correlations between psychological empowerment and its associated areas (Article II). This evidence is similar to the findings of other research (Suominen et al., 2005), but the present study found that psychological empowerment is related to several background factors such as education and working experience as a nurse manager. A previous study (Suominen et al., 2005) also showed that psychological empowerment had significant relationships with education. Thus, it can be noted that teaching empowerment is important in nursing education (Suominen et al., 2007), and that nurse educational level has an impact on outcome empowerment as a part of psychological empowerment (Suominen et al., 2001).

The nurse managers featured in the present study experienced a moderate level of general power in the unit. They also perceived overall unit level power and organizational level power at a moderate level (Article III). These results show some differences from previous research (Viinikainen et al., 2015) where nurse managers experienced a high to moderate level of power. With regard to previous coverage of resources (Pfeffer, 2010, cit. Sherman, 2018), it is important for managers to have particular qualities to build personal power, and this includes areas of ambition, energy, focus, self-knowledge, confidence, empathy with others, and a capacity to tolerate conflict. It is also obvious that managers who understand and know how to use power in their position work more effectively and provide power sources to their staff (Viinikainen et al., 2015). Thus, in order to enhance their power level, it is necessary to seek strategies that support the growth of nurse managers and the development of their abilities that are needed to achieve organizational goals and lead their unit.

In this study, several background variables were related to both unit and organizational level power (Article III). Previous research (Viinikainen et al., 2015) has shown significant differences between background variables and the overall level of power. However, specific information regarding these variables has not been published or made available.

This study revealed different levels of organizational culture, climate and morale, both at team level and also organization level in health care organizations between nurse managers (Article IV, Summary). Previous studies in health care services (e.g. Rostila et al., 2011; Viinikainen et al., 2015a; Galdikiene et al., 2016) have also provided the results concerning the OSC dimensions between teams and organizations. The present research showed that there are significant differences between teams and organizations in regard to climate, culture and morale. At

team level, significant differences were found in resistance (culture) and functionality (climate), and morale. There were also significant differences at an organizational level in regard to resistance and proficiency (culture), engagement and functionality (climate), and also morale (Article IV, Summary). There is a lack of studies presenting the OSC of nurse managers, however, one recent research conducted with nurse managers (Viinikainen et al., 2015a) indicated several different results. Notably, there were no significant differences at the organization level, but team level differences were seen to be statistically significant in regard to resistance (culture) and stress (climate). Morale had no significant differences at either team or organization level (Viinikainen et al., 2015a).

In the present study, several correlations were found between the OSC dimensions and work-related empowerment. They were statistically significant, however, they were weak (Article IV, Summary). The study also found that morale correlated with organizational culture and climate dimensions (Summary), and this result is in line with previous research (Patterson-Silver Wolf et al., 2013) with managers working in human services. The correlation between morale and stress is also worth mentioning (Summary), because when the climate is less stressful, nurse managers are more committed to their organization and satisfied with their job. This also implies that nurse managers will not become so emotionally exhausted and will be able to perform their everyday tasks and responsibilities when working in a less stressful organizational climate (Glisson et al., 2012).

Overall, the results of this study indicate that nurse managers perceive a moderate level of structural empowerment and a high level of psychological empowerment. Also, it shows there exists a connection between the two perspectives of work-related empowerment and with nurse managers' power. Additionally, the study shows that there are different levels of organizational culture, climate, and morale both at team and organization level in health care organizations between nurse managers.

6.3 Conclusions

Nurse managers' empowerment with regard to organizational culture and climate, and morale remains an unexplored topic that presents new stimuli for research. The systematic review revealed that there is evidence of conceptual and contextual clarity of empowerment, and the results showed that there exist a variety of instruments that are applicable to measuring nurse managers'

empowerment. However, there are still only a limited number of studies that address the two complex main phenomena (empowerment and OSC) that comprise the issue.

This study was carried out to investigate nurse managers' empowerment and its connection to power issues and the organizational social context (culture, climate, and morale). It presents new relevant knowledge about the nurse managers' perceptions of empowerment, its relationships with organizational culture and climate, and morale, and provides strategies for chief nurses/directors of nursing for their improvement of the work environment and developing new ways of organizing work.

The results revealed that nurse managers experienced structural empowerment of a moderate level, but were highly psychologically empowered. Despite this fact, nurse managers did not receive rewards for their work innovations, and the degree of flexibility in their role was not high. Still, there is a room for improvement in the nurse manager's ability to bring changes into their work and use analytical skills related to problem-solving. So this particular area may warrant further attention. However, the general power at unit level was considered to be only moderate and with a lot of responsibility, which presents nurse managers with opportunities to further develop practice in their unit and achieve organizational goals.

This study suggests that there are different levels of organizational culture, climate and morale at both team and organization levels. Evaluating the connection between nurse managers' empowerment and the organizational social context, it was found that the dimensions of the OSC (in particular, culture, climate, and morale) are associated with work-related empowerment and its areas. However, it is important to investigate the situation further over the time.

The findings showed that the instruments used in this study are suitable for use in a Lithuanian context, however, further testing should be considered as the OSC instrument reflects the team level perceptions and the instruments measuring empowerment are used for individual level. Also, an assessment in different health care settings would bring a deeper understanding of the complexity of the organizational social context.

6.4 Implications for practice, management, education, and future research

Based on the results of this study, the following implications for nursing practice, management, education and future research in the field of nurse managers' empowerment and organizational social context (culture, climate, morale) are offered.

Implications for nursing practice and management:

- Nurse managers felt themselves to be moderately structurally empowered. Their access to information for them to be effective in the workplace was of a moderate level. The need to find ways to promote empowerment is highlighted. Top management should create appropriate working structures so that relevant information reaches the nurse managers in a timely manner.
- Nurse managers experienced a moderate level of outcome empowerment, feeling less confident in their ability to change the way they do their work in the hospital. The involvement of nurse managers in change processes is underlined. Therefore, their activities should center on the implementation of change and this would potentially lead to an enhancement of their professional power. It is also important to reward nurse managers for the implementation of innovations at work, as this is one of the indicators that enhances organizational power.
- Nurse managers' power at both unit and organizational level was of a moderate level. Thus, power-seeking strategies should be adopted that change attitudes in health care organizations and enhance the self-confidence (understood as empowerment) of nurse managers.
- The experiences of nurse managers working in teams should be explored, as the organizational social context dimensions were greater at an organizational level than at team level. Chief nurses/directors of nursing should identify the benefits of nurse managers working in teams; thus, ensuring an appropriate working environment and strong leadership.

Implications for nursing education:

- The empowerment of nurse managers was correlated with their education. Thus, the need to address empowerment aspects and the organizational social context in nursing educational programs is highlighted.

Implications for future research:

- A lack of studies concerning nurse managers' organizational social context and its connection with empowerment offers areas for future research. However, despite this study giving a general view on the topic, specific information regarding empowerment areas and aspects, power issues, and the organizational culture, climate, and morale of nurse managers is still needed.
- Further research with a large number of nurse managers is required on a longitudinal basis for evaluating empowerment, organizational culture and climate, and morale changes in the terms of the on-going reforms of health care systems.
- Future studies using other research approaches (e.g. qualitative approaches and mixed methods) should be undertaken in order to gain a deeper understanding of the existing connections between empowerment and the organizational social context, and for exploring their impact on nurse managers' perceptions and experiences. Such studies would provide information on what behaviors may influence the leadership role, and uncover reasonable ways to achieve empowerment.

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APPENDICIES

Appendix 1. Cover letter of the questionnaire

Dear respondent,

I am currently a student in the School of Health Sciences at the University of Tampere, and I am taking a Doctoral Degree in the Nursing Program. I am presently working on my Doctoral dissertation dealing with the work-related empowerment of nurse managers.

The purpose of this study is to investigate the Lithuanian nurse managers' perceived empowerment, the impact of organizational culture, climate and morale, and demographic and work-related background factors. Through this study we are able to get new information about how nurse managers are empowered in their work in Lithuania.

The whole questionnaire consists of four parts: background items (sociodemographic and work-related), power items, managers' empowerment (the Conditions of Work Effectiveness Questionnaire-II by Laschinger et al., 2001, and The Work Empowerment Questionnaire by Irvine et al., 1999), and culture, climate and morale (Organizational Social Context by Glisson & James, 2002). The main instruments were originally developed in Canada and USA and translated from English into Lithuanian using the back-translation technique.

Filling in the questionnaire will take you about 45 minutes. Participation is voluntary, but the contribution of each nurse manager is very important. Nurse managers of the hospital have received the same questionnaire and have been asked to complete it. Your answers will give valuable information about work empowerment in nursing, and your answers are important in obtaining an accurate picture of work-related empowerment of nurse managers in our country. If you do not want to participate, please, return this questionnaire to the researcher.

The questionnaire is completely anonymous, so you are not asked to put your name on it or to identify yourself in any way. All answers will be handled confidentially and analyzed statistically. The results of the study will be published in scientific journals in a generalized way. I therefore, hope that you will feel comfortable about giving your honest answers. Please, answer each question in turn, selecting the option that the best corresponds to your own view or writing your answer in the space provided. You should fill in the questionnaire independently, without talking about the questions with your colleagues. There are no right or wrong answers; we are simply interested in learning about your opinion. When you have completed the questionnaire, please return it in the sealed envelope to the researcher who is collecting the data. The researcher will be sitting in the room all the time when you are filling in the questionnaire, and afterwards, the researcher will collect the questionnaires.

Permission to conduct the research was given by the director of the hospital xxx and in collaboration with the deputy director of nursing xxx. Also, the permissions to use the instruments (Laschinger's et al., Irvine's et al. and Glisson's et al.) have been received from the copyright holders. The whole questionnaire was approved by the Ethics Committee of Klaipeda University.

My supervisors are Prof. Tarja Suominen (University of Tampere, Finland) and Prof. Arturas Razbadauskas (Klaipeda University, Lithuania). If you have any questions concerning the study, please contact us.

Thank you for your kind cooperation!

Marija Trus

RN, Doctoral Student of Nursing Science

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Appendix 2. Background questions and power related items

Please, read the questions with attention and circle ○ or tick √ the answer which best corresponds to your own view. Please, write in the answer where it is requested.

1. Age _____ years old *(please write)*.
2. Gender:
    1) male
    2) female
3. Family status:
    1) now married
    2) never married
    3) divorced
    4) widowed
    5) living in partnership
4. Highest level of education:
    1) medical school (special secondary education)
    2) college (higher non-university education – bachelor's degree or professional degree)
    3) university (higher university education – bachelor's degree or/and master's degree)
5. You speak *(please indicate all possible)*:

Language	Native language	Languages you speak
Lithuanian		
Russian		

Polish		
English		
German		
French		
Other		

6. Your current working place:
    1) University hospital
    2) Regional hospital
    3) Other _____ *(please write)*.
7. Number of all health care professionals in the hospital _____ *(please write)*.
8. Number of nursing professionals in the hospital _____ *(please write)*.
9. Who you are subordinate to?
    1) head of unit (unit physician)
    2) chief nurse (nursing director)
    3) chief physician (hospital director)
    4) other _____ *(please write)*.
10. Your working area:
    1) medical nursing (e.g. pneumological, cardiological, gynecological, nephrological, neurological, intensive care)
    2) surgical nursing (e.g. neurosurgical, cardiosurgical, angiosurgical, abdominal surgery, plastic surgery)
    3) mental health nursing
    4) rehabilitation
    5) outpatient-consultative
    6) elderly care

7) pediatric nursing

8) midwifery

9) other _____ *(please write)*.

11. Licence:

1) general practice nurse

yes _____ no _____

2) midwifery practice nurse

yes _____ no _____

3) nursing specialization

yes _____ no _____

If you have a nursing specialization, please, indicate the nursing area:

1) anaesthesia and intensive nursing

2) community nursing

3) surgical nursing

4) mental health nursing

5) emergency medical assistance

12. Professional experience generally in nursing _____ years, if less, then _____ months *(please write)*.

13. Working experience in the present unit _____ years, if less, then _____ months *(please write)*.

14. Working experience as a nurse manager _____ years, if less, then _____ months *(please write)*.

15. Number of beds in the unit _____ *(please write)*.

16. Number of subordinates (nursing staff) in the unit _____ *(please write)*.

17. How many of your nursing staff have left the unit during the year 2011? _____ *(please write)*.

18. What is your workload in the hospital as a nurse manager?

    1) less than 0,5 full working time
    2) 0,5 – 0,75 full working time
    3) 1,0 full working time
    4) 1,0 – 1,5 full working time
    5) more than 1,5 full working time

19. What percentage do you as a nurse manager work in direct clinical practice? _____ *(please write)*.

20. Have you attended any courses on upgrading your qualification during the last 5 years?

    1) yes
    2) no

    If yes, please, add the information of what courses you participated in:
    _____

21. What kind of extra education area do you need in your work as a nurse manager? _____ *(please write)*.

22. Please evaluate your general power as a nurse manger on the scale below:

0	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
No power										**Much power**

23. Please evaluate your general responsibilities as a nurse manger on the scale below:

0	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
No responsibilities										**A lot of responsibilities**

Please write a number in the blank space beside each statement below (24-33) to indicate how much power you have working as a nurse manager. There are no right or wrong answers. Write a number in the blank for each statement, based on the following scale:

0	1	2	3	4	5	6	7	8	9	10	
No power											**Much power**

24. I have power to determine the goals of my unit _____
25. I have power to achieve the goals of my unit _____
26. I have power to facilitate the actions of my nursing staff to achieve the goals of the unit _____
27. I have power to lead nursing practice in my unit _____
28. I have power to improve nursing practice in my unit _____
29. I have power to assist my nursing staff to improve nursing practice in the unit _____
30. I have power to improve the working environment in my unit _____
31. I have power to make decisions about my unit _____
32. I have power to facilitate educational actions of my nursing staff _____
33. I have power to facilitate research actions of my nursing staff _____

	Strongly agree	Agree	Partly agree / partly disagree	Disagree	Strongly disagree
34. I have enough facilities to do my work as a nurse manager					
35. I have potential skills for handling my work as a nurse manager					
36. I often experience stress/strain in my work					
37. I have enough staff to do the job at my work unit					
38. I am committed to the nursing profession					
39. I support research utilization in my unit					

	Yes	Can not say	No
40. Are you motivated in your work as a nurse manager?			
41. Are you satisfied in your work as a nurse manager?			
42. Is work independency important to you?			
43. Is your work as a nurse manager appreciated in society?			

