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Exploring the Relationships Among New Graduate Nurses' Structural Empowerment, Psychological Empowerment, Work Engagement, and Clinical Nurse Educator Leadership in Acute Care Settings

Carly Blair, *The University of Western Ontario*

Supervisor: Dr. Yolanda Babenko-Mould, *The University of Western Ontario*
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ABSTRACT

Background: This study aimed to examine relationships and to gain further knowledge into the significance of the leadership role of acute care clinical nurse educators and the relationship with structural empowerment, psychological empowerment, and work engagement amongst new graduate nurses working in acute care settings.

Methods: 83 participants, registered with the College of Nurses of Ontario (CNO), responded to a mail-out survey package containing four instruments corresponding to each study variable, along with a demographic questionnaire. The analysis includes study descriptives, correlations of total and subscales, and moderation analysis of structural empowerment, psychological empowerment and clinical nurse educator leadership

Results: A moderate level of structural empowerment, psychological empowerment, clinical nurse educator leadership, and work engagement among new graduate nurses was found within the study. Positive correlations were found among all main study variables. Findings showed that clinical nurse educator leadership did not moderate the relationship between structural and psychological empowerment.

Conclusions: Results show the importance of clinical nurse educator leadership as it is related to new graduate nurses' structural empowerment, psychological empowerment, and work engagement in the acute care setting.

[Keywords: New graduate nurses; structural empowerment; psychological empowerment; clinical nurse educator leadership; work engagement]

SUMMARY FOR LAY AUDIENCE

This study aimed to examine relationships and to gain further knowledge into the significance of the leadership role of acute care clinical nurse educators and the relationship with new graduate nurses empowerment (structural empowerment and psychological empowerment) and work engagement in acute care settings. Researchers also investigated whether the role of the clinical nurse educator as a leader influenced the variable of structural empowerment (organizational empowering conditions including access to opportunities, resources, supports, and information) to ultimately increase new graduate nurses' psychological empowerment (perceived meaning, competence, self-determination, and impact in an organization). A total of 200 randomly sampled participants were recruited through the College of Nurses of Ontario (CNO) regulatory body based on specific criteria. A total of 83 new graduate nurses responded and completed a mail-out survey package containing four instruments that addressed items related to their own perceived empowerment and work engagement in the acute care workplace, and their perceptions of their clinical nurse educators as leaders. A demographic questionnaire was also included. The study analyzed each study variable independently and its relation to the other main study variables. Study findings demonstrated that new graduate nurses reported moderate levels of empowerment, work engagement, and clinical nurse educator leadership, Findings showed that clinical nurse educator leadership did not influence the relationship between structural and psychological empowerment. Results did however demonstrate the importance of clinical nurse educator leadership as it is related to new graduate nurses' structural empowerment, psychological empowerment, and work engagement in the acute care setting.

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CHAPTER ONE

Introduction

New graduate nurses often experience greater anxiety in their transition to acute

care settings, as they are expected to manage higher acuity patients and assume greater

responsibilities, while also lacking the necessary supports to feel empowered in their

practice settings (Doelling, Levesque, & Clifford, 2010; Laschinger, Finegan, Shamian,

& Wilk, 2001). This lack of empowerment leads to absenteeism and attrition from the

practice setting and even the profession of nursing (Ishihara, Ishibashi, Takahashi, &

Nakashima, 2014; Laschinger, Finegan, Shamian, & Wilk, 2001). Acute care

organizations need to improve new graduate nurses' sense of empowerment by providing

them with the necessary resources, access to information, supports, and opportunities to

learn and grow, as they are a particularly vulnerable group and require additional

opportunities to develop both competence and confidence in their ability to practice

independently (Stewart, McNulty, Quinn, Griffin, & Fitzpatrick, 2010; Stam Laschinger,

Regan & Wong, 2013). Nurse leaders have the opportunity to impact the empowerment

of new graduate nurses, and there is a growing emphasis on engaging all levels of nursing

leadership to foster new graduate nurse empowerment (Glodoski, 2007). Nurse leaders

are those individuals who establish trusting relationships with other nurses, provide

nurses with education and resources, enable nurses to recognize their own strengths,

abilities, and personal power, and nurture nurse autonomy. They also have the

opportunity to impact the empowerment of new graduate nurses by facing the challenge

of building cultures and systems to facilitate empowerment of nursing staff (Glodoski,

2007; Sayers et al., 2015). Clinical nurse educators are well situated in acute care

organizations to foster new graduate nurse empowerment and can play a vital leadership

role as clinical experts, role models, mentors, change agents, and supporters of quality

projects (Glodoski, 2007; Romyn, Linton, Giblin, Hendrickson, Limacher, Murray, &

Zimmel, 2009, Sayers et al., 2015).

Background

New graduate nurses are particularly susceptible to disempowering experiences

(Cho et al., 2006) and Griffin (2005) reports that 60% of new graduate nurses leave their

first position within 6 months, and 20% leaving the profession forever. In an age where

there is a pending influx of older individuals who will heavily rely on the healthcare

system, and an aging nursing workforce nearing retirement, it is critical to understand

how to empower and engage future nurses to prevent future workplace and professional

attrition.

New graduate nurses who are structurally empowered to provide care according

to professional nursing standards, experience greater job satisfaction, confidence, and

competence related to their work (Sabiston & Laschinger, 1995). Kanter (1977)

maintains those work environments that promote higher levels of structural

empowerment and provide access to information, resources, support, and the opportunity

to learn and develop are empowering and improve the psychological empowerment of its

employees. Cho et al. (2006) suggests that in the new graduate nursing population, of

those with less than two years of nursing experience, organizations with higher levels of

structural empowerment lead to increased work engagement of their new graduate nurses.

Spreitzer (1995) further recognizes that psychological empowerment is promoted through

strategies and techniques that strengthen self-determination and self-efficacy. Spreitzer

(1995) also maintains that an environment that has a solid foundation of the structural and

psychological core concepts alone does not necessarily promote an empowered staff. It is

important that the new graduate nurse is engaged and understands that their work has impact and meaning (DiNapoli et al., 2016).

Within acute care hospital settings, clinical nurse educators are in a unique position where they can positively impact new graduate nurses' psychological empowerment, and engagement in their work, as these educators take the lead in facilitating professional development of staff nurses through education and create change through implementation of evidence-based knowledge translation strategies to support nurses' abilities to provide up-to-date, quality care. Although the specific roles, job description, and titles may vary across organizations, the overall encompassing and foundational goal of the clinical nurse educator in acute care is rooted in the provision of education to nurses. Clinical nurse educators are often the 'go-to' individuals that new graduate nurses seek out for information and guidance. Clinical nurse educators focus on establishing trusting relationships with other nurses, providing nurses with education and resources, enabling nurses to recognize their own strengths, abilities, and personal power, and nurture nurse autonomy. These actions along with leadership qualities such as role-modeling, mentorship, supporting organizational and unit-based quality projects enable the clinical nurse educator to foster new graduate nurse empowerment within the acute care organization (Glodoski, 2007; Romyn et al., 2009, Sayers et al., 2015).

In large urban acute care facilities, clinical nurse educators demonstrate leadership through the provision of education and opportunities to further knowledge development (Romyn et al., 2009) in order to foster the empowering work environment suggested by Kanter (1977). Furthermore, as far as it is known the effect of clinical nurse educator leadership on new graduate nurses' work engagement has not been studied, thus creating a gap in the literature.

Theoretical Framework

Concepts from the theory of Structural Empowerment developed by Kanter (1977), Psychological Empowerment developed by Spreitzer (1995), Leader-Manager Exchange theory as developed by Graen and Uhl-Bien (1995), and theoretical analysis of work engagement as conceptualized by Schaufeli and Bakker (2003).