Appendix 3. Structural empowerment subscale items by respondents and percentage (n=193)

Structural empowerment items*	Item scores, n (%)				
	1 (none)	2	3 (some)	4	5 (a lot)
Access to opportunity					
Challenging work	1 (2.1%)	14 (7.3%)	54 (28.0%)	78 (40.4%)	43 (22.3%)
Possibility to acquire new skills and knowledge	-	2 (1.0%)	27 (14.0%)	86 (44.6%)	78 (40.4%)
Tasks when applying own skills and knowledge	1 (0.5%)	4 (2.1%)	35 (18.1%)	98 (50.8%)	55 (28.5%)
Access to information					
Present condition of hospital	2 (1.0%)	3 (1.6%)	55 (28.5%)	88 (45.6%)	45 (23.3%)
Values of top management	20 (10.4%)	12 (6.2%)	92 (47.7%)	48 (24.9%)	21 (10.9%)
Aims of top management	20 (10.4%)	13 (6.7%)	84 (43.5%)	56 (29.0%)	20 (10.4%)
Access to support					
Information about things you do well	11 (5.7%)	6 (3.1%)	66 (34.2%)	87 (45.1%)	23 (11.9%)
Remarks about what could be improved	14 (7.3%)	13 (6.7%)	65 (33.7%)	83 (43.0%)	18 (9.3%)

Advice on solutions of problems	11 (5.7%)	16 (8.3%)	63 (32.6%)	80 (41.5%)	23 (11.9%)
Access to resources					
Time for making documentation	2 (1.0%)	4 (2.1%)	69 (35.8%)	95 (49.2%)	23 (11.9%)
Time for performing work requirements	1 (0.5%)	2 (1.0%)	62 (32.1%)	108 (56.0%)	20 (10.4%)
Acquiring temporary assistance when needed	12 (6.2%)	9 (4.7%)	63 (32.6%)	84 (43.5%)	25 (13.0%)
Formal power					
Awards for innovation	126 (65.3%)	32 (16.6%)	17 (8.8%)	15 (7.8%)	3 (1.6%)
Flexibility	23 (11.9%)	34 (17.6%)	67 (34.7%)	46 (23.8%)	23 (11.9%)
Visibility	29 (15.0%)	48 (24.9%)	57 (29.5%)	46 (23.8%)	13 (6.7%)
Informal power					
Cooperating with physicians	8 (4.1%)	5 (2.6%)	18 (9.3%)	79 (40.9%)	83 (43.0%)
Being approached by colleagues for help with problems	-	4 (2.1%)	18 (9.3%)	82 (42.5%)	89 (46.1%)
Being approached by managers for help with problems	4 (2.1%)	11 (5.7%)	38 (19.7%)	75 (38.9%)	65 (33.7%)

Finding out ideas from professionals other than physicians	22 (11.4%)	20 (10.4%)	61 (31.6%)	57 (29.5%)	32 (16.6%)

* These are not the original items of the CWEQ-II, but represent the content areas. Permission to use the questionnaire was given by the copyright holders. This scale may not be used without the written authorization.

Appendix 4. Psychological empowerment subscale items by respondents and percentage (n=193)

Psychological empowerment items*	Item scores, n (%)										
	0 (no confidence)	**1**	**2**	**3**	**4**	**5 (some confidence)**	**6**	**7**	**8**	**9**	**10 (a lot confidence)**
Verbal empowerment											
Expression of own opinion in group meetings	-	1 (0.5%)	-	3 (1.6%)	2 (1.0%)	7 (3.6%)	9 (4.7%)	18 (9.3%)	36 (18.7%)	63 (32.6%)	54 (28.0%)
Expression of own opinion about work problems to administrator	2 (1.0%)	1 (0.5%)	-	2 (1.0%)	1 (0.5%)	5 (2.6%)	4 (2.1%)	12 (6.2%)	35 (18.1%)	68 (35.2%)	63 (32.6%)
Expression of own opinion about work problems to administrators of other subdivisions	1 (0.5%)	-	2 (1.0%)	1 (0.5%)	2 (1.0%)	9 (4.7%)	12 (6.2%)	8 (4.1%)	45 (23.3%)	59 (30.6%)	54 (28.0%)

Discussion of own viewpoint in a working group	-	-	-	-	1 (0.5%)	1 (0.5%)	2 (1.0%)	15 (7.8%)	44 (22.8%)	64 (33.2%)	66 (34.2%)
Discussion of own viewpoint with co-workers	1 (0.5%)	-	-	-	-	5 (1.0%)	1 (0.5%)	11 (5.7%)	29 (15.0%)	76 (39.4%)	73 (37.8%)
Participation in decision-making related to the work	-	-	-	-	1 (0.5%)	1 (0.5%)	2 (1.0%)	11 (5.7%)	40 (20.7%)	77 (39.9%)	61 (31.6%)
Behavioral empowerment											
Working in a group to solve problems	-	-	-	1 (0.5%)	1 (0.5%)	-	7 (3.6%)	19 (9.8%)	49 (25.4%)	63 (32.6%)	53 (27.5%)
Indication of work problems which need to be solved	-	-	-	-	-	3 (1.6%)	2 (1.0%)	10 (5.2%)	47 (24.4%)	70 (36.3%)	61 (31.6%)
Usage of analytic skills to gather data about work problems and giving	1 (0.5%)	-	1 (0.5%)	1 (0.5%)	4 (2.1%)	8 (4.1%)	15 (7.8%)	21 (10.9%)	65 (33.7%)	55 (28.5%)	22 (11.4%)

recommendations											
Development of new skills related to current work	-	-	-	-	1 (0.5%)	1 (0.5%)	7 (3.6%)	16 (8.3%)	39 (20.2%)	76 (39.4%)	53 (27.5%)
Usage of mathematical/statistical skills at work	1 (0.5%)	-	-	3 (2.1%)	3 (1.6%)	5 (2.6%)	10 (5.2%)	28 (14.5%)	58 (30.1%)	50 (25.9%)	34 (17.6%)
Doing the work well	-	-	-	-	-	1 (0.5%)	-	3 (1.6%)	26 (13.5%)	69 (35.8%)	94 (48.7%)
Doing more difficult work	1 (0.5%)	-	1 (0.5%)	-	-	1 (0.5%)	-	10 (5.2%)	35 (18.1%)	73 (37.8%)	10 (37.3%)
Preparation of written reports about work problems	-	-	-	1 (0.5%)	-	3 (1.6%)	5 (2.6%)	15 (7.8%)	56 (29.0%)	59 (30.6%)	54 (28.0%)
Working with co-workers in a group	-	-	-	-	-	2 (1.0%)	1 (0.5%)	2 (1.0%)	33 (17.1%)	69 (35.8%)	86 (44.6%)
Outcome empowerment											
Helping workers from different	2	-	7	8	9	15	19	29	45	43	16

departments to determine the main reasons of the hospital's problems	(1.0%)		(3.6%)	(4.1%)	(4.7%)	(7.8%)	(9.8%)	(15.0%)	(23.3%)	(22.3%)	(8.3%)
Working with workers of other hospital subdivisions in solving working problems	3 (1.6%)	-	2 (1.0%)	5 (2.6%)	6 (3.1%)	11 (5.7%)	12 (6.2%)	23 (11.9%)	62 (32.1%)	41 (21.2%)	28 (14.5%)
Making the work of the hospital more effective	1 (0.5%)	1 (0.5%)	1 (0.5%)	2 (1.0%)	3 (1.6%)	11 (5.7%)	13 (6.7%)	31 (16.1%)	62 (32.1%)	37 (19.2%)	31 (16.1%)
Helping co-workers to improve their work	-	-	-	-	1 (0.5%)	1 (0.5%)	8 (4.1%)	8 (4.1%)	47 (24.4%)	71 (36.8%)	57 (29.5%)
Helping the administrator to improve their work	5 (2.6%)	1 (0.5%)	2 (1.0%)	2 (1.0%)	4 (2.1%)	12 (6.2%)	18 (9.3%)	22 (11.4%)	50 (25.9%)	40 (20.7%)	37 (19.2%)
Changing the work in the hospital	11 (5.7%)	4 (2.1%)	11 (5.7%)	16 (8.3%)	5 (2.6%)	23 (11.9%)	20 (10.4%)	24 (12.4%)	33 (17.1%)	24 (12.4%)	22 (11.4%)

Improvement of the work in the hospital	6 (3.1%)	3 (1.6%)	3 (1.6%)	10 (5.2%)	8 (4.1%)	24 (12.4%)	16 (8.3%)	32 (16.6%)	42 (21.8%)	31 (16.1%)	18 (9.3%)

* These are not the original items of the Work Empowerment Questionnaire, but represented the content areas. Permission to use the questionnaire was given by the copyright holders. This scale may not be used without the written authorization.

ORIGINAL PUBLICATIONS

PUBLICATION I

Work-related empowerment of nurse managers: a systematic review

Trus, M., Razbadauskas, A., Doran, D., Suominen, T.

Nursing and Health Sciences 4(3), 412-420
doi: 10.1111/j.1442-2018.2012.00694.x

Work-related empowerment of nurse managers: A systematic review

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The total number of words:

Abstract

The purpose of study was to find out how nurse managers' work-related empowerment has been investigated in order to determine the level and relationships of empowerment among them. A systematic review was carried out and a literature search was conducted in certain electronic databases for the period from 1990 until 2009 using the main key words in various combinations. Only nine empirical studies in English were selected for review in accordance with the requirements for the methodological quality and inclusion criteria. The most common type of study design was descriptive survey (n = 5) and included various questionnaires, scales and interview. Nurse managers' structural, psychological and work empowerment was found to be high or moderately high. The empowerment of nurse managers correlated positively with job satisfaction, perceived organizational support, role satisfaction, managerial self-efficacy, and correlated negatively with emotional exhaustion and own health outcomes. Different theoretical approaches ensure a clear understanding of empowerment, but difficulties arise when the findings are synthesized across studies and settings because of the different theoretical frameworks used to conceptualize the empowerment.

Key words: empowerment, head nurse, leadership, nurse administrator, nurse leader, nurse manager.

INTRODUCTION

Health care organizations and leadership have changed in recent decades. Reductions in financial resources, advances in techniques, a rapid increase in and the new forms of information have contributed to these changes. Organizational and professional changes have had an impact on the role of the nurse manager (Hyrkas et al., 2003). Head nurses are expected not only to manage the care of patients, but also to lead their departments professionally and administratively (Duffield et al., 2001). Leadership is a key factor in creating the empowering conditions in the workplace (Laschinger et al., 2009). Furthermore, empowerment is presented as the way by which organizations can move from the static and rule-bound past to the dynamic and flexible future (Procter et al., 1999).

The concept of empowerment

Empowerment has become a widely used concept in nursing, but due to its ambiguity it is difficult to define, as it assumes different forms in different contexts (Bradbury-Jones et al., 2008). In addition, empowerment as a goal is described in the literature as power, control, ability, competence, self-efficacy, autonomy, knowledge, development, self-determination and strengthening of the position of one's own group in society (Arneson & Ekberg, 2006). Besides, work-related empowerment can be conceptualized as three unique, but interdependent concepts, namely verbal, behavioral, and outcome empowerment (Irvine et al., 1999).

Several concept analyses of empowerment in nursing have been published (e.g., Gibson, 1991; Skelton, 1994; Gilbert, 1995; Kuokkanen & Leino-Kilpi, 2000; Nyatanga & Dann, 2002; Manojlovich, 2007; Bradbury-Jones et al., 2008) and the empowerment has

been conceptualized in different ways in the literature. The three theoretical approaches most often used in the published literature are: critical social theories (e.g., Parker & McFarlane; Fulton), social psychological theories (e.g., Rappaport; Conger & Kanungo; Thomas & Velthouse; Spreitzer), organizational and management theories (e.g., Kanter; Chandler; Laschinger) (Kuokkanen & Leino-Kilpi, 2000).

Those who link empowerment to critical social theory believe that it can only be understood in relation to the history and structure in which nurses find themselves (Fulton, 1997). In the context of nursing, the theory emphasizes the concept of empowerment in different social situations, such as among nurses, between nurses and patients and *vis-à-vis* other health care professionals (Kuokkanen & Leino-Kilpi, 2000).

From a psychological perspective, empowerment is viewed as the perception or attitudes of individuals towards their work and their role in the organization (Spreitzer, 1995). It is noticed that the structural factors within the work environment have a greater impact on the work attitudes and behavior of employee than personal predispositions or socialization experiences. The organizational empowerment structures described by Kanter are: access to information, support, resources needed to do the job, and opportunities to learn and grow (Laschinger et al., 2007).

For managers the verb 'to empower' has traditionally meant 'to authorize', 'to give authority to others' or 'to invest power in another person'. When the nurse manager uses the term 'empower', it automatically denotes a kind of unequal relationship between a superior and a subordinate. In health care settings, an unequal power base exists among administrators, physicians and nurses as a result of competing goals of administration and the coexistence of multiple lines of authority. The rigidity of

hierarchical rule-bound structures specifically has been blamed for nurses' inability to control the content of their practice sufficiently (Kerfoot, 1994).

Managers are positioned ideally to create the structural conditions for work effectiveness. In addition, Laschinger et al. (1999) cite Kanter (1977), who described the organizational empowerment model where the structural factors such as access to information, support, resources and opportunity in the work setting are posited to have a major influence on the employees' ability to accomplish their work. Furthermore, workplace empowerment is a management strategy that has been proved to be successful in creating a positive work environment in the organizations (Laschinger et al., 2009). In organizational settings empowerment creates and sustains a work environment that facilitates the employee's choice to invest in and own personal actions and behaviors resulting in a positive contribution to the organization's mission (Marquis & Huston, 2000). Nurses and nurse managers who experience strong empowerment have qualities that form a strong sense of self-esteem, successful professional performance and progress in their work. Besides, higher unit-level structural empowerment has been found to be associated with lower emotional exhaustion (Laschinger et al., 2011).

Some empirical studies on nurse managers' empowerment have been published, but no systematic review of the topic was found. However, a systematic review of front-line managers' job satisfaction has been published in which an association between job satisfaction and empowerment was noted. The findings of the above mentioned review indicated the existence of a significant positive relationship between empowerment, span of control, organizational support, and job satisfaction (Lee & Cummings, 2008).

Further improvement is needed in the area of empowerment at the management level because those nurse managers who feel empowered in their nursing leadership roles do not only have access to more power themselves, but are also able to support the mechanisms that would offer employees with an opportunity to empower themselves, and, accordingly, this could make an important contribution to the health care setting in hospitals where the nurse managers work.

PURPOSE AND RESEARCH QUESTIONS

The purpose of this study was to find out how nurse managers' work-related empowerment has been investigated in order to determine the level and relationships of empowerment in nurse managers.

The review was guided by the following research questions:

1. What were the methodological characteristics of the empirical studies on the topic?
2. How were nurse managers empowered?
3. Which factors were connected to the nurse managers' empowerment?

MATERIAL AND METHODS

A literature review involves the identification, selection, analysis, and description of existing knowledge (Burns & Grove, 2001). This systematic review is centered on nurse managers' work-related empowerment, focusing on empirical research with content of nurse managers' empowerment.

Database searches

A systematic review was carried out and a literature search was conducted in August 2010 in certain electronic databases for the period from 1990 until 2009. The literature from 1990 and later was chosen because it was in 1990 that the concept of empowerment first appeared in the nursing literature. The databases searched were: MEDLINE (Ovid), CINAHL (EBSCO), Wiley Online Library, Science Citation Index Expanded (ISI). The Cochrane Library was also searched for any empirical studies on nursing empowerment, but none were retrieved. The search was performed using the following key words in various combinations: empowerment, nurse manager, nurse administrator, nurse leader, head nurse, empowered nurse. We conducted a systematic review that included setting clear objectives for the review as described by Greenhalgh (1997) and determining appropriate inclusion criteria for the relevant studies (Table1). The search using the main key words (nurse manager, empowerment) yielded a large number of studies, but when the search was limited to empirical studies, the number was significantly reduced. In total 277 studies were identified through the initial search. After checking 122 abstracts and a further review of 34 full-text articles, a total of nine studies were identified which met the inclusion criteria. The literature search and analysis was conducted by the first author and duly confirmed by the co-authors. A summary of the exclusion criteria and the number of articles included is presented in Figure 1.

Retrieval of references and processing

This systematic review comprises the studies concerned with the empowerment of nurse managers, nurse administrators, nurse leaders, and head nurses. Firstly, the titles of the articles were read and then the titles that matched the research questions and the key

words were retrieved. Only papers written in English and published in scientific journals were selected for further review. Editorials, letters, conceptual papers, duplicate texts, and non-empirical articles were excluded. The studies related to the approach to the empowerment of staff nurses, nurse assistants, nurse practitioners and nursing students were also excluded. Secondly, the abstracts were checked according to the inclusion criteria with regard to nurse managers' empowerment research, participants and results. The abstracts considered relevant to the research questions were retained and the full-text papers were retrieved for further review. Thirdly, after proper examination of the full texts, a list of studies included and excluded was compiled. The articles were analyzed using content analysis to categorize the data. Content analysis is known as a method of analyzing documents. It is a research method for making replicable and valid inferences from data to their context, with the purpose of providing knowledge, new insights, representation of facts and practical guide to action; it also allows the researcher to test the theoretical issues in order to enhance the understanding of the data (Elo & Kyngas, 2008).

RESULTS

Methodological characteristics

The analysis of the methodological characteristics of empirical studies included their countries of origin, aims, samples, study design and instruments used.

Most of the studies on nurse managers' empowerment had been done in Canada (n = 5). Some studies originated in Finland (n = 2) and South Africa (n = 2). It can be noted that most studies were published in journals related to the managerial field such as *Journal*

of Nursing Administration (n = 3), *Journal of Nursing Management* (n = 3), *Nursing Leadership* (n = 1) (Table 2).

The aims of the studies on nurse managers' empowerment were very different. For example, some studies described perceived empowerment by managers (n = 5) and investigated the relationship between empowerment and such issues as self-efficacy, job satisfaction, burnout, and organizational support (n = 4) (Table 2).

The sample size of studies ranged from 30 for the qualitative study (Kuokkanen & Leino-Kilpi, 2001) to 487 for the quantitative study (Jooste, 1997, 2000). No statement of power analysis concerning sample size was found. All the participants were nurse managers (head nurses, first-line and middle-level managers), with the exception of the studies by Laschinger and Shamian (1994), and Kuokkanen and Leino-Kilpi (2001), who contrasted the empowerment of staff nurses with the empowerment of nurse managers (Table 2).

Nurse managers' empowerment has been investigated in different ways and with different study designs. The most common type of study design was descriptive survey (n = 5). A secondary analysis (Patrick & Laschinger, 2006) and a non-experimental design (Laschinger et al., 2007) had also been conducted. In most cases the authors compared groups formed of nurse managers of different levels and other staff. The empirical studies included various questionnaires, scales and interview (Table 2).

The instruments used in the studies on empowerment had been rigorously tested. The questionnaires were validated and considered reliable. The Cronbach's alpha coefficient is presented in Table 2. The most common instrument of empowerment used in the studies was the Conditions for Work Effectiveness Questionnaire (CWEQ) (n = 5), measuring structural empowerment. The psychological empowerment of nurse

managers was measured by Spreitzer's Psychological Empowerment Scale (n = 2). The Work Empowerment Questionnaire, measuring verbal, behavioral and outcome empowerment of head nurses was used once (Suominen et al., 2005). Jooste (1997, 2000) developed her own questionnaire on empowerment based on components linked together. One of the studies moreover used interview to elicit views on the empowerment issues of nurse managers and registered nurses (Table 2).

Nurse managers' perceptions of empowerment

No clear definition of empowerment was articulated in the empirical studies, with the exception of more recent studies drawing on specific theoretical frameworks of empowerment (Table 3). It has to be noted that the most frequently reported framework of empowerment is that proposed by Kanter (n = 5) representing the approach of organizational and management theories. Kanter's view of structural empowerment consists of organizational structures, access to which is influenced by the formal and informal power systems within the organization. Structural empowerment had been measured by the CWEQ with higher scores indicating higher empowerment. Furthermore, psychological empowerment, an alternative view of empowerment, is defined as a psychological response to an empowered work environment (n = 4) and reflects the approach of social psychological theories. It has been measured with Spreitzer's Psychological Empowerment Scale composed of four dimensions: meaning, competence, self-determination and impact. Higher scores reflect higher psychological empowerment. In addition, one study defined work-related empowerment as a process whereby the individual feels confident that he/she can act and successfully execute a certain kind of action, representing the empowerment as three unique, but

interdependent dimensions (verbal, behavioral and outcome empowerment). This kind of empowerment is connected to the psychological approach and is measured by the Work Empowerment Questionnaire by Irvine et al. (Suominen et al., 2005), with higher scores indicating higher levels of verbal, behavioral and outcome empowerment. Moreover, Jooste (2000) created her own definition and structure of empowerment for investigation, emphasizing that it is a nurse leader's own characteristics, management skills and responsibilities which are in interaction with management structures such as motivation, participation in decision-making and power sharing. Unfortunately, Jooste (1997, 2000) did not present the measurement scores for her instrument. Kuokkanen and Leino-Kilpi (2001) utilized a semi-structured interview to collect data on nurse managers' perceived empowerment.

In the majority of the empirical studies reviewed in this paper, nurse managers' structural, psychological and work empowerment was reported to be high (Laschinger & Shamian, 1994; Goddard & Laschinger, 1997; Laschinger et al., 2004; Suominen et al., 2005) or of moderate level (Patrick & Laschinger, 2006). According to Jooste (2000), the higher the nurse manager's position in the health care organization is the more empowering characteristics can be associated with her/him. Nurse managers' empowerment scores were higher than staff nurses' scores, suggesting that they perceived themselves to have greater access to the empowering structures (Laschinger & Shamian, 1994). Furthermore, access to power is greater at higher hierarchical levels of an organization; therefore the middle managers were significantly more empowered than the first-line managers (Goddard & Laschinger, 1997; Laschinger et al., 2004).

Factors connected to nurse managers' empowerment

The empowerment of nurse managers has been observed to be related to different variables such as demographic characteristics (unit speciality, education) (Suominen et al., 2005; Patrick & Laschinger, 2006), experience of stress, need for further education in leadership and development, knowledge and skills for handling the job, work motivation, importance of work independency (Suominen et al., 2005). Empowerment likewise correlated positively with job satisfaction (Laschinger et al., 2004; Suominen et al., 2005), perceived organizational support, role satisfaction (Patrick & Laschinger, 2006), managerial self-efficacy (Laschinger & Shamian, 1994), and correlated negatively with emotional exhaustion and own health outcomes (Laschinger et al., 2004).

DISCUSSION AND LIMITATIONS

Nurse empowerment has been studied for decades, and there has been a growing research interest in the subject. Nurse managers' empowerment is one of the fundamental elements of managerial and organizational effectiveness, and is important in management practice. However, to the best of our knowledge this is the first systematic review of nurse managers' empowerment. The results of empirical studies were classified into three main questions focusing on the methodological issues of studies, nurse managers' perception of empowerment and factors connected to it. Our analysis revealed that the weakest points of earlier studies are: lack of power analysis to justify the sample size, use of different measurement instruments and different study designs. These differences made it difficult to compare the findings across studies. Moreover, the number of comparable studies is small. In addition, our

analysis revealed that only a few studies focusing solely on nurse managers' empowerment have been published.

Our findings showed that most studies on nurse managers' empowerment had been done in Canada by Laschinger and colleagues. We assume that the researcher's own interest in the area influenced the number of studies. New studies should be encouraged because empowerment provides the proper tools, resources and environment for the development of personal effectiveness and results in positive outcomes for the organization.

According to our review, there is a lack of coherence concerning the definition of empowerment in the nursing management literature, although many recent studies have presented theoretical framework to guide their investigations. However, the differing theoretical perspectives of studies have led to such issues as different definitions of nurse managers' empowerment and utilization of different measurement instruments. The findings showed that nurse managers' empowerment has been investigated in different ways and with different study designs. The most common type of study design was descriptive survey and in most studies the researches used different questionnaires. Over the years, the data have been collected primarily by questionnaire, but more recently other methods have been used, for example, interview. Interview as a method enables a different viewpoint to understand the meaning and experience of empowerment among nurse managers in everyday practice and how it could be enhanced within their practical settings (see Kuokkanen & Leino-Kilpi, 2001). Suggestions for further research with mixed methods would shed light on how nurse managers perceive empowerment, how empowerment is maintained by the nurse

managers and additionally how it is used in the practical setting and identify the barriers to being empowered.

Nurses' workplaces should be understood as a source of power. Power and control over nursing practice contributes to a sense of empowerment that may help nurses to become empowered and use their power for their practice and for better patient care. According to the empirical studies reviewed in this paper, nurse managers' structural, psychological and work empowerment was high. Furthermore, our analysis established that the position of nurse manager in organizational settings is associated with higher perceptions of empowerment. In order to empower the nurse managers at lower hierarchical levels they need to be involved in managerial decisions, develop their specific areas of expertise, grow professionally, be motivated and responsible for their practice. Management structures within organizations contribute to the empowerment of nurse managers. Organizations that provide opportunities to influence the effectiveness of work and recognize nurse managers' efforts with positive feedback would be perceived as supportive and empowering. When nurse managers feel valued by the organization they will be inspired to participate in the achievement of their work goals. Furthermore, there is evidence of effect of nurse managers' empowerment on staff outcomes.