Structural Empowerment

Kanter (1977) describes structural empowerment as structural conditions in the workplace that enable employees to accomplish their work in meaningful ways, such as through access to information, support, resources and opportunities (Kanter, 1977). *Opportunity* refers to growth, mobility, and the chance to increase knowledge and skills. *Access to resources* refers to the ability to acquire necessary materials, supplies, money, and personnel needed to meet organizational goals. *Information* refers to the data, technical knowledge, and expertise required to perform one's job. *Support* refers to guidance and feedback received from subordinates, peers, and supervisors to enhance effectiveness (Kanter, 1997).

Psychological Empowerment

In Kanter's Expanded Model, psychological empowerment is the psychological state that employees must experience for empowerment interventions to be successful (Spreitzer, 1995; Laschinger et al., 2001). The four components of psychological empowerment are meaning, competence, self-determination, and impact. *Meaning* is the congruence between job requirements and an employee's beliefs, values, and behaviours. *Competence* is confidence in one's job performance abilities. *Self-determination* is the feeling of control over one's work. *Impact* is a sense of being able to influence important outcomes within the organization (Spreitzer, 1995; Laschinger et al., 2001). The addition

of psychological empowerment to Kanter's Expanded Model (Laschinger et al., 2001) as an outcome of structural empowerment provides an understanding of the intervening mechanisms between structural work conditions and important organizational outcomes.

Leader-Member Exchange

Leadership is a key factor in creating empowering conditions in the workplace (Kirkman & Rosen, 1999). The quality of relationships between managers and workers, particularly at the unit level, where there are greater opportunities for interaction, influences both employee outcomes and unit performance (Gertsner & Day, 1997; Graen, Novak, & Sommercamp, 1982; O'Driscoll & Beehr, 1994). The Leader-Manager Exhange (LMX) theory is a useful model that the researcher intends to adapt and use to examine the concept of clinical nurse educator leadership, and will help to examine the effects of relationships between clinical nurse educators as leaders and new graduate nurses in acute care organizations (Graen & Uhl Bien, 1995). The LMX relationship quality consists of four dimensions: *contribution* (performing work beyond minimal expectations), *affect* (friendship and liking), *loyalty*, and *professional respect* for one's capabilities.

Work Engagement

Schaufeli and Bakker's (2001) theoretical analysis of work engagement will also be used to examine the concept of work engagement, and is most often defined as a positive, fulfilling, work-related state of mind characterized by vigor, dedications, and absorption" (Schaufeli, Bakker, & Salanova, 2006). *Vigor* is described as high levels of energy, mental resilience, willingness to invest effort in one's work, and persistence despite difficulties (Schaufeli et al., 2006). *Dedication* refers to being strongly involved in one's work and experiencing a sense of significance, enthusiasm, inspiration, pride,

and challenge (Schaufeli et al., 2006). Finally, *absorption* is characterized by being fully concentrated and happily engrossed in one's work, whereby time passes quickly and one has difficulties with detaching oneself from work (Schaufeli et al., 2006).

Purpose and Significance

The purpose of this study was to examine relationships and to gain further knowledge into the significance of the leadership role of acute care clinical nurse educators and the relationship with structural empowerment, psychological empowerment, and work engagement amongst new graduate nurses working in acute care settings. New graduate nurses who are structurally empowered to provide care according to professional nursing standards, experience greater job satisfaction, confidence, and competence related to their work (Sabiston & Laschinger, 1995). Kanter (1977) maintains those work environments that promote higher levels of structural empowerment and provide access to information, resources, support, and the opportunity to learn and develop are empowering and improve the psychological empowerment of its employees. Cho et al. (2006) suggests that in the new graduate nursing population, of those with less than two years of nursing experience, organizations with higher levels of structural empowerment lead to increased work engagement of their new graduate nurses. Spreitzer (1995) further recognizes that psychological empowerment is promoted through strategies and techniques that strengthen self-determination and self-efficacy. In large urban acute care facilities, clinical nurse educators demonstrate leadership through the provision of education and opportunities to further knowledge development (Romyn et al., 2009) in order to foster the empowering work environment suggested by Kanter (1977). No known theoretically-based research has been found that examines how acute care clinical nurse educator leadership relates to new graduate nurses' psychological

empowerment and work engagement in acute care settings. The aim of this study is to examine the relationships among structural empowerment, psychological empowerment, clinical nurse educator leadership, and its impact on work engagement of new graduate nurses in acute care settings, and to additionally gain further knowledge into the significance of the leadership role of the acute care nurse educator.

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CHAPTER TWO

MANUSCRIPT

Introduction

New graduate nurses are a vulnerable nursing population at risk of feeling

disempowered in the acute care setting due to population growth, higher patient acuity,

the need to assume greater responsibilities, and a lack of empowering supports in the

practice setting (Doelling, Levesque, & Clifford, 2010; Laschinger, Finegan, Shamian, &

Wilk, 2001), ultimately leading to increased attrition from the clinical setting and the

profession altogether (Laschinger, Finegan, Shamian, & Wilk, 2001). It is important for

acute care organizations to understand factors that will contribute to new graduate nurse

retention, and to encourage them to stay in the nursing profession throughout their

working lives (Laschinger et al., 2010). Nursing researchers have studied new graduate

nurses with the aim of finding effective strategies to support successful transition to

practice and improve retention (Laschinger & Fida, 2014). Findings have consistently

shown that work environments play a key role in new graduate nurses' commitment to

their organization (Laschinger, 2012). Acute care work environment characteristics, such

as positive leadership and structural empowerment, have been identified as important

factors to influencing psychological empowerment and work engagement among new

graduate nurses (Wong & Laschinger, 2013; Laschinger & Fida, 2014). Acute care

clinical nurse educators are in a position of leadership where they are able to establish

trusting relationships with new graduate nurses, enable them to recognize their strengths,

and provide opportunities through education and resources. Clinical nurse educators as

leaders have the ability to positively foster new graduate nurse empowerment and

engagement by providing a leadership role as clinical experts, role models, mentors,

change agents, and supporters of quality projects (Glodoski, 2007; Romyn et al., 2009; Stam et al., 2013; Sayers et al., 2015).

Background and Significance

The nursing profession is experiencing a severe nursing shortage across all healthcare sectors. According to data obtained from the Canadian Institute for Health Information (2017), in 2016 Ontario had just 703 registered nurses per 100,000 people. Further, Ontario currently has its lowest RN-to-population ratio since 2004, and the lowest RN-to-population ratio in Canada (Canadian Institute for Health Information, 2017). As the ratio falls, the number of people each registered nurse must care for increases (Canadian Institute for Health Information, 2017), adding to the current nursing environment characterized by heavy workloads and high patient acuity, resulting in considerable stress among nurses (Laschinger et al., 2009). It is well-documented that nurses of all experience levels are reporting high levels of burnout (Laschinger et al., 2004; Cho et al., 2006; Greco et al., 2006). New graduate nurses in particular experience high levels of anxiety in their transition to the acute acute care workforce, as they are expected to manage higher acuity patients and assume greater responsibilities, while often also lacking the necessary supports to feel empowered within the practice setting (Doelling, Levesque, & Clifford, 2010; Laschinger et al., 2001). This limiting empowerment has been found to lead to absenteeism and attrition from the practice setting, and even the profession of nursing (Ishihara, Ishibashi, Takahashi, & Nakashima, 2014; Laschinger et al., 2001). Therefore, it is crucial that every effort should be made to improve retention among the current nursing workforce within the healthcare system and ensure that the workplace environment is attractive and empowering to new graduate nurses entering the profession.

Nurse leaders can have a major impact on how nurses respond to their working conditions, and the quality of care they provide to the public (Greco et al., 2006). It is reasonable to expect that when leaders empower nurses to accomplish their work in meaningful ways, nurses are more likely to experience an empowering workplace, and consequently less likely to experience burnout and more likely to be more engaged in their work (Greco et al., 2006). Within acute care settings, clinical nurse educators can positively impact new graduate nurses' structural empowerment, psychological empowerment, and engagement in their work through facilitating orientation to acute care organizations and clinical units, organizing and implementing on-going professional development strategies for staff nurses through continued education, and creating change through implementation of evidence-based knowledge translation strategies that support nurses' abilities to provide quality care. This provision of education acts as a support to empowering conditions, ultimately well-situating clinical nurse educators to foster new graduate nurse empowerment, and provide a leadership role as clinical experts, role models, mentors, change agents, and supporters of quality projects (Glodoski, 2007; Romyn et al., 2009; Stam et al., 2013; Sayers et al., 2015).

Studies have shown that nurses who perceive their work environments as structurally and psychologically empowering have increased job satisfaction (Purdy et al., 2010), provide higher quality of care (Greco et al., 2006; Laschinger et al., 2009) have better patient outcomes (Wong, Laschinger, & Cummings, 2010), and are more engaged (Greco, Laschinger, & Wong, 2006; Laschinger et al., 2009; Cicolini, Comparcini, & Simonetti, 2014; Wang & Liu, 2015). Workplace empowerment and employee engagement can be used as strategies for increasing job satisfaction and performance, and have been studied extensively in general management and nursing literature (Spreitzer,

1995; Laschinger et al., 2001; Schaufeli & Bakker, 2004). In nursing, empowering work conditions have been linked to positive organizational outcomes such as job satisfaction, self-efficacy, and organizational commitment (Laschinger et al., 2001). Acute care organizations need to improve new graduate nurses' sense of structural empowerment by providing them with the necessary resources, access to information, supports, and opportunities to learn and grow, as they require additional opportunities to continue to develop both competence and confidence in their ability to practice independently (Stewart, McNulty, Quinn, Griffin, & Fitzpatrick, 2010).

Spreitzer (1995) suggests that an environment that has a solid foundation of the structural and psychological core concepts alone does not necessarily promote an empowered staff. It is important that the new graduate nurse is engaged and understands that their work has impact and meaning (DiNapoli et al., 2016). Work engagement has been defined as a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption (Schaufeli & Bakker, 2003). Thus, strategies to increase work engagement and reduce burnout are important for improving nursing work environments and to assist in retention. Research on work engagement has shown that engaged employees are more satisfied and productive, reporting higher levels of health and well-being (Schaufeli & Bakker, 2004). Bakker, Albrecht, and Leiter (2011) further suggests that employees are more likely to be engaged when their organizations provide a supportive, inclusive, and challenging environment that supports employee's psychological needs.

Laschinger et al. (2009) were the first to examine the impact of empowering work environments on nurses' work engagement and effectiveness. In addition, Laschinger et al. (2007) examined the impact and relationships of leader-member exchange,

empowerment and nurse manager job satisfaction. As far as it is known the effect of structural empowerment and psychological empowerment with the addition of clinical nurse educator leadership on new graduate nurses' work engagement in the acute care setting has not been studied, thus contributing to a gap in the literature. Given the leadership role that clinical nurse educators play in creating supportive work environments for clinical nursing staff, it is important to identify factors that might influence the retention of new graduate nurses. The purpose of this study is to examine new graduate nurses' perceptions of structural empowerment, psychological empowerment, work engagement, and the leadership role of acute care clinical educators in acute care settings.

Theoretical Framework

The following theoretical perspectives were used to guide this study: Structural Empowerment (Kanter,1977), Psychological Empowerment (Spreitzer, 1995), Leader-Manager Exchange (Theory (Graen & Uhl-Bien, 1995), and Work Engagement (Schaufeli and Bakker, 2003).

Structural Empowerment

Kanter (1993) describes power as the ability to mobilize human and material resources to accomplish work, and is attained through access to information, support, resources, and opportunity in the work setting. Access to these sources of structural empowerment is generated from power (Kanter, 1993). Power is the central concept to Kanter's (1977, 1993) structural empowerment theory and is subdivided into formal and informal power. *Formal power* is created from roles that promote visibility, support discretion, offer recognition and contribute to key organizational objectives. *Informal power* refers to and develops as employees increase their network of personal

relationships or alliances made within the organizational system, such as with peers or

staff. According to Kanter (1993), when employees have access to these working

conditions, they will be empowered to accomplish their work meaningfully and increase

their workplace effectiveness. (Figure 1).
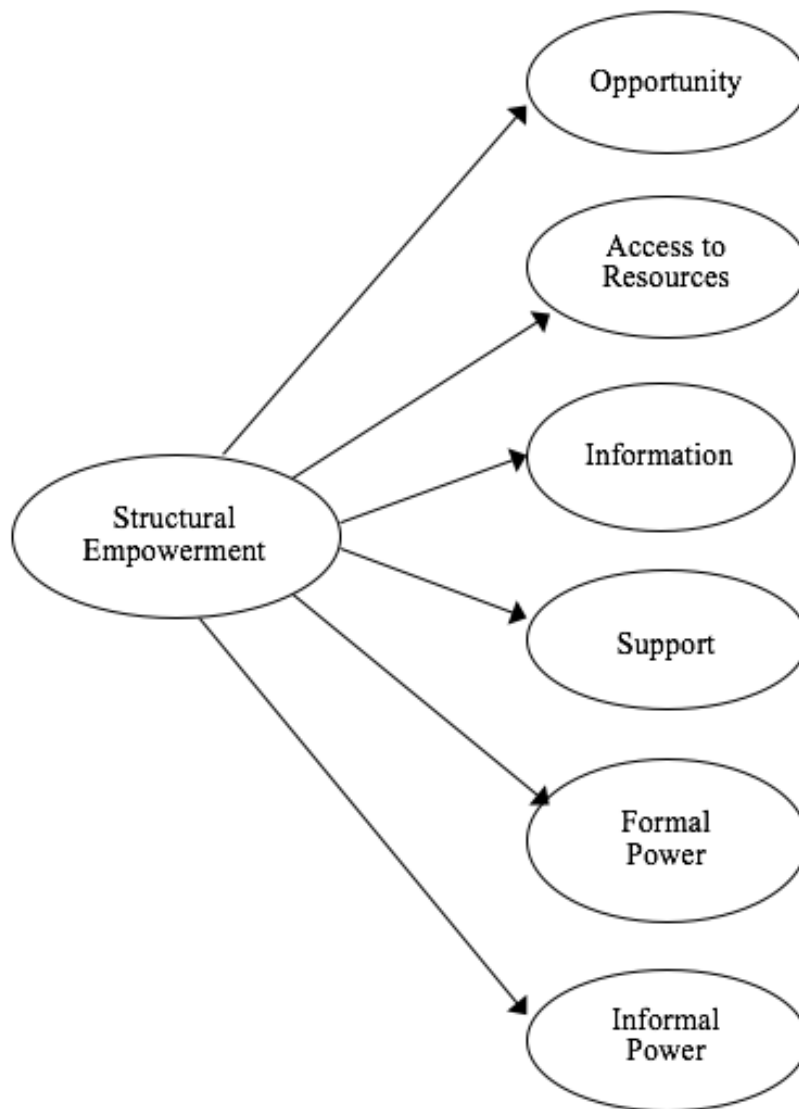
Figure 1. Theoretical Model of Kanter's (1977) Theory of Structural Empowerment