It has to be noted that the empowerment of nurse managers is related to different variables, e.g., job satisfaction, experience of stress, work motivation, perceived organizational support, self-efficacy. Further research should focus largely on the impact of such variables on nurse managers' empowerment because that could effect the perception of empowerment.

Several limitations of this systematic review must be conceded. The scope of the empirical studies could not be clearly determined. However, we identified the main methodological characteristics, the perception of empowerment among nurse managers and the factors connected to it. The reported methodological issues in the articles analyzed appear to be different, limiting their comparability. The investigation of nurse managers' empowerment varies in its forms and study designs. Furthermore, the review is limited in sample size because only nine papers met the inclusion criteria. One additional limitation of this review is that it only included studies published in English (Burns & Grove, 2001). Nevertheless, we can assume that the main scientific articles could be found in English internationally. However, regardless of these limitations, the review offers new evidence that is useful for future research and for guiding management practice. For example, it provides a description of the research instruments used to study nurse managers' empowerment. It offers a synthesis of findings with regard to the magnitude of nurse managers' empowerment and its relationship to other important organizational outcomes such as job satisfaction, burnout and self-efficacy.

CONCLUSIONS

Nurse managers are the vital link between higher level managers and staff nurses. The leadership provided by the nurse managers is invaluable in promoting the quality of nursing care and positive patient outcomes. It might be concluded from this systematic review that the structure of empowerment used in the empirical studies is clear at the theoretical level from different approaches. Consistent approaches to the measurement are important in enabling the comparison of results among studies. It is recommended that a more detailed international research project be undertaken in order to study nurse

managers' empowerment in different countries using the same instrument and theoretical approach. Such research would enable the examination of the impact of different health care systems, organizational structures and policies on nurse managers' empowerment. In addition, it might yield new information on whether cultural and educational differences, work setting and environment affect empowerment. Future research could also focus on a universal definition of empowerment applicable in nursing. The next step for the research could be a study on the ways in which nurse managers perceive empowerment in a natural setting (hospital) and how empowerment influences their role.

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Table 1. Inclusion and exclusion criteria

	Inclusion criteria
1.	Peer-reviewed journal articles
2.	Empirical studies
3.	English language
4.	Connected to nurse managers, nurse administrators, nurse leaders, head nurses
5.	Published from January 1990 until December 2009
	Exclusion criteria
1.	Non-empirical studies (editorials, letters, conceptual papers)
2.	Duplicate texts
3.	Language other than English
4.	Connected to staff nurses, nurse assistants, nurse practitioners, nursing students, physicians

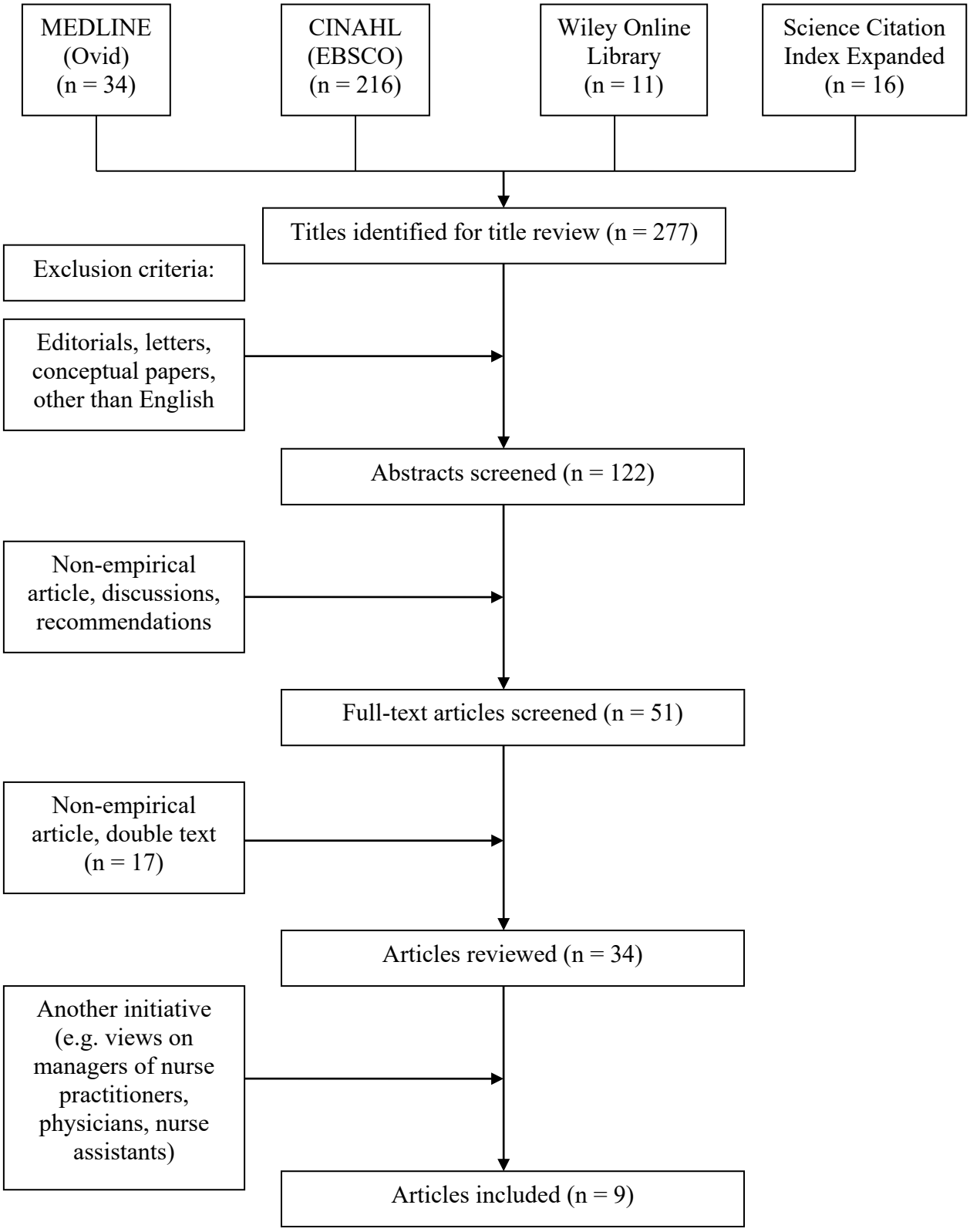

Figure 1. Search flow for nurse managers' empowerment.

Note: the key words for search were nurse manager AND empowerment, nurse leader AND empowerment, nurse administrator AND empowerment, head nurse AND empowerment in all databases from 1990 till 2009.

Table 2. Methodological characteristics of the studies reviewed

Author, year, country, journal, title	Aim of study	Study design	Method / instrument, validity and reliability	Participants / sample size, N	Main results
Laschinger and Shamian, 1994, Canada, Journal of Nursing Administration, Staff nurses' and nurse managers' perceptions of job-related empowerment and managerial self-efficacy	The link between empowerment concepts described by Kanter and the self-efficacy of managers for executing leadership role competencies described in Quinn's Competing Values Model was explored	A descriptive survey design	Conditions for Work Effectiveness Questionnaire (CWEQ), the Organizational Description Opinionnaire (ODO), the Managerial Self-Efficacy Questionnaire (MSEQ), demographic questionnaire CWEQ Cronbach's alpha reliability was 0.82. ODO-A Cronbach's alpha was 0.83 and ODO-B Cronbach's alpha was 0.89. MSEQ Cronbach's alpha reliability ranged from 0.78 to 0.96.	N = 139, 27 nurse managers and 112 staff nurses working in acute care setting	Managers' empowerment scores were higher than those of staff nurses. Managers' perceptions of job-related empowerment were related significantly to perceptions of managerial self-efficacy
Goddard and Laschinger, 1997, Canada, Canadian Journal of Nursing Administration Nurse managers' perceptions of power and opportunity	The differences in the perception of job related access to power and opportunity of nurse managers in first line and middle management positions in acute care hospitals were examined from Kanter's perspective	A descriptive, comparative survey design	CWEQ, ODO First line manager group: CWEQ subscales' alpha reliability coefficients were: support 0.88, information 0.78, resources 0.80, opportunity 0.77. ODO-A alpha reliability coefficient was 0.79 and ODO-B was 0.88. Middle manager group: CWEQ subscales' alpha reliability coefficients were: support 0.92, information 0.89, resources 0.90, opportunity 0.76. ODO-A alpha reliability	N = 91, 75 first line and 16 middle managers	Middle managers perceived themselves as having significantly greater access to the empowerment factors than first line managers. In both groups there was a strong positive correlation between access to empowerment structures as measured by the CWEQ, and the extent to presence of organizational factors that contribute to power and perception of personal organizational power as measured by ODO

			coefficient was 0.76 and ODO-B was 0.88.		
Jooste, 1997, South Africa, Health SA Gesondheid A model for the empowerment of nurses: a management perspective	The overall question of the study was which elements are necessary for the empowerment of nurses	A descriptive explorative study	Developed questionnaire based on linked together components: (a) The organizational structures of the health care organization. (b) Participative decision-making in the empowerment of nurses. (c) Motivation and reward strategies contributing towards empowerment. (d) The role of power sharing in the empowerment of nurses. (e) Attributes that are characteristic of an empowered nurse manager. (f) The management skills and responsibilities of the nurse manager, in her daily task design and management, contributing to the empowerment of nurses. The preliminary instrument was firstly critically evaluated by fifteen experienced nurse managers and a statistician. Content and face validity were confirmed by fifteen tutors of different subjects from a department of advanced nursing sciences. The process of factor analysis was used that indicated the validity of groupings of questions in the questionnaire. The item analysis indicated a reliability coefficient of 0.919 for the instrument.	N = 487, 36 top (head and senior nursing services managers), 194 middle (nursing service managers and head nurses) and 257 functional level (senior professional nurses) managers working in private and provincial hospitals, and city councils	To get functional level managers to feel empowered, they need to be involved in a number of managerial decisions. According to the functional level managers, the managerial style of the nurse manager will lead to empowerment when she/he behaves in the same way that she/he expects nurses to behave, a measure of control is exercised, nurses are encouraged to control their own practice. Nurses at the functional level feel empowered when they are assisted to work actively on their own self development by using the appropriate strategies for career progression

Jooste, 2000, South Africa, Health SA Gesondh A comparison of the viewpoints of different levels of nurse managers on empowerment in their workplace	The purpose of the study was to identify the different opinions of top, middle and functional level nurse managers on their roles in ensuring empowerment of nurses in the daily work situation	A quantitative descriptive explorative study	Questionnaire was the same as Jooste (1997). Fifteen expert nurse managers and a statistician critically evaluated the instrument in a pretest. Face and content validity were ascertained by experts in the field of tertiary nursing education that critically reviewed the questionnaire. Content validity was tested by the items represented in the conceptual framework of the study. Construct validity of the measuring instrument was done by the process of factor analysis. The factor analysis displayed six factors that corresponded with the six initial constructs of the measuring tool and therefore confirmed that the instrument complied with the requirements for construct validity.	N = 487, 36 top, 194 middle and 257 functional level managers	It could be accepted that top level managers are more empowered to make contact with key figures, give input in policy matters, have access to the necessary information and to participate in decision-making processes, than lower level managers and nurses. The higher the position of the nurse manager in the hierarchy of the health service the more empowered she/he is to make decisions in her/his working environment. It is concluded that there is a relation between the personal and leadership traits that are characteristic of an empowering nurse manager and the position of the nurse manager in the hierarchy. The higher the nurse manager is positioned in the health service the more empowering characteristics can be associated with her/him
Kuokkanen and Leino-Kilpi, 2001, Finland, Journal of Nursing Management The qualities of an empowered nurse and the factors involved	The aim of the study was to provide deeper insight concerning nurse empowerment by describing what an empowered nurse is like, how she performs her tasks, what promotes empowerment and what prevents the empowerment	Interview	The interview themes were: 1 Belief systems: what kind of values do you recognize in connection with your work and how do you act to realize them? 2 Impact: are you able to influence your own work and how can your influence be felt at present? 3 Competence: what are your strong points in your work and how can you profit from them? 4 Meaning: how important is	N = 30, all registered nurses and half of them head nurses	An empowered nurse assumes responsibility and aspires to further training and progress in her work. She/he also shows autonomy in her work. An empowered nurse's actions are goal-conscious and patient-orientated. She/he is also capable of organizing the work and making swift decisions. The activity of an empowered nurse does not remain limited to the immediate outcome of her/his work