Kanter (1977, 1993) argues that formal and informal power provide access to two organizational structures that promote an empowering workplace: the structure of opportunity and the structure of power. The structure of opportunity is pivotal in determining the degree of engagement with work, which influences employee commitment. Kanter further describes that individuals lacking opportunity are less motivated to succeed and are therefore less productive. The structure of power in the workplace results from access to four main sources consisting of information, support, resources, and opportunity, and contribute to the success of realizing organizational goals. Together these structures influence and shape both power and empowerment within the system. When individuals do not have access to information, support, resources, and opportunities necessary to do their work, they experience powerlessness (Kanter, 1977, 1993). Kanter argues that leaders play a key role in ensuring access to these sources of empowerment in the work setting. *Opportunity* refers to growth, mobility, and the chance to increase knowledge and skills. *Access to resources* refers to the ability to acquire necessary materials, supplies, money, and personnel needed to meet organizational goals. *Information* refers to the data, technical knowledge, and expertise required to perform one's job. *Support* refers to guidance and feedback received from subordinates, peers, and supervisors to enhance effectiveness (Kanter, 1977). Access to these structures has a positive personal impact on employees, resulting in increased levels of organizational commitment, feelings of autonomy, and self-efficacy. Consequently, employees are more productive and effective in meeting organizational goals (Kanter, 1977).

Psychological Empowerment

Psychological empowerment (Spreitzer, 1995) is noted as the psychological state

that employees must experience for empowering interventions to be successful (Spreitzer, 1995; Laschinger et al., 2001). The four components of psychological empowerment are meaning, competence, self-determination, and impact (Figure 2). *Meaning* is the congruence between job requirements and an employee's beliefs, values, and behaviours. *Competence* is confidence in one's job performance abilities. *Self-determination* is the feeling of control over one's work. *Impact* is a sense of being able to influence important outcomes within the organization (Spreitzer, 1995; Laschinger et al., 2001). Psychologically empowered employees feel that the requirements of the job are congruent with their own beliefs and values, which gives the job greater meaning. They have control over their work, and have an impact on important organizational outcomes. Employees with low levels of psychological empowerment have less capacity to cope with organizational stressors and are more likely to respond passively (Spreitzer, 1995). Given the relationships found between structural and psychological empowerment in the research, Laschinger et al. (2001) created the expanded empowerment theory. The addition of psychological empowerment to structural empowerment theory provides an understanding of the intervening mechanisms between structural work conditions and important organizational outcomes. Laschinger et al. (2001) found that higher levels of structural empowerment were predictive of greater psychological empowerment, which in turn, resulted in lower levels of emotional exhaustion and higher job satisfaction. Additional outcomes of psychological empowerment identified in research within nursing populations included psychological empowerment as a significant predictor of job satisfaction, job strain, and decreased intent to leave. The connection of psychological empowerment to structural empowerment is further emphasized in research to be importantly related to nurses' job satisfaction, increased feelings of autonomy, increased

meaning in their work and the ability to have an impact when disempowering structures are removed (Laschinger et al., 2001; Manojlovich & Laschinger, 2002).
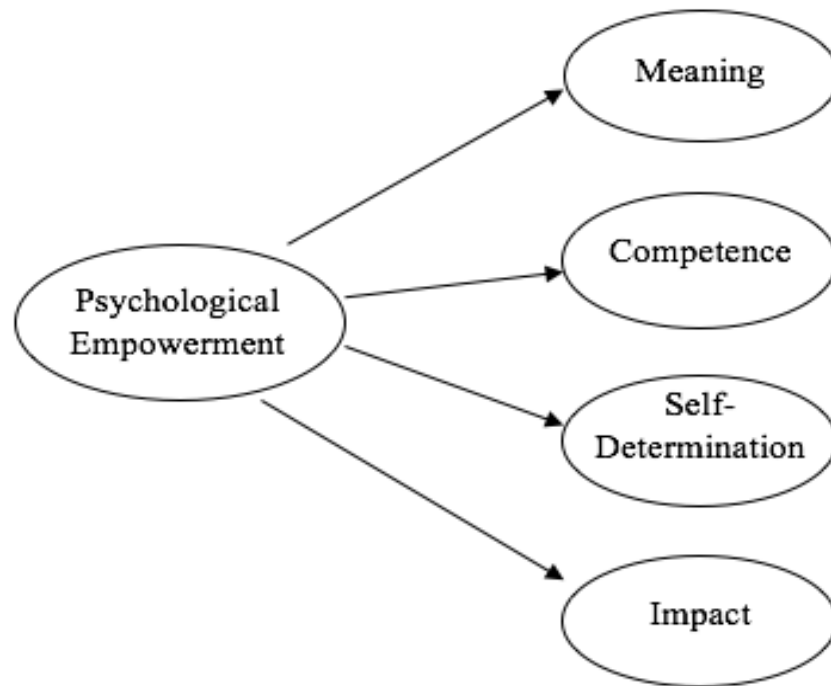
Figure 2. Theoretical Model of Spreitzer's (1995) Theory of Psychological Empowerment

Leader-Member Exchange

Leader-member exchange (LMX) theory posits that the nature and quality of the relationship between the leader and the follower that forms over time plays a vital role in employee responses to their work environments (Graen & Uhl-Bein, 1995). Leader-member exchange is unique in its focus on the dyadic relationship between leader and follower, stating that followers develop unique relationships with their leader, in turn the quality of the relationship influences followers' work attitudes and behaviours (Schaufeli & Bakker, 2003). A high-quality LMX relationship quality consists of four dimensions:

contribution (performing work beyond minimal expectations), *affect* (friendship and

liking), *loyalty* (defending or standing up for an individual), and *professional respect*

(respect for one's professional capabilities*)* for one's capabilities (Figure 3). Research has

linked LMX quality to positive individual and organizational outcomes, such as job

satisfaction, commitment, and job performance (Gertsner & Day, 1997; Laschinger,

Purdy, & Almost, 2007).
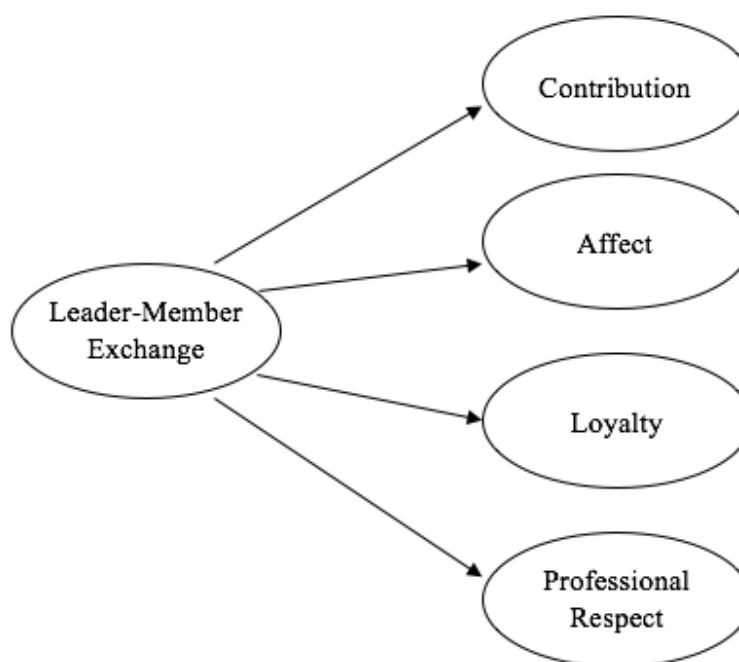
Figure 3. Theoretical Model of Graen & Uhl-Bien (1995) Theory of
         Leader-Member Exchange

Leadership is a key factor in creating empowering conditions in the workplace

(Kirkman & Rosen, 1999), and research has shown that positive manager-employee

relationships result in employee empowerment (Gomez & Rosen, 2001). LMX quality

has been linked to outcomes similar to Kanter's theory on structural empowerment

(Gertsner & Day, 1997). High LMX relationships have resulted in greater access to

resources, whereas low LMX relationships have been associated with fewer resources, more restricted information, and lower job satisfaction (Gertsner & Day, 1997). Davies, Wong, and Laschinger (2011) also found that the combination of LMX theory with structural empowerment was linked to nurse leaders and knowledge transfer to nursing practice to provide evidence-based care.