			your work and how do you contribute to its significance? 5 Self-determination: what degree of self-determination do you have in your work and how do you exercise it? The validity of subcategories formed during the data analysis underwent a test performed by the group.		
Laschinger et al., 2004, Canada, Nursing Leadership Predictors of nurse managers' health in Canadian restructured healthcare settings	The purpose of this study was to test a theoretical model derived from Kanter's theory of organizational empowerment: linking nurse managers' perceptions of structural and psychological empowerment to burnout, job satisfaction, and physical and mental health	A descriptive, correlational design with a self-administered questionnaire	Conditions for Work Effectiveness Questionnaire-II (CWEQ-II), Spreitzer's Psychological Empowerment Scale, Maslach Burnout Inventory-General Survey, job satisfaction, energy level and frequency of physical symptoms subscales of the Pressure Management Indicator, Mental Health Index Internal consistency reliability estimates ranged from 0.68 to 0.93. CWEQ-II and Spreitzer's Psychological Empowerment Scale were validated in previous studies by the authors.	N = 286, 202 first-line and 84 middle-level managers working in acute care hospitals	Nurse managers in both groups perceived their work environment to be only moderately empowering. They reported high levels of psychological empowerment. In terms of structural empowerment, both groups of nurse managers reported greatest access to opportunity and least access to resources. Both groups rated job meaningfulness as the most psychologically empowering dimension in their work. Middle managers were significantly more empowered than first-line managers
Suominen et al., 2005, Finland, Journal of Nursing Management Work empowerment as experienced by head nurses	The aim of this study was to describe the verbal, behavioral and outcome empowerment experienced by head nurses	A structured questionnaire	Work Empowerment Questionnaire The Cronbach's alpha coefficient for verbal empowerment was 0.91, for behavioral empowerment 0.86 and for	N = 154, all head nurses	The overall score for head nurses' work empowerment was quite high. All aspects of empowerment (work, verbal, behavioral and outcome empowerment) were closely related to each other. The head nurses experienced more verbal empowerment than behavioral and outcome empowerment. Many significant correlations were

			outcome empowerment 0.87.		found between the different aspects of empowerment and the background variables
Patrick and Laschinger, 2006, Canada, Journal of Nursing Management The effect of structural empowerment and perceived organizational support on middle level nurse managers' role satisfaction	The purpose of this study was to examine the relationship between structural empowerment and perceived organizational support and the effect of these factors on the role satisfaction of middle level nurse managers	A secondary analysis	CWEQ-II, Eisenberg's Perceived Organizational Support Survey, Role satisfaction of Aiken and Hage's Alienation from Work scale The Cronbach's alpha reliabilities for the CWEQ-II subscales ranged from 0.76 to 0.79. The global empowerment scale correlated positively with the CWEQ-II ($r = 0.56$), supporting the construct validity of this instrument. The Cronbach's alpha for Eisenberg's Perceived Organizational Support Survey was 0.90. The Cronbach's alpha for Aiken and Hage's Alienation from Work scale was 0.85.	N = 84, all middle level nurse managers, working in acute care hospitals	Middle level nurse managers reported moderate levels of overall empowerment in their work environments. Structural empowerment was positively related to perceived organizational support. Significant positive relationships between the various components of structural empowerment and perceived organizational support and role satisfaction were revealed. Few demographic variables were significantly related to structural empowerment, perceived organizational behavior or role satisfaction
Laschinger et al., 2007, Canada, Journal of Nursing Administration The impact of leader-member exchange quality, empowerment, and core self-evaluation on nurse manager's job satisfaction	The purpose of this study was to test a theoretical model linking nurse managers' perceptions of the quality of the relationship with their supervisors, and empowerment to job satisfaction, and to examine the effect of a personal dispositional variable, core self-evaluation, on the	A non-experimental predictive design with a self-administered questionnaire	CWEQ-II, Spreitzer's Psychological Empowerment Scale, Liden and Maslyn's LMX-MDM (multidimensional measure), job satisfaction subscale of the Pressure Management Indicator, Core Self-evaluation Scale (CSES) Internal consistency reliability estimates ranged from 0.62 to 0.80 for structural empowerment, 0.89 to 0.93 for psychological empowerment, 0.72 to 0.97 for	N = 141, 40 middle and 101 first-line managers working in acute care hospitals	In the model tested, leader-member exchange quality had a positive direct effect on structural empowerment, which, in turn, had a positive direct effect on psychological empowerment

	relationships among these variables		LMX-MDM, 0.56 to 0.77 for CSES, and 0.92 for job satisfaction. CWEQ-II, Spreitzer's Psychological Empowerment Scale, LMX-MDM and CSES were validated in previous studies by the authors.		

Table 3. Frameworks of empowerment in the studies reviewed

Study's author(s), year	Used framework's author(s)	Theoretical approach	Structure of empowerment	Empowerment definition	
				Not presented clearly	Presented
Laschinger and Shamian, 1994	Kanter (1977)	Organizational and management theories	Access to support Access to information Access to resources Opportunities to grow Formal power Informal power	x	
Goddard and Laschinger, 1997	Kanter (1977)	Organizational and management theories	Structure of power: formal and informal power, access to support, information, and resources Structure of opportunity (autonomy, growth, a sense of challenge, the chance to learn) Relative numbers (the social compositions of peer clusters)	x	
Jooste, 1997	Jooste (1997)	-	The organizational structures of the health care organization Participative decision-making in the empowerment of nurses Motivation and reward strategies contributing towards empowerment The role of power sharing in the empowerment of nurses Attributes that are characteristic of an empowered nurse manager The management skills and responsibilities of the nurse manager in her daily task design and management contributing to the empowerment of nurses	x	
Jooste, 2000	Jooste (1997)	-	The same as Jooste (1997)		Management empowerment is defined as the nurse leader, with her unique characteristics and managerial skills, is in interaction with her environment, which includes management structures and employees,

					especially nurses in the organization. The leader strives to use management structures by means of motivation strategies and participative decision-making to share power with nurses in the health service and to improve her own management expertise.
Kuokkanen and Leino-Kilpi, 2001	Thomas and Velthouse (1990), Spreitzer (1995)	Social psychological theories	Belief systems Assessment processes: impact, ability, meaning, and self-determination	x	
Laschinger et al., 2004	Kanter (1977), Spreitzer (1995)	Organizational and management theories, and social psychological theories	Organizational empowerment structures: access to information, support, resources needed to do the job, and opportunities to learn and grow Formal and informal power Psychological empowerment components: meaning, competence, self-determination, and impact		Psychological empowerment is a psychological response to empowered work environments and consists of four components: meaning, competence, self-determination, and impact.
Suominen et al., 2005	Irvine et al. (1999)	Social psychological theories	Verbal empowerment Behavioral empowerment Outcome empowerment		Work empowerment is defined as a process whereby the individual feels confident she can act and successfully execute a certain kind of action.
Patrick and Laschinger, 2006	Kanter (1977)	Organizational and management theories	Organizational empowerment structures: access to information, resources, support, and opportunities to learn and grow, formal and informal power	x	
Laschinger et al., 2007	Kanter (1977), Spreitzer (1995)	The same as Laschinger et al. (2004)	The same as Laschinger et al. (2004)		The same as Laschinger et al. (2004)

PUBLICATION II

Perception of work-related empowerment of nurse managers

Trus, M., Doran, D., Martinkenas, A., Asikainen, P., Suominen, T.

Journal of Research in Nursing 23(4), 317-330
doi: 10.1177/1744987117748347

jrn

Journal of Research in Nursing
2018, Vol. 23(4) 317–330

DOI: 10.1177/1744987117748347
journals.sagepub.com/home/jrn
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Perception of work-related empowerment of nurse managers

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Abstract

Purpose/Aim: The paper aims to analyse the perception of being empowered according to the self-evaluation of nurse managers, presenting it as structural and psychological empowerment.

Methods: A questionnaire-based study was conducted. The sample consisted of 193 nurse managers working in a total of seven university and general level hospitals in Lithuania. The Conditions of Work Effectiveness Questionnaire-II measuring structural empowerment and the Work Empowerment Questionnaire measuring psychological empowerment were used.

Results: The paper reveals that nurse managers experienced structural empowerment at a moderate level and were highly psychologically empowered.

Conclusions: These findings are in line with previous research. The results showed that particular background factors were related to aspects of empowerment. The findings of this research can be used to examine the structural and psychological aspects that function as barriers to feeling empowered. The results are also useful for chief nurses who are involved in the recruitment and retention of nurse managers. Further research is needed to look into the question of improving formal power issues, e.g. the rewards for innovation at work, and also

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outcome empowerment aspects that may affect changes in the way that nurse managers carry out their work.

Keywords
empowerment, hospital management, Lithuania, nurse manager, nursing

Introduction

Today's health care system faces many challenges, including organisational change and limited resources. Increased requirements and higher patient expectations have an impact on health care delivery standards, nurse competencies and the working environment (Ahmad and Oranye, 2010; Davies et al., 2011; Royer, 2011). It should be noted that leadership is a crucial component in creating empowering conditions in the workplace that serve to attract and retain employees in the organisation. Furthermore, this results in empowered, engaged and committed managers who practise in accordance with professional standards (Laschinger et al., 2009). Within the pursuit of quality care provision, empowerment is an important issue due to its influence on health care specialists and the solutions that are implemented to achieve positive organisational and patient outcomes (Casey et al., 2010; Smith et al., 2012).

The concept of nurse manager (nurse administrator, head nurse of unit) in the hospital context varies in different countries. Each employer defines the responsibilities, competencies, functions and requirements for the working content of a nurse manager role, but the main responsibility is to organise nursing care within the unit.

In this study, the term 'nurse manager' encompasses the activities and functions of the job title that are seen to be understood both nationally and internationally. In a European context, there is no statistical information on how many nurses work as nurse managers in health care organisations. However, they face many challenges, and have to meet the demands and responsibilities of their role, so it is of utmost importance to investigate how this particular group of nursing professionals manages this situation.

Concept of empowerment

The concept of empowerment is subject to different views and approaches. Difficulties in defining the concept arise due to differences in situation and time; however, researchers have successfully managed to adopt it from the social and psychological literature, and apply it to the field of nursing (Cai et al., 2011). Despite numerous studies of empowerment, nurse manager empowerment has mostly been investigated from the perspectives of structural and psychological empowerment (e.g. Bish et al., 2014; Laschinger et al., 2007; Patrick and Laschinger, 2006; Regan and Rodriguez, 2011; Suominen et al., 2005).

Structural empowerment. Kanter's (1993) well-known theory of empowerment is used to form the ground for the domain of structural empowerment. According to Kanter (1993), there are certain factors of the organisation that describe empowerment, and these include access to information, access to support, access to resources and opportunities for mobility and growth. When combined, these factors define the concept of feeling empowered. Additionally, the influences of formal and informal power facilitate access to these

empowerment structures, and the results of previous studies have tended to find that nurse managers feel only moderately empowered (Bish et al., 2014; Casey et al., 2010; Laschinger et al., 2007, 2009, 2011a, 2011b; Patrick and Laschinger, 2006; Regan and Rodriguez, 2011; Wagner et al., 2010).

Psychological empowerment. Psychological empowerment is one of the important aspects of workplace empowerment (Wagner et al., 2010). A few studies (Irvine et al., 1999; MacPhee et al., 2012) refer to the earlier work of Bandura (1997) stating that psychological empowerment is a process of gaining and having the experience of self-confidence and an ability to act successfully. Empowering work conditions also enhance the feelings of self-esteem and self-efficacy. Therefore empowerment can be understood as three dimensions that are related to each other, and which can be expressed in terms of verbal, behavioural and outcome empowerment (Irvine et al., 1999). According to previous research (Suominen et al., 2005), nurse managers perceived high levels of psychological empowerment.

Structural and psychological empowerment in relation to background factors. Several studies (e.g. Casey et al., 2010; Laschinger et al., 2009) have found interrelations between structural and psychological empowerment in nursing. Laschinger et al. (2007) also suggested that higher levels of psychological empowerment were predicted by higher levels of structural empowerment.

It should be noted that several researchers (Cai et al., 2011; Davies et al., 2011; Hauck et al., 2011; Laschinger et al., 2007, 2009, 2011a, 2011b; Leggat et al., 2010; Wagner et al., 2010; Wahlin et al., 2010) have indicated that structural empowerment and psychological empowerment have relationships with organisational and nursing issues, as well as with patient outcomes. However, a key problem with much of the literature regarding empowerment is that nurse managers' background factors have not tended to be investigated in relation to their perceptions of empowerment.

Based on the earlier literature and the results of previous studies (e.g. Bish et al., 2014; Laschinger et al., 2009; Regan and Rodriguez, 2011; Suominen et al., 2005), several research questions were determined for this research:

(1) How structurally empowered are nurse managers?
(2) How psychologically empowered do nurse managers feel?
(3) What background factors are connected to empowerment?

Methods

A systematic review by Trus et al. (2012) undertaken before this study revealed that the most common method used to collect data about nurse manager empowerment was by way of questionnaire. A range of valid and reliable instruments were found, and therefore this approach was adopted to examine Lithuanian nurse managers' work-related empowerment. The target group consisted of nurse managers working in a total of seven university and general level hospitals in Lithuania. The number of beds in each hospital varied from between 700 and 1500, depending on the hospital type.

The structure of the health care system in Lithuania is based on general principles that are common to most European countries. The supervision of the health care system is

undertaken by the Ministry of Health (Murauskiene et al., 2013). Health care services are provided to the majority of the population, and are financed by the National Health Insurance Fund that is based on compulsory insurance contributions together with transfers from the State budget. Most of the Lithuanian health care organisations are non-profit (European Commission and Economic Policy Committee, 2016; Meižis, 2013).

University and general level hospitals are state-funded and were chosen due to the high level of specialised multi-profile services they provide. The care provided in these hospitals is evidence-based, and the hospitals implement continuing education programmes and conduct scientific research. In general, Lithuanian healthcare is seen to be comprehensive and of a high quality (Murauskiene et al., 2013), and the hospitals included in this study have out-patient consultations, a wide range of treatment paths and diagnostic facilities, and nursing and rehabilitation services that are provided by highly qualified healthcare professionals.

Questionnaire

The data were collected using a questionnaire that consisted of two parts: background questions and questions measuring a manager's empowerment. The background questions used were both demographic (e.g. age, family status, education, language spoken) and work-related (e.g. unit, experience, workload, motivation for doing the work, stress at work, satisfaction with the work, skills for handling the work).

The nurse managers' work-related empowerment was measured using the Conditions of Work Effectiveness Questionnaire-II (CWEQ-II: Laschinger et al., 2001) for structural empowerment, and the Work Empowerment Questionnaire (Irvine et al., 1999) for psychological empowerment. The CWEQ-II questionnaire consisted of 19 items that measured six components of structural empowerment: access to opportunity, information, support, resources, formal and informal power. A Likert scale ranging from 1 to 5 provided a score for each item.

The Work Empowerment Questionnaire (Irvine et al., 1999) consisted of 22 items that were divided into three areas: verbal, behavioural and outcome empowerment. Nurse managers were asked to enter a number from 0 (not at all confident) to 10 (fully confident) to indicate their confidence in their ability to successfully perform each activity being examined.

Permission to use the questionnaires was obtained from the respective instrument developers. The CWEQ-II (Laschinger et al., 2001) and the Work Empowerment Questionnaire (Irvine et al., 1999) both originate from Canada. English and Lithuanian language professionals translated the instruments using the translation/back-translation technique (Burns and Grove, 2009).

A pilot study was conducted; the Cronbach's alpha values of the piloted questionnaire were 0.7 for the CWEQ-II and 0.9 for the Work Empowerment Questionnaire. Only minor linguistic changes were made. The data from the pilot study were not included in the main study.

Ethical approval

Ethical approval for the research was received from the Ethics Committee of the Klaipeda University in Lithuania. The copyright holders gave their permission to use the respective questionnaires. Permissions to collect the data were obtained from the directors/director

generals and chief nurses/directors of nursing of each hospital involved in the study. All of the study participants were informed about the purpose of the study and main methodological issues involved (e.g. data collection, completion requirements and ethical aspects) in an initial meeting prior to the data collection, and research-relevant information was provided in a cover letter. The research was voluntary and the participants had the right to decide whether to take part in the research or to withdraw at any time without explanation. No influence was exerted by the researcher during the data collection and no payment or other compensation for time was given for participation. There was also no coercion or influence from the institutions involved. Participation in the research followed the principles expressed in the World Medical Association Declaration of Helsinki (2013).

Data collection and analysis

The data were collected during a period of four months in 2012. Eleven university and general level hospitals were purposefully selected for the research, with seven from the eleven hospitals giving permission to perform the research. In each hospital, all of the nurse managers were asked to participate in the research, thus the response rate was 97%. The study data were collected during specifically organised meetings, with the researcher present in the room (in case of questions concerning completion) when the nurse managers individually completed the questionnaires. The questionnaires were returned to the researcher in sealed envelopes.

A power calculation was carried out to determine the sample size required for statistical analysis (Parahoo, 2014). The sample size was calculated with a sample power of 3 with 5% standard error and 95% confidence level, and a minimum power of 80%. The sample size achieved for the research met these requirements.

The Statistical Package for Social Sciences (SPSS 21.0 version) was used to statistically analyse the data. Descriptive statistics were used to describe the main characteristics of the data, and to summarise it numerically. The non-parametric Shapiro–Wilk test was used to assess whether the data formed a normal distribution. Spearman's correlation coefficient was used to determine the relationships between variables (Burns and Grove, 2009).

The total structural empowerment score was calculated by summing the averages for each of the six subscales, ranging from 6 to 30. Higher scores indicate a higher level of empowerment (Laschinger et al., 2001). Moreover, the sum variables of appropriate items were used to form the three main categories of the Work Empowerment Questionnaire: verbal, behavioural and outcome empowerment. Higher scores represent stronger confidence in the ability to do the job (Irvine et al. 1999).

The reliability of the questionnaire was measured using Cronbach's alpha coefficient. The coefficient alpha values were found to be acceptable (Burns and Grove, 2009), with coefficients of 0.8 for the CWEQ-II (structural empowerment) and 0.9 for the Work Empowerment Questionnaire (psychological empowerment). This is in line with previous studies that suggest the instruments to be reliable and valid (e.g. Laschinger et al., 2007; Suominen et al., 2005).

Participants

The study sample consisted of 193 nurse managers, stemming almost equally from medical (31.6%), surgical (32.1%) and other (36.3%) nursing areas. The mean age of the respondents

was 48.4 years (SD 8.9), ranging from 27 to 67 years. Participants had a mean duration of nursing experience of 27.3 years (SD 9.9). The mean experience in their current unit was 19.0 years (SD 10.7), and the mean experience in their position of nurse manager was 14.7 years (SD 10.6) (Table 1).

Almost all of the participants (94.3%) had a general practice nurse licence. Most of the nurse managers (91.2%) were Lithuanian native speakers (Table 1), but apart from their native language nurse managers could speak Russian (87.0%), Polish (23.8%), English (22.8%), German (11.4%) and French (4.7%). In comparing responses from the medical, surgical, other nursing areas, it was found that statistically nurse managers from the surgical working area could speak more languages ($p = 0.029$ compared to their medical counterparts, and $p = 0.041$ compared to other working areas). No other significant differences were found based on the demographic variables.

Half of the managers (53.9%) felt that they had good enough skills to conduct their work, and one third (31.1%) of the respondents partly agreed that they had enough staff to do the

Table 1. Background data of respondents ($n = 193$).

Background factors	Percentage (%)
Marital status:	
Married/live in partnership	75.1
Not married/live alone	7.8
Divorced/widow	16.1
Missing	1.0
Recent education:	
Medical school (special education)	43.5
College (professional bachelor's degree)	16.1
University (bachelor's degree)	26.9
University (master's degree)	13.0
Missing	0.5
Working area:	
Medical	31.6
Surgical	32.1
Other (e.g. psychiatric, paediatric, midwifery, elderly care)	36.3
Licence:	
General practice nurse	94.3
Midwifery practice nurse	5.7
Nursing specialisation ($n = 84$) (e.g. anaesthesia and intensive care nursing, surgical nursing, mental health nursing)	43.5
Native language:	
Lithuanian	91.2
Russian	5.7
Polish	3.1
Working place ($n = 187$):	
University level hospital	48.7
General level hospital	48.2
Missing	3.1

work of the unit. Nurse managers did, however, experience stress at work. Other work-related information is presented in Tables 2 and 3.

Findings

Work-related empowerment

Structural empowerment. The total structural empowerment of nurse managers was of a moderate level (21.0, SD 2.9), suggesting that there is still room for increasing the perceptions of access to empowering structures. Nurse managers generally felt that they were empowered and this was indicated with most of the subscales of the questionnaire averaging above 3. The highest evaluated area was access to opportunity (mean 4.0, SD 0.6), and the lowest evaluated area was that of formal power (2.5, SD 0.9) (Table 4).

Participants reported that their work gave them the opportunity to gain new skills and knowledge (4.3, SD 0.7). Concerning the access respondents had to information, the item about the current state of the hospital was evaluated the highest (3.9, SD 0.8). An access to support was evaluated equally to receiving information about things done well (3.5, SD 0.9), specific remarks about things that could be improved (3.4, SD 1.0), and receiving helpful hints or problem-solving advice (3.5, SD 1.0). Managers also had some access to resources,

Table 2. Work-related background variables of respondents ($n = 193$).

Answers / Background factors	Strongly agree (%)	Agree (%)	Partly agree (%)	Disagree (%)	Totally disagree (%)
Sufficiency of means to do the work as a nurse manager	14.5	42.5	34.2	7.8	1.0
Potential skills for handling the work as a nurse manager	20.7	53.9	21.8	2.6	1.0
Sufficiency of staff to do the work in working unit	14.0	24.4	31.1	25.9	4.7
Stress experienced at work	28.5	34.2	32.1	4.1	1.0
Commitment to the nursing profession	59.6	35.2	5.2	0	0
Support of research utilisation in working unit	44.0	31.6	20.2	3.6	0.5

Table 3. Other work-related background variables of respondents ($n = 193$).

Answers / Background factors	Yes (%)	Cannot say (%)	No (%)
Feelings of motivation doing the work of a nurse manager	57.0	35.8	7.3
Satisfaction with the work of a nurse manager	73.6	21.2	5.2
Importance of work autonomy	85.5	11.4	3.1
Appreciation of the work of a nurse manager by society	14.0	59.1	26.9

such as having the time necessary for completing documentation (3.7, SD 0.7), time to perform the job (3.8, SD 0.7) and gaining temporary assistance when needed (3.5, SD 1.0).

Measuring formal power, nurse managers indicated that they did not experience reward for demonstrating any work innovations (1.6, SD 1.0), but they still had a certain degree of flexibility at work (3.1, SD 1.2). As for informal power, the results were almost equal, indicating that participants were able to collaborate with physicians on issues of patient care (4.2, SD 1.0), and were sought out by colleagues (4.3, SD 0.7) and other managers (4.0, SD 1.0) to help with problems.

In accordance with their working area, from a perspective of informal power, nurse managers from the medical field evaluated most highly being sought out by colleagues to help with problems (4.4, SD 0.7), and from a perspective of formal power their lowest evaluated area was that of being rewarded for work innovations (1.5, SD 1.0). Nurse managers within the surgical working area reported that their work gave them the opportunity to gain new skills and knowledge (4.5, SD 0.7), and their lowest evaluated area was also that of being rewarded for work innovations. Similar to nurse managers working in the medical area, those from other working areas also evaluated being sought out by colleagues to help with problems the highest (4.3, SD 0.7) and being rewarded for work innovations the lowest (1.8, SD 1.1).

Psychological empowerment. Nurse managers felt quite a strong level of psychological empowerment (mean 8.3, SD 1.0), but with higher behavioural (8.7, SD 0.8) and verbal (8.7, SD 1.1) levels of empowerment than those of outcome empowerment (7.4, SD 1.6) (Table 4). With regard to behavioural empowerment, participants were most confident in doing their work well (9.3, SD 0.8) and working with co-workers in the group (9.2, SD 0.9). Nurse managers were least confident in their ability to use analytical skills for collecting data about work problems and to use when recommending solutions (7.9, SD 1.6), and also in their ability to use mathematical and statistical skills in their work (8.1, SD 1.6). Verbal empowerment showed that nurse managers were more confident in debating their opinion with co-workers (9.0, SD 1.2), and they were least confident in their ability to state their

Table 4. Work empowerment experienced by respondents ($n = 193$).

Work empowerment structures	Cronbach's alpha	Min	Max	Mean	SD	Me (25–75)	Shapiro–Wilk p[a]
Access to opportunity	0.6	2.3	5.0	4.0	0.6	4.0 (3.7–4.3)	<0.001
Access to information	0.9	1.0	5.0	3.4	0.9	3.3 (3.0–4.0)	<0.001
Access to support	0.8	1.0	5.0	3.5	0.8	3.7 (3.0–4.0)	<0.001
Access to resources	0.6	1.0	5.0	3.7	0.6	3.7 (3.3–4.0)	<0.001
Formal power	0.7	1.0	4.7	2.5	0.9	2.3 (2.0–3.3)	<0.001
Informal power	0.6	2.0	5.0	3.9	0.7	4.0 (3.5–4.5)	<0.001
Total structural empowerment	0.8	12.5	27.3	21.01	2.93	21.0 (19.3–22.8)	0.248
Behavioural empowerment	0.9	4.4	10.0	8.7	0.8	8.8 (8.2–9.3)	<0.001
Outcome empowerment	0.9	1.4	10.0	7.4	1.6	7.7 (6.6-8.6)	<0.001
Verbal empowerment	0.8	4.2	10.0	8.7	1.1	8.8 (8.0-9.6)	<0.001
Psychological empowerment	0.9	4.0	10.0	8.3	1.0	8.4 (7.7-9.1)	<0.001

[a]The p-value is less than 0.05, meaning that the data are not normally distributed.

opinion in group meetings (8.4, SD 1.6), and when stating their opinion about working problems to managers outside their own unit (8.4, SD 1.7). Regarding outcome empowerment, the results showed that nurse managers were most confident in helping co-workers to improve their work (8.8, SD 1.1), and least confident in their ability to effect changes in the way they did their work in the hospital (6.2, SD 2.9).

Nurse managers from medical, surgical and other working areas tended to report the same issues in their confidence and abilities. From a perspective of behavioural empowerment they felt most confident in doing their work well (accordingly 9.4, SD 0.7; 9.4, SD 0.8 and 9.1, SD 1.0), but they felt least confident in their ability to bring changes to the way that they did their work in the hospital (accordingly 6.6, SD 2.8; 6.1, SD 2.9 and 6.0, SD 2.9), which reflects outcome empowerment.

Several significant relations were found between structural and psychological empowerment. All of the empowering structures of structural empowerment correlated with each other (with a significance level $p \leq 0.001$) and with psychological empowerment areas ($0.001 < p \leq 0.01$), apart from the area of access to resources that had no statistical relationships with psychological empowerment and its areas. Overall, however, it could be seen that structural empowerment and psychological empowerment were statistically associated with each other with a high degree of significance ($p \leq 0.001$).