Liden, Wayne, and Sparrowe (2000) showed that high LMX quality is predictive of the competence and meaningfulness aspects of psychological empowerment. The quality of relationships between managers and workers, particularly at the unit level, where there are greater opportunities for interaction, influences both employee outcomes and unit performance (Gertsner & Day, 1997; Graen, Novak, & Sommercamp, 1982; O'Driscoll & Beehr, 1994).

Lastly, Breevaart et al. (2015) found that employees in high LMX relationships work in more resourceful work environments, which in turn facilitates work engagement. LMX theory is a useful model that the researcher intends to adapt and use to examine the concept of clinical nurse educator leadership, and will help to examine the effects of relationships between clinical nurse educators as leaders and new graduate nurses in acute care organizations (Graen & Uhl Bien, 1995).

Work Engagement

Engagement is defined by Schaufeli and Bakker (2001) as a positive, fulfilling, work-related state of mind characterized by vigor, dedication, and absorption (Figure 4). Rather than a momentary and specific state, engagement refers to a more persistent and pervasive affective-cognitive state that is not focused on any particular object, event, individual, or behaviour (Schaufeli et al., 2002). *Vigor* is described as high levels of energy and mental resilience, the willingness to invest effort in one's work, not being

easily fatigued, and persistence even when confronted with difficulties (Schaufeli &

Bakker, 2001). *Dedication* refers to a strong involvement in one's work, accompanied by

a sense of significance, enthusiasm, inspiration, pride, and challenge from study

(Schaufeli & Bakker, 2001). Finally, *absorption* is characterized by being fully

concentrated and happily engrossed in one's work, whereby time passes quickly and one

has difficulties with detaching oneself from work (Schaufeli & Bakker, 2001). Schaufeli

and Bakker (2001) differentiate work engagement from job satisfaction in that it

combines high work pleasure (dedication) with high activation (vigor, absorption). This

concludes that engagement components correspond to the description of a clearly

motivational construct due to its elements of activation, energy, effort, and persistence

and its aim of achieving objectives. Employees who are engaged in their work find it

energizing, experiencing pride in what they do, time at work passes quickly, and they

have a sense of personal fulfillment and perceived meaningfulness (Biggs, Brough, &

Barber, 2013; Salanova, Llorens, & Schaufeli, 2011).
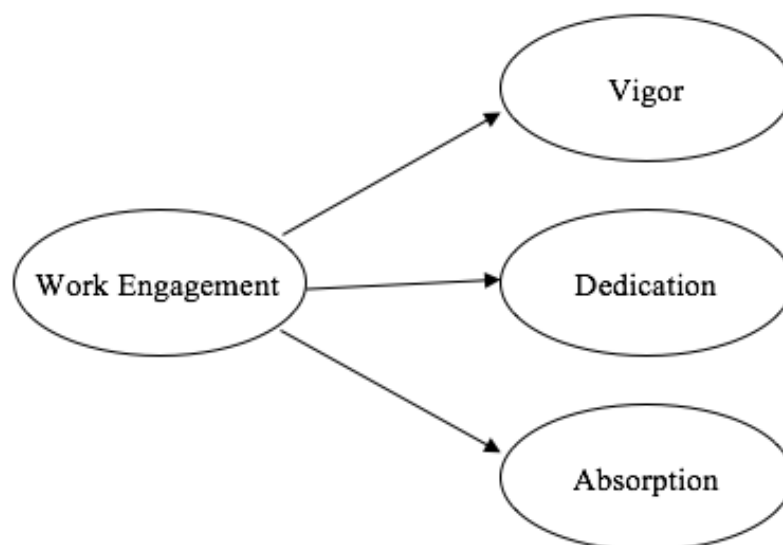
Figure 4. Theoretical Model of Schaufeli & Bakker's (2003)
Theory of Work Engagement

Leadership is regarded as one factor that contributes significantly to the promotion of work engagement (Harter, Schmidt, & Hayes, 2002). Work engagement has been linked to multiple leadership theories, including leader-member exchange (LMX) theory, and has been reported that employees in high LMX relationships work in more resourceful work environments, in turn facilitating employee work engagement (Breevaart et al., 2015)

Work engagement has been studied across various disciplines, most widely business and psychology, and work engagement has been linked to positive organizational outcomes including job performance, productivity, and financial benefits (Harter et al., 2002). Within the nursing population, work engagement has been linked to three types of outcomes; personal, performance and care, and professional outcomes (Keyko et al., 2016). Sawatzky and Enns (2012) linked work engagement to job satisfaction, compassion satisfaction, compassion fatigue, burnout, and intention to leave current position. Laschinger (2012) linked work engagement to job turnover intent, work effectiveness, and intent to leave nursing. Additionally, Giallonardo, Wong, and Iwasiw (2010) linked work engagement to voice behaviour, and perceived care quality.

Related Literature

The purpose of this review is to summarize findings from the literature that support the propositions in this study as well as accentuate the gap in the literature that will be addressed by this research. In this literature review, an overview of the current state of knowledge about the relationships amongst structural empowerment, psychological empowerment, clinical nurse educator leadership, and work engagement is presented. The use of these concepts in both the nursing literature, as well as literature

originating from other disciplines is reported. The decision to limit the search to articles between 2000 and 2019 was made considering the evolution of the now expanded model of empowerment. However, written works that maintain relevance to the topic area prior to 2000 were included, including seminal works that provide insight into the theoretical frameworks used in this study. In addition to an extensive database search, methods including online searching of relevant journals were employed to identify pertinent articles. Research findings related to both structural empowerment and psychological empowerment have been included that demonstrate relationships between structural empowerment and psychological empowerment in general fields, followed specifically by studies in nursing. Research findings related to work engagement have been included that demonstrate work engagement in general fields, followed specifically by studies in nursing. The literature about clinical nurse educator leadership was explored to highlight how this topic has been previously studied. Lastly, a summary of findings from this review will highlight support for the proposed associations among the variables of structural empowerment, psychological empowerment, clinical nurse educator leadership, and work engagement. Gaps in the literature that are proposed to be addressed by this study are also highlighted.

Structural Empowerment

The theoretical framework representing structural empowerment in this study is Kanter's (1977) 'Theory of Structural Power in Organizations'; it has been frequently tested in nursing populations (Laschinger et al., 2001; Laschinger et al., 2004) and conceptualizes empowering conditions as social structures in the workplace that enable employees to accomplish their work in meaningful ways (Kanter 1977,1993).

Within the nursing population there has been considerable research literature produced to

support Kanter's empowerment theory. In the earlier studies about structural empowerment, Laschinger et al. (2001) conducted a predictive, non-experimental study with a random sample of 404 Canadian staff nurses using the Conditions of Work Effectiveness Questionnaire-II (CWEQ-II) instrument developed by Laschinger et al. (2001) and found structural empowerment to be a statistically significant predictor of such work outcomes as high levels of nurse job satisfaction, organizational commitment, and low levels of job strain and burnout.