Background factor association with work-related empowerment

The results of this study showed that three particular background factors were related to aspects of empowerment. Education and languages spoken were associated with psychological empowerment and its areas ($0.001 < p \leq 0.01$), whilst the duration of working experience as a nurse manager was related to total structural empowerment ($0.01 < p \leq 0.05$). Negative correlation was found between education and access to resources, meaning that nurse managers with higher education evaluated lower access to resources (Table 5).

Table 5. Spearman's correlation between background variables and empowerment ($n = 193$).

	r (*p*)		
Variables	Education	Languages spoken	Working experience as a nurse manager
Access to opportunity	NS[a]	NS	NS
Access to information	0.143 (0.048)	NS	NS
Access to support	NS	NS	NS
Access to resources	−0.179 (0.013)	NS	NS
Formal power	NS	NS	0.145 (0.047)
Informal power	NS	NS	NS
Total structural empowerment	NS	NS	0.148 (0.043)
Behavioural empowerment	0.262 (<0.001)	0.264 (<0.001)	NS
Outcome empowerment	0.257 (<0.001)	NS	NS
Verbal empowerment	0.210 (0.003)	0.225 (0.002)	NS
Psychological empowerment	0.290 (<0.001)	0.217 (0.002)	NS

[a]The *p*-value is more than 0.05, meaning that the data are not significant.

Discussion

Notwithstanding the fact of the changing environment in which they worked, this study revealed that nurse managers felt empowered. The total structural empowerment was of a moderate level (21.0, SD 2.9), and this is in line with previous research (Bish et al., 2014; Laschinger et al., 2011b; Patrick and Laschinger, 2006; Regan and Rodriguez, 2011). The lowest evaluated issues of formal power reflect that managers did not feel that their job is visible for work-related activities, and they were unable to gain reward for innovations they implemented in the working setting. Nurse managers form a considerable group in the health care system, and should have the opportunity to make decisions concerning quality of care, patient safety and working conditions. As such, chief nurses have to find ways to promote innovative behaviour in nurse managers that will help them achieve their work-related goals.

The nurse managers reported that they had some access to information from the top management regarding the values and aims of their organisation; these results are similar to other studies which have been conducted (Bish et al., 2014; Laschinger et al., 2011b; Regan and Rodriguez, 2011). There is much to be gained when nurse managers have information concerning the goals, solutions and financial issues of their organisation. Particularly, it has been seen that interaction between chief nurses and nurse managers creates a positive work environment (Davies et al., 2011), and increases feelings of empowerment (Laschinger et al., 2011b) and role satisfaction (Laschinger et al., 2007) that result in the achievement of both the organisational mission and patient care delivery.

Psychological empowerment is understood as a feeling of self-efficacy and belief in the ability to perform work-related activities (Bandura, 1997). The nurse managers of this study perceived high levels of psychological empowerment (8.3, SD 1.0), and again, this was similar to the evidence presented in previous studies (Suominen et al., 2005). The findings of the present study support the findings of Suominen et al. (2005) showing that nurse managers experience more verbal and behavioural areas of empowerment than outcome empowerment, and similarities were found between this and the present study. Concerning verbal empowerment, the results showed the same confidence in being able to debate opinion with co-workers, and a lack of confidence in their ability to state opinions about working problems to managers from outside their unit. The role of the nurse manager has changed from the coordination of the everyday activities of the unit and having a responsibility for patients, to include having a direct involvement in the overall functioning of services and the wider management of the unit. Nurse managers should have competencies and skills in collaboration and team building (Huston, 2008) that will help to assure organisational success, the achievement of desired goals, and the productivity of the organisation.

In this study (see also Suominen et al., 2005), behavioural empowerment showed that nurse managers felt confident working with co-workers in a group, but not in using mathematical and statistical skills in their work. Nurse managers are accountable for the nursing budget, and managing resources and staffing (Hughes et al., 2015), all of which require mathematical and statistical skills. Thus, new strategies of learning should be developed to improve and promote the development and utilisation of these skills in nurse managers.

The lowest levels of confidence were expressed in the area of outcome empowerment. Nurse managers felt that they could not make changes to the way they did their work in the

hospital, even though organisational change is vital, because it has a direct effect on staff and is an integral part of contemporary health care systems. The amount of organisational change has increased and presents significant challenges to nurse managers (Hewison, 2012). Thus, nurse managers should be provided with administrative support during organisational transformations, and also be involved in the planning of organisational changes. In addition, considerable attention must be paid to the fact that more educated nurse managers evaluated lower access to resources. It is probable that they had competence to do more but not resources for that.

Limitations

There are some limitations to this study that should be noted. Firstly, the generalisability of the findings may be limited due to the relatively small sample of nurse managers and the small number of hospitals that were included (Parahoo, 2014). However, nurse managers from seven of the eleven hospitals approached at the time of the research participated in the study, and the results may be seen to represent the national view. The questionnaire for nurse managers was used for the first time in a Lithuanian context, thus pilot tested. To deepen the research, further studies with nurse managers from primary health care institutions would be beneficial for providing additional information about the topic, both from national and international perspectives. Also, the research could be repeated in the same setting and with the same sample to observe any possible changes that might occur.

Despite presented limitations, there are some positive aspects that should be mentioned. The research highlights that nurse managers have important managerial obligations and responsibilities. In order to carry out these responsibilities, the research presents valuable information on the areas to be taken into consideration for strengthening nurse managers' levels of empowerment. Given that there is a dearth of literature that addresses this topic, this study offers a contribution towards enhancing nurse managers' understanding of empowerment, and presents a platform which may be used to direct future enquiries. Further, the original instrument has been found to be reliable and valid in previous studies, and this was also the case in this research.

Conclusion

Nurse managers were structurally empowered at a moderate level, and experienced a higher level of psychological empowerment. When taken together, structural and psychological empowerment could be seen as a powerful approach that creates a work environment in organisations that supports nurse managers, expands their role, and contributes to their development. Chief nurses have to take every effort to increase levels of empowerment in order to retain nurse managers in their positions.

Further research is needed to look into the question of improving formal power issues, e.g. the rewards for innovation at work, and also outcome empowerment aspects that may affect changes in the way that nurse managers carry out their work. From an administrative perspective, one direction for future research would be to analyse what behaviours of chief nurses increase the feelings of empowerment in the nurse managers they lead.

Key points for policy, practice and/or research

- This research offers a contribution towards enhancing nurse managers' understanding of empowerment, and presents the areas of empowerment that need to be strengthened.
- Nurse managers experienced structural empowerment at a moderate level and were highly psychologically empowered.
- The instruments used in this study were back-translated and piloted, and were considered to be valid and reliable when used in another cultural context.
- The research provides information for chief nurses for optimising nurse managers' work and retaining them in their positions.
- Further studies in the same setting and with the same sample could be conducted for providing longitudinal information about nurse managers' empowerment.

Acknowledgements

The authors would like to thank the University of Tampere (Finland), the Finnish Nurses' Education Foundation, the Finnish Cultural Foundation and the Pirkanmaa Hospital District for their financial support of this study. The authors would also like to thank the nurse managers who took part in the research.

Declaration of conflicting interests

The author(s) declare that there is no conflict of interest. The authors assume sole responsibility for the content and writing of this paper.

Ethics

Ethical approval for the research was received from the Ethics Committee of the Klaipeda University in Lithuania.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

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PUBLICATION III

International nursing: How much power do nurse managers have?

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Nursing Administration Quarterly 41(4), 337-345
doi: 10.1097/NAQ.0000000000000247

Nurs Admin Q
Vol. 41, No. 4, pp. 337–345

International Nursing: How Much Power Do Nurse Managers Have?

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This study was conducted to explore issues of nurse managers' power and empowerment. Data were collected from nurse managers by way of a questionnaire consisting of background factors, work-related questions, and power-related questions at the unit and organization levels. The degree of empowerment was evaluated using 2 established instruments (CWEQ-II and Work Empowerment Questionnaire). The overall level of managers' personal power within their own units was relatively high. Nurse managers' perception of their power at an organizational level was found to be at a moderate level. Several factors related to an individual's professional background were correlated to power issues, both at the unit and organizational levels. Structural and psychological empowerment correlated with the overall level of power at a unit level and the overall level of power at an organizational level. Nurse managers self-reported their own general power at a unit level as high, which offers them possibilities to lead the development of nursing care in their units. Organizations may benefit more from nurse managers' leadership by more fully integrating them in the development processes of the entire organization. **Key words:** *empowerment, nurse manager, power*

MODERN HEALTH care has many challenges, including reduced levels of staffing, limited resources, and ongoing organizational changes. Nurse managers are those who tend to deal with the problems that arise, and they are expected to perform managerial tasks and duties.[1,2] It is important for nurse managers to have authority and be empowered to fulfill a successful leadership role and ensure efficient patient care. In addition, they are required to be powerful while leading their units through changes in the health care system and developing new policy.[3,4] To achieve both personal and professional goals, managers need to have appropriate and sufficient power.[1]

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The authors declare no conflict of interest.

The authors thank the University of Tampere (Finland) for the financial support of this study. Also, this research has partly been funded by the Competitive State Research Financing of the Expert Responsibility area of Tampere University Hospital (grant 9S065). The authors also thank the nurse managers who took part in the research.

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DOI: 10.1097/NAQ.0000000000000247

POWER IN NURSING

The concept of nursing power is very broad, relating not only to nursing practice but also to health care organizations and policy. It can be defined as "power to," which describes both efficiency and the ability to act independently to achieve goals. It is also "power over," which is the ability or the capacity to influence others due to one's own competence and experience in a given area.

This latter expression is also known as expert power.[4-9]

Power is used in both professional organizations and the media to influence the evolution of patient care and health care systems in a positive way.[4] Increasing nurses' knowledge about power is important due to its critical role in unit functioning and goal achievement.[7] Furthermore, within a given organization and practice, each nurse's actions and behaviors can either increase or decrease the collective power of the profession of nursing.[8]

Power and empowerment

Power and its exercise are combined in the concept of empowerment but are not its only result. Employees have individual capacities for gaining knowledge and acting in an appropriate way and cannot be empowered solely through delegation from others.[10] Several researchers[2,11] refer to the work of Kanter,[12] which states that power is the ability to organize resources and achieve goals. These researchers link this ability to structural empowerment.

An individual's behavior, actions, and relationships with others can create personal power. Power is also established through expertise in patient care, management, or teaching and research. Its exercise is possible due to personal status; skills and knowledge; actions; and gained information. In total, empowerment can be simply understood as the gaining of power, and nurse managers who feel empowered (for whatever reason) are capable of doing things well. They are also more likely to demonstrate a high level of self-confidence.[1,10,13]

In recent years, there has been considerable interest in the topic of nurse managers' power.[2,7,9,14-17] Previous studies[2,17] have revealed that nurse managers perceive their individual unit power on a moderate to high level, but they lack organizational power commensurate with their role responsibilities.

This article offers a new look at nurse managers' power issues in connection with empowerment. The power concept in this study was interpreted as being the ability of nurse managers to mobilize their resources in order to perform unit- and organization-related tasks.

METHODOLOGY

The aim of this study was to explore nurse managers' power issues and empowerment. The hospitals included in the study were university- and general-level hospitals (700-1500 beds), similar in the services they provided. Eleven hospitals were invited to participate in the study, of which 7 gave permission to perform the research. The sampling was nonrepresentative, with a total of 193 nurse managers participating by providing data through written questionnaires.

Instrument

The self-administrated questionnaire included 97 questions. These included

- demographic (age, gender, level of education) and work-related questions (experience, workload, stress at work, work motivation);
- power-related questions concerning individual power at a unit level (power to determine goals, lead nursing practice, improve working environment, make decisions);
- Manager's Activity Scale (MAS),[18] which measures individual power on an organizational level;
- empowerment questions regarding structural empowerment (Conditions of Work Effectiveness Questionnaire-II (CWEQ-II);[19] and
- psychological empowerment (Work Empowerment Questionnaire).[20]

The questions concerning unit-level power were created by the researcher, including 2 items that evaluated the general power and responsibility of the nurse manager. Together with the MAS, they were used to assess the nurse managers' perception of their own power. The development of the CWEQ-II[18] was based on Kanter's theory and included

6 empowering structures[12,21]: access to information, support, resources needed to do the job, opportunities to learn and grow, formal power, and informal power.

Bandura's perspective of the psychological empowerment process was used as a framework for creating the Work Empowerment Questionnaire.[20] Empowerment can be understood as a process in which a person feels confident and competent to perform particular actions. This can be represented as 3 interdependent concepts: verbal, behavioral, and outcome empowerment.[22]

The questionnaires were used in a Lithuanian context. Permission to use the CWEQ-II, MAS, and Work Empowerment Questionnaire was given by their respective authors. These tools, which originated in Canada, were translated from English into Lithuanian, using the translation/back-translation technique in accordance with all required procedures.[23] The questionnaire was tested through a pilot study of 21 nurse managers in 1 hospital (n = 21) prior to use in this study. The Cronbach α coefficient for the main measures was considered to be acceptable and good (0.71-0.94). The results of the pilot study are not included in the data of the main study.

Data collection and analysis

The data collection was carried out in May to October 2012 in Lithuania. Information about the study was presented in a primary meeting of nurse managers. All nurse managers who were present and working in the selected hospitals during the research period were included in the survey. Their response rate was 97%. Managers were informed about the study and provided with written information in the form of a cover letter that accompanied the questionnaire.