Adding to these outcomes, Laschinger and Finegan (2005) conducted a predictive, non-experimental study testing a model linking structural empowerment to the six areas of worklife, which were argued to be precursors of work engagement or low burnout levels. A total of 285 randomly sampled registered nurses were involved, and the researchers used the following tools: the CWEQ-II (Laschinger et al., 2001), the Maslach Burnout Inventory-General Survey (Schaufeli et al., 1996), the Pressure Management Indicator (Williams & Cooper, 1998), the Work Overload Scale (Dekker & Barling, 1995), Trust in Management Scale (Mishra, 1996), and Spreitzer's (1995) Psychological Empowerment Scale. Laschinger and Finegan (2005) found that in addition to organizational commitment and high levels of job satisfaction, that the presence of structural empowerment was related to increased work engagement and respect. Laschinger (2012) conducted a cross-sectional study with 342 new graduate nurses with two years of experience or less with the purpose of examining predictors of job and career satisfaction and turnover intentions. To measure these variables, the Areas of Work Life Scale (Leiter & Maslach, 2004), the CWEQ-II (Laschinger et al., 2001), Authentic Leadership Questionnaire (Walumba et al., 2008), Core Self-Evaluation (Judge et al., 2003), Utrecht Work Engagement Scale (Schaufeli & Bakker, 2003), Maslach

Burnout Inventory-General Scale (Schaufeli et al., 1996), Negative Acts Questionnaire-Revised (Einarsen & Hoel, 2001), Workplace Incivility Scale (Cortina et al., 2001), Pressure Management Indicator (Williams & Cooper, 1998), Satisfaction Scale (Hackman & Oldham, 1975), and the Turnover Intent (Kelloway et al., 1999) instrument. Laschinger (2012) found that empowerment, incivility, and emotional exhaustion were important predictors of job satisfaction during the first year of nursing practice, and only empowerment and cynicism were important for those in their second year of practice, suggesting that new graduate nurses learn to deal with uncivil work behaviours as part of the job. Structural empowerment, work engagement, and burnout were found to be important predictors of job and career turnover intentions.

Roche, Lamoureux, and Teehan (2004) used structural empowerment as a framework to inform new graduate orientation to the workplace, which involved a program model to develop each component of the Kanter's (1993) theory in practice. The model included 12-weeks of orientation with a preceptor, support groups, communication activity, and access to clinical and classroom learning opportunities (Roche et al., 2004). With ninety-five percent of participants reporting its effectiveness in preparing them for work on the unit, the study demonstrates the applicability Kanter's (1993) structural empowerment theoretical perspective as an approach to supporting new graduate nurses' transition into the workplace.

Psychological Empowerment

Drawing from literature about empowerment from psychology, social work, sociology, and education, Spreitzer (1995) describes empowerment as a psychological experience perceived by employees that determines the success of their involvement in empowering initiatives, and is manifested in a set of four cognitions reflecting an

individual's orientation to his or her work role: meaning, competence, self-determination, and impact. It has been well documented that psychological empowerment is a consequence of structural empowerment. Spreitzer (1995) randomly sampled 393 mid-level manager employees from a Fortune 50 industrial organization. A questionnaire measuring the four items of psychological empowerment including meaning, competence, self-determination, and impact were administered. Spreitzer (1995) found that managers' access to strategic information in the organization and to information on their units' quality and cost performance were significantly related to their perceived psychological empowerment and ultimately their commitment to the organization. Singh, Pilkington, and Patrick (2014) conducted a mixed methods study consisting of an online survey and semi-structured interviews to explore how organizational culture and the perceived level of psychological and structural empowerment are associated with one's work environment. A convenience sample of 74 nurse educators were included in this study. The measurement scales for this study included: Laschinger et al., (2001) CWEQ-II, Spreitzer's (1995) Psychological Empowerment Scale, and Cameron and Quinn's (2006) Organizational Culture Assessment Instrument. Singh, Pilkington, and Patrick (2014) found that nurse educators indicated that a supportive work environment was a key determinant to organizational commitment and that organizational characteristics influenced recruitment. Their study also provided further evidence that organizational culture is a contributor to psychological empowerment.

Wang and Liu (2015) conducted a predictive, non-experimental study with 300 clinical nurses from two tertiary first class hospitals in Tianjin, China to investigate the influence of professional nursing practice and psychological empowerment on nurses' work engagement. The Chinese version of the Utrecht Work Engagement Scale (Zhang

& Gan, 2005), the Practice Environment Scale of the Nursing Work Index (Lake, 2002), and the Psychological Empowerment Scale (Spreitzer, 1995) were used to measure the study variables. Wang and Liu (2015) found that psychological empowerment was found to mediate the relationship between practice environments and work engagement. The study suggests that in a time of nursing shortage, hospitals and leadership should make every effort to ensure that nurses are exposed to empowering and high-quality work environments that make it possible for nurses to be better engaged in their work (Wang & Liu, 2015).

Structural and Psychological Empowerment

The combination of structural and psychological empowerment has been researched with several nursing populations. Laschinger et al. (2001) integrated Spreitzer's (1995) psychological empowerment theory with Kanter's (1977,1993) structural empowerment theory. The predictive, non-experimental study included a random sample of 404 Canadian staff nurses using the CWEQ-II (Laschinger et al., 2001), Spreitzer's (1995) Psychological Empowerment Questionnaire, a modified Job Content Questionnaire (Karesek, 1979), and the Global Satisfaction Scale (Laschinger et al., 2001). The study provided an understanding of the empowerment process in which both nurses' perceptions of structural components in the workplace influenced their personal perceptions of empowerment (Laschinger et al., 2001). Laschinger et al., (2001) also found that structural and psychological empowerment were found to be highly correlated with one another, and that they have been associated with job strain and job satisfaction.

Manojlovich and Laschinger (2002) conducted a secondary data study with a random sample of 347 registered nurses from all acute care specialty areas to better

understand the determinants of job satisfaction for hospital nurses. Both workplace and personal factors were measured. Instruments used were the Conditions of Work Effectiveness Questionnaire (CWEQ) (Chandler, 1986), Pearlin and Schooler's (1978) Mastery scale, and a Job Satisfaction scale (Laschinger, 1996). Manojlovich and Laschinger (2002) further emphasized that both structural and psychological empowerment were significantly related to nurses' job satisfaction. These studies support the contention that employees are more likely to feel autonomous, find meaning in their work and believe they can have an impact when disempowering structures are removed (Laschinger et al., 2001; Manojlovich & Laschinger, 2002).

Wiens, Babenko-Mould, and Iwasiw (2014), explored clinical instructors' experiences of structural and psychological empowerment from two nursing academic programs. The aim of the study was to develop an understanding of clinical instructors' empowerment that could inform the development of a new and empowered role for clinical instructors, and to explore a collaborative role with academic faculty to support conceptually consistent learning for students. Through semi-structured interviews of the eight clinical instructors, it was found that all empowerment components were important to clinical instructors, with more emphasis on the structural empowerment component of support and the psychological empowerment component of confidence as key priorities. A theme that arose was that clinical instructors struggled to participate in the academic environment in a way that would effectively empower their role performance and that their role was critically affected by a lack of faculty support, specifically feedback. An absence of positive feedback and mentoring from academic faculty was a common experience of clinical instructors. the development and retention of expert clinical instructors would benefit by increased support, and that slow growth and confidence in

clinical instructor abilities was a barrier to teaching. Wiens, Babenko-Mould, and Iwasiw (2014) suggest that clinical instructors who are provided with sufficient empowerment in the structure of the academic environment and take initiative to access those provisions are more likely to feel empowered psychologically and able to fulfill their role effectively.