Participants were asked to indicate their level of agreement of each statement in a Likert Scale or indicate their confidence in own ability to perform the task on the scale from 0 (not at all confident) to 10 (fully confident) near each item. The sum variable of the items was applied and the average score was obtained (Table 1). A higher average score for power items (unit-level power) denotes a higher exercise of power. Higher scores for MAS (organizational-level power) indicate an increased perceived ability of the nurse manager to organize resources for performing the tasks in the organization and are, therefore, associated with a more powerful nurse manager.[18] Higher scores of the CWEQ-II (structural empowerment) indicate a higher level of empowerment.[13] Higher scores of the Work Empowerment Questionnaire (psychological empowerment) represent a stronger confidence in the nurse manager's ability to do his or her job.[20]

In addition, 2 items require respondents to indicate the general responsibilities and general power of nurse managers in their administrative position (on a scale from 0 [none] to 10 [a lot]).

The Statistical Package for Social Sciences (SPSS 21.0 version) and Microsoft Excel (for Windows XP 2010) were used to analyze the data obtained from the study. The level of statistical significance was set at $P > .05$ (not significant); $0.01 < P \leq .05$ (almost significant); $0.001 < P \leq .01$ (significant); and $P \leq .001$ (highly significant).[23]

Table 1. Scoring of the Questionnaire

Instrument	Minimum	Maximum	Overall Score
Power (10 items)	0	10	0-10
Manager's Activity Scale (11 items)	1	5	1-5
CWEQ-II (19 items)	1	5	6-30
Work Empowerment Questionnaire (22 items)	0	10	0-10

Abbreviation: CWEQ-II, Conditions of Work Effectiveness Questionnaire-II.

Ethical considerations

Permission to use and adapt the questionnaires was granted by the instrument developers. Ethical approval for the study was received from the Ethical Committee of Klaipeda University (Lithuania). The research process corresponds with the main ethical principles contained in the World Medical Association Declaration of Helsinki[24] and in accordance with the basic principles of nursing research.[25]

RESULTS

Sample

The sample consisted of 193 nurse managers, all of whom were female. Most of the nurse managers worked in medical (31.6%) and surgical (32.1%) nursing, with others (36.3%) representing different nursing areas (mental health, elderly care, pediatrics, midwifery, outpatient care). The mean age was 48.4 (SD = 8.9, range: 27-67) years. The nurse managers' average duration of experience in an administrative position was 14.7 years (SD = 10.6), and in nursing, 27.3 years (SD = 9.9).

Most of the participants had gained their nursing education in medical schools (43.5%) and universities (39.9%), with some gaining their nursing qualification in college (16.1%). The average number of nursing personnel in the nurse manager's unit was 17.6 (SD = 13.7), and the average number of beds was 32.7 (SD = 31.8). Most of the nurse managers (75.6%) indicated that they are subordinate to the head of the unit (the unit physician).

A large proportion of respondents felt that they have sufficient facilities to perform their work (42.5%). More than a half (53.9%) indicated that they have the skills to do their work well. A quarter of the nurse managers agreed (24.4%) that there are enough staff members on their units to do the work. However, most of the participants expressed that they feel stress at work (strongly agree: 28.5%; agree: 34.2%).

The greater part of participants (59.6%) were strongly committed to the nursing profession and felt motivated when working as a nurse manager (57.0%). Job autonomy was important for nurse managers (85.5%), and most were satisfied with their work (73.6%).

Nurse managers' power and background factors

The nurse managers' self-reported general power at the unit level was high (7.1, SD = 1.7). Their evaluation of general responsibilities was also very high at the unit level (9.1, SD = 1.2), meaning that nurse managers had considerable capacity for action in the administrative position of managing their units.

The overall level of the managers' power on their own units was rather high (7.6, SD = 1.3), with the highest indicated power relating to leading nursing practice in the unit (8.7, SD = 1.3). Other power issues, such as power to improve nursing practice and to assist nursing staff to improve nursing practice in their unit, were also found to be at a high level (8.2, SD = 1.7 and 8.3, SD =1.4, accordingly). A lower level of power was indicated regarding the making of decisions about the unit (6.7, SD = 2.1). The lowest evaluation was for the power to facilitate research action among the nursing staff (6.1, SD = 3.0) (Table 2).

The nurse managers' perception of their own power (MAS) at an organization level was moderate (2.7, SD = 0.8). This meant that they did not have much ability to organize the resources required for accomplishing tasks in the organization. The results show that the highest indicated ability of nurse managers relates to interceding for someone in trouble (3.8, SD = 0.9), followed by their ability to obtain timely information about solutions and changes in work policy (3.4, SD = 1.0). Of particular note was that nurse managers did not feel that they were able to obtain higher than average pay raises for deserving subordinates (1.7, SD = 1.0). They also felt that they were not able to innovate without going through a multilevel approval process (2.0, SD = 1.1).

Furthermore, it was found that nurse managers working in surgical areas evaluate their general power higher (7.5, SD = 1.8) than

Table 2. Nurse Managers' Evaluation of Their Own Power at the Unit Level (n = 193)

Power Items	Minimum	Maximum	Mean	SD	Median (25-75)
Power to:					
lead nursing practice in my unit	0	10	8.7	1.3	9.0 (8.0-10.0)
assist my nursing staff to improve nursing practice in the unit	3	10	8.3	1.4	8.0 (8.0-9.0)
improve nursing practice in my unit	0	10	8.2	1.7	8.0 (8.0-9.0)
facilitate educational actions of my nursing staff	0	10	8.1	1.8	8.0 (8.0-9.0)
facilitate the actions of my nursing staff to achieve the goals of the unit	0	10	8.0	2.0	8.0 (7.0-9.0)
determine the goals of my unit	0	10	7.7	2.0	8.0 (7.0-9.0)
achieve the goals of my unit	1	10	7.5	1.8	8.0 (7.0-9.0)
improve working environment in my unit	0	10	7.2	2.0	8.0 (6.0-9.0)
make decisions about my unit	0	10	6.7	2.1	7.0 (5.0-8.0)
facilitate research actions of my nursing staff	0	10	6.1	3.0	7.0 (4.5-8.0)
Overall level of power at the unit level[a]	2.0	10.0	7.6	1.3	7.8 (6.9-8.6)

[a]Shapiro Wilk *P* value is <.05, meaning that the data are not normally distributed.

nurse managers from medical (6.9, SD = 1.8) and other (6.9, SD = 1.5) patient care areas ($P < .05$).

The results of this study show that several background factors are related to power issues at both the unit and organization levels. In particular, the overall power at the unit level correlated with the respondent's working experience in a nurse manager position. Furthermore, as shown through a detailed analysis of unit-level power, some items are clearly connected to age, professional experience in nursing, working experience in the current unit, working experience in a nurse manager position, and languages spoken ($P \leq .05$) (Table 3).

The overall level of individual power within the organization (as measured by the MAS) was associated with the number of languages spoken ($P = .016$). It emerged that a negative correlation was found between age ($r = -0.175$, $P = .016$), professional experience in nursing ($r = -0.151$, $P = .038$), working experience in the current unit ($r = -0.013$, $P = .013$), and the managers' organization-level power, especially when proposing or attempting innovative or risky activities without going through multilevel approval process. This finding means that older nurse managers, with more professional nursing experience and working experience in the current unit, indicate that they have a lower ability to initiate innovative change without going through a multilevel approval process. Furthermore, the significant correlation was found between age ($P = .004$), professional experience in nursing ($P = .002$), working experience in the current unit ($P = .011$), working experience as a nurse manager ($P = .002$), and concerned interceding for someone in organization who is in trouble, meaning that older and more experienced nurse managers were more likely to intercede on behalf of someone in trouble in the organization. In addition, the number of languages spoken correlated positively with the following items: obtaining a desirable work place ($P = .020$); higher than average pay rises ($P = .014$) for subordinates; and ability to make innovative change without going through the multi-level approval process ($P = .016$).

Nurse managers with a master's degree evaluated their organization power higher (3.2, SD = 0.7) than nurse managers with less education ($P < .05$). Nurse managers from surgical areas indicated a higher perception

Table 3. Spearmans Correlation Between Power at the Unit Level and Background Variables (n = 193)

	r (*P* value)				
Variables	**Age**	**Professional Experience in Nursing**	**Working Experience in Present Unit**	**Working Experience as a Nurse Manager**	**Number of Languages Spoken**
Power to determine the goals of my unit	ns	ns	ns	0.163 (.026)	ns
Power to achieve the goals of my unit	ns	ns	ns	0.148 (.043)	ns
Power to facilitate the actions of my nursing staff to achieve the goals of the unit	ns	ns	ns	ns	ns
Power to lead nursing practice in my unit	ns	ns	ns	0.149 (.042)	ns
Power to improve nursing practice in my unit	ns	ns	ns	ns	ns
Power to assist my nursing staff to improve nursing practice in the unit	ns	ns	0.160 (.027)	ns	ns
Power to improve working environment in my unit	ns	ns	ns	ns	ns
Power to make decisions about my unit	ns	ns	ns	ns	ns
Power to facilitate educational actions of my nursing staff	0.203 (.005)	0.262 (.000)	ns	0.203 (.005)	ns
Power to facilitate research actions of my nursing staff	ns	ns	ns	ns	0.148 (.040)
Overall level of power at the unit level	ns	ns	ns	0.162 (.026)	ns

Abbreviation: ns: the *P* value is >.05, meaning that the data are not statistically significant.

of power than those working in medical and other areas at both the unit and organization levels.

Connections between nurse managers' power and empowerment

Several significant findings were made relating to nurse managers' power and empowerment. All empowering structures (access to information, support, resources, opportunities, formal and informal power) and all areas (verbal, behavioral, and outcome) of psychological empowerment correlated positively to the overall level of power at both the unit and organizational levels. (Most of these correlated at a highly significant level of $P \leq .001$.) In addition, there was a statistically significant association between unit-level power and organizational-level power ($P \leq .001$).

DISCUSSION

The results of this study share similarities with findings of other research[17] that has reported that nurse managers experience power at the unit level from a moderate level to high level. The present study also provides support for the previous finding[14] that nurse managers support staff nurses by facilitating their activities by providing means, education, information, and rewards.

Nurse managers' perceptions of their own power at an organization level were not previously investigated from the viewpoint of nurse managers themselves. However, the MAS has been used to measure staff nurse perceptions of power in an organization.[16] Staff nurses reported that their nurse managers had abilities to mobilize resources for achieving organizational goals. The present study provides insight from the managers about their power at the unit and organization levels.

This study confirms earlier research findings regarding organization-level power.[2] Nurse managers in the present research perceive their organizational power at only a moderate level. In previous research,[2] it was found that nurse managers experience a limited access to organizational power, which makes it difficult for them to function as managers. According to earlier findings,[17] when nurse managers do not have enough power, they are not able to develop nursing practice or ensure that their units achieve organizational goals.

Findings from the current study indicate significant correlation between power at a unit and organization level, and both structural and psychological empowerment. (In previous research,[16] the MAS was strongly related to the scale of empowerment [CWEQ] [$r = 0.64$, $P < .01$], suggesting that nursing leadership and structural empowerment share a strong, direct relationship. However, the evaluation was made from a nursing staff perspective and not that of nurse managers themselves.)

LIMITATIONS

It is possible that a number of limitations could have influenced the results obtained. The sample size was relatively small, representing 7 of the 11 university and general hospitals in Lithuania. Caution must be taken when generalizing these findings. Only females responded to the study invitation, so the absence of male perspectives is notable. However, in Lithuania, the nursing profession is considered to be a female profession. Therefore, the female bias is reflected in those engaged in the profession and subsequently reflected in the sample who participated in the research. In other words, comprehensive results were obtained that fairly reflect the context of the country. A third limitation could reflect the linguistic character and cultural diversity covered by the study. However, the instruments were translated into Lithuanian using translation/back-translation method and were piloted prior to the main study. The original instruments have been considered valid and reliable in previous research, as were the adapted variants used in this study. In addition, the items measuring unit-level power developed for this study were also found to be valid and reliable. A fourth limitation is related to the length of the questionnaire, which consisted of 97 items. Although there was

some missing information in the completed questionnaires, this did not exceed 5% and is not envisaged as detracting from the reliability of the results given here.[25] Despite these limitations, this research has strength in that it reflects the perceptions of nurse manager power at a national level.

CONCLUSIONS

The nurse managers self-reported their power at a unit level as high. This allows them to lead the development of nursing care on their units. Nurse managers with power may have better opportunities to support their staff in achieving higher nursing standards. Organizations may gain more benefit from frontline leaders if they are better integrated with the development processes of the whole organization. This study shows that the participating nurse managers do not yet have much power at an organizational level.

The length of working experience as a nurse manager seems to be an important issue, because it was clearly associated with nurse managers' power at a unit level. This underscores the importance of chief nurses supporting unit-level managers with shorter working experience. This will help the new managers thrive while they gain power that comes with experience in their positions.

The relationships between some power issues and empowerment were found to be statistically significant, so these 2 dimensions should be looked at as being interdependent. The results of this study point to potential areas for chief nursing officers to help frontline leaders gain power. Future studies are recommended on aspects of nurse managers' power, such as their involvement in decision-making and improvements in the unit working environment. Patients and nurses will thrive when nursing managers have, and use, appropriate power in their behalf.

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PUBLICATION IV

Connection between organizational culture and climate and empowerment: a perspective of nurse managers

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Nursing and Health Sciences 21(1), 54-62
doi: 10.1111/nhs.12549