Stewart et al. (2010) conducted a study with 74 nurse practitioners in the United States to examine the relationship of perceptions of structural empowerment and psychological empowerment among nurse practitioners using the CWEQ-II (Laschinger et al., 2001), and Spreitzer's (1995) Psychological Empowerment Questionnaire. Stewart et al. (2010) found that nurse practitioners in their study felt that conditions in their work setting that enhanced structural empowerment resulted in greater perceptions of psychological empowerment. Furthermore, nurse practitioners who are psychologically empowered would benefit from seeking work environments that have access to structurally empowering elements in order to find meaning in their work, benefit from job satisfaction, and be effective in their practice (Stewart et al., 2010).

Clinical Nurse Educator Leadership

Currently there is little literature that exists to describe clinical nurse educator leadership. A wider scope of knowledge exists in regards to clinical nurse leadership, rather than clinical nurse educator leadership specifically. The majority of the literature that exists is based on qualitative reports of new graduate nurses and clinical educators, with limited literature using quantitative methods. Within the literature that exists, clinical nurse educator leadership is mostly limited to mental health nursing practice. Adelmann-Mullally et al. (2013) conducted a systematic review of leadership literature within and outside nursing and reflected on nursing education leadership during

a year-long series of discussion. Through their discussions and exploration of leadership theories. they identified five overarching themes that demonstrate ways in which clinical nurse educators exemplify leadership. These five themes include role modeling, providing vision, helping students to learn, challenging the system or status quo, and seeking relational integrity (Adelman-Mullaly et al., 2013). Adelman-Mullaly et al. (2013) also found that clinical nurse educators demonstrate leadership by helping novice nurses envision goals, as well as helping to develop new graduate nurse leadership by providing an atmosphere where new graduate nurses could explore and practice their leadership skills in the clinical setting. They further concluded through the review that programs that help the clinical nurse educator to develop leadership skills for the practice setting would help to benefit new graduate nurses in the practice setting, and that the clinical nurse educator as leader provides an environment in which new graduates are inspired and feel safe enough to test their own thinking and leadership skills in the clinical setting (Adelman-Mullaly et al., 2013).

A study by Crosby and Shields (2010) echoed findings of Adelman-Mullaly et al. (2013) regarding the importance of providing an atmosphere for new graduate nurses to develop their own leadership. Crosby and Shields (2010) surveyed a convenience sample of 85 clinical nurse leaders from various settings including acute, long-term, home, primary, palliative care, and nurse education. These nurse participants also served on an advisory council to a nurse education program at a Western New York university. The nurse participants completed a 4-page written workshop evaluation with open-ended questions that asked respondents about leadership development to guide educational offerings, as well as a demographic questionnaire. Findings showed that clinical nurse leaders identified important themes that clinical nurse educators need to employ to

promote the new graduate nurse leadership. These themes included improved communication skills, conflict resolution, and the multigenerational nature of the nursing workforce. The blend of generations in the workplace, rather than creating conflict, can stimulate learning and sharing of ideas from various perspectives. Respect and communication are critical for sustaining an environment that recognizes each nurse as an integral part of the organization. Differences and similarities, meanings of behaviors, characteristics of each group, and ways to accommodate variety in working styles, while maintaining a focus on organizational goals, were discussed to facilitate effective integration of the talents of the various generations (Crosby & Shields, 2010). Sayers, Lopez, Howard, and Cleary (2015) conducted a systematic review of the literature to help better describe the roles and attributes of clinical nurse educators with a focus on their role as leaders in mental health nursing. Sayers et al. (2015) found that clinical nurse educators have a responsibility to promote and role model ethical leadership which focuses on achieving good outcomes, encouraging others, being accountable for actions and being responsible, so that new graduate nurses in turn understand and develop ethical leadership in their professional practice. Sayers et al. (2015) suggested that clinical nurse educators can do this by providing education about nursing knowledge and its relationship to ethical principles, encourage reflection and discussion about ethical issues in practice, support and provide feedback to new graduate nurses as they practice and develop ethical behaviours, and provide strategies to prevent ethical issues in future practice.

Work Engagement

A significant body of research in other disciplines other than nursing demonstrates relationships between work engagement of employees and positive

organizational outcomes, and has since stimulated interest in work engagement of registered nurses. Existing research and literature support the idea that understanding the factors related to registered nurses' work engagement is needed to enable development of initiatives that enhance work engagement and its outcomes within the current health care context (Keyko, Cummings, Yonge, & Wong, 2016).

Keyko et al. (2016) conducted a systematic review of 18 full-text qualitative and quantitative articles. The researchers conducted quality assessment, data extractions, and analysis on all included studies. The researchers examined and grouped each article into either influences or outcomes of work engagement. A total of 77 influencing factors were categorized into 6 themes including organizational climate, job sources, professional resources, job demands, and demographic variables. A total of 17 outcomes of work engagement were categorized into three themes including performance and care outcomes, professional outcomes, and personal outcomes. Through their research they adapted the Job Demands-Resources (JD-R) model and developed the Nursing Job Demands-Resources (NJD-R) model for work engagement in professional nursing practice, which reflects key adaptations related to organizational climate and professional resources (Keyko et al., 2016).

Garcia-Sierra, Fernandez-Castro, and Martinez-Zaragoza (2016) conducted an integrative review. The researchers analyzed 27 empirical research studies, 24 quantitative and 3 qualitative, and identified four major themes including organizational antecedents of work engagement, individual antecedents of work engagement, characteristics of the impact of nurse managers on work engagement, and outcomes of work engagement. Organizational antecedents of work engagement included areas of worklife, structural empowerment, and social support. Individual antecedents of work

engagement included personal traits, professional characteristics, family issues, and work orientation. Impact of nurse managers was found to be an important predictor of work engagement of registered nurses. Outcomes of work engagement included performance, and job satisfaction and intention to remain in the institution (Garcia-Sierra et al., 2016). The researchers concluded that work engagement influences nurses' performance and has an impact on healthcare outcomes; that work engagement is the result of the interaction between dispositional factors, personal learning throughout their professional careers and their work environment; and that positive work climates, social supports from the organization and the influence of supervisors through leadership styles are important factors for fostering work engagement of nurses (Garcia-Sierra et al., 2016).

Summary of the Literature

The literature review demonstrated significant and well-supported associations between structural empowerment and psychological empowerment in the nursing workforce (Laschinger et al., 2001; Manojlovich & Laschinger, 2002; Singh, Pilkington, & Patrick, 2014; Stewart, McNulty, Griffin, & Fitzpatrick, 2010), and among specific subgroups in nursing such as clinical instructors and nurse practitioners. There is also a significant body of research that provides insights into the outcomes associated with an engaged nursing workforce, and the influence that access to structurally empowering factors have on this population. The concept of leadership has been thoroughly researched in the nursing workforce, with many research studies focusing on theories of authentic leadership and transformational leadership. Leader-member exchange theory however has not been researched as extensively in relation to the constructs of structural empowerment, psychological empowerment, or work engagement amongst nurses. A gap in the literature was identified such that the role of acute care clinical nurse educators as

leaders has not been largely explored. Further, relationships among structural empowerment, psychological empowerment, clinical nurse educator leadership, and work engagement, have not been fully examined, nor in relation to new graduate nurses. The current study may contribute to the understanding of clinical nurse educator as leaders. This may further nursing knowledge on how this leadership role interacts with the new graduate nurse population in cultivating an empowered and engaged workforce.

Hypotheses

The objective of this study was to examine the following hypotheses:

i.   Structural empowerment will be positively related to new graduate nurses' psychological empowerment in acute care settings.

ii.   Structural empowerment will be positively related to new graduate nurses' work engagement.

iii.   Clinical nurse educator leadership will moderate the relationship between structural empowerment and psychological empowerment among new graduate nurses in acute care settings.

iv.   Clinical nurse educator leadership will be positively related to psychological empowerment.

v.   Psychological empowerment will be positively related to work engagement.

vi.   Clinical nurse educator leadership will be positively related to work engagement.
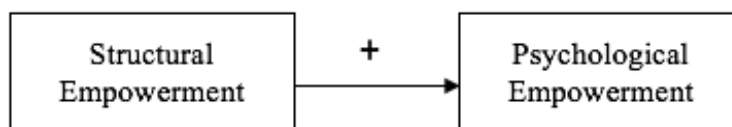
Figure 5. Hypothesized model demonstrating that structural empowerment will be positively related to new graduate nurses' psychological empowerment in acute care settings.
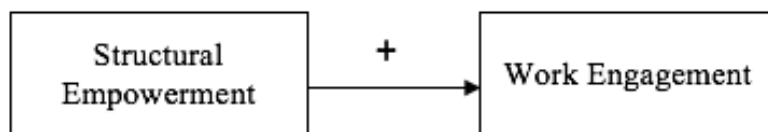
Figure 6. Hypothesized model demonstrating that structural empowerment will be positively related to new graduate nurses' work engagement in acute care settings.
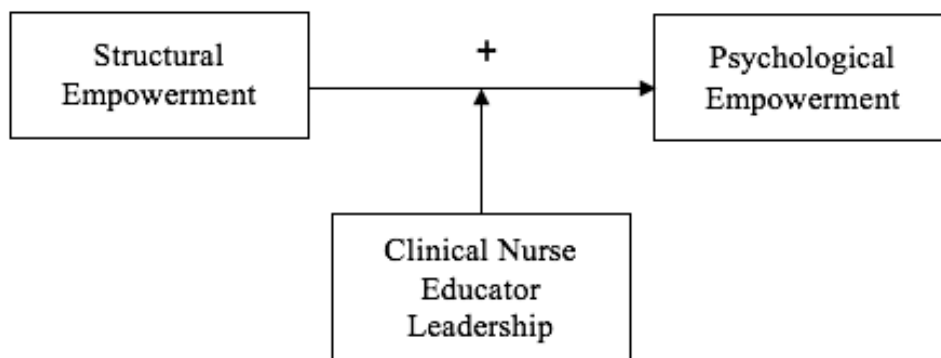
Figure 7. Hypothesized model demonstrating that clinical nurse educator leadership will moderate the relationship between structural empowerment and psychological empowerment among new graduate nurses in acute care settings.

Figure 8. Hypothesized model demonstrating that clinical nurse educator leadership will be positively related to new graduate nurses' psychological empowerment in acute care settings.
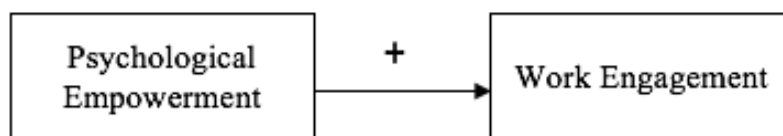
Figure 9. Hypothesized model demonstrating that psychological empowerment will be positively related to new graduate nurses' work engagement in acute care settings.
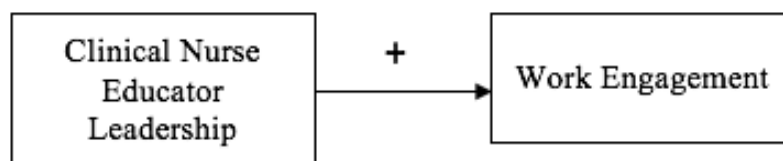
Figure 10. Hypothesized model demonstrating that new graduate staff nurse ratings of clinical nurse educator leadership is positively related to work engagement.
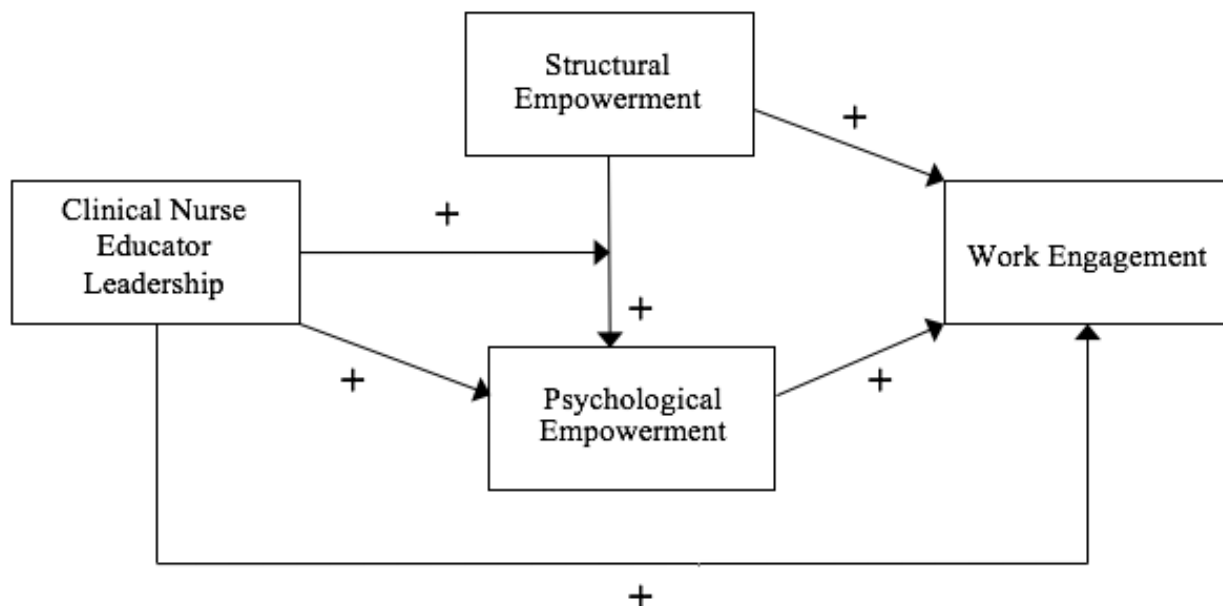
Figure 11. Overarching Hypothesized Model inclusive of all six hypotheses.

Rationale for Hypotheses

An organization's ability to create structural conditions that enable employees to accomplish their work in meaningful ways through access to information, support, resources, and opportunities may contribute to an individual or groups' perceptions of psychological empowerment inclusive of meaning, competence, self-determination, and impact (Kanter, 1977; Spreitzer, 1995; Laschinger et al., 2001). High-quality relationships between new graduate nurses and their clinical nurse educator leaders, characterized by loyalty, affect, contribution, and professional respect, are thought to benefit the new graduate nurse through improved access to structurally empowering

conditions (i.e., resources, information, opportunities, and supports). Through access to these structurally empowering conditions, new graduate nurses will feel psychologically empowered and able to find meaning in their work, feel competent in their abilities, feel that they have an impact in their role, as well as a sense of determination. The clinical nurse educator can enable access to these structurally empowering conditions that may then allow the individual to feel psychologically empowered (Graen & Uhl-Bien, 1995; Kanter, 1977; Laschinger et al. 2001; Laschinger et al., 2007). Clinical nurse educator leaders have the ability to generate a dyadic relationship over time with new graduate nurses as learners (followers) and play a vital role during initial orientation and ongoing educational support of the new graduate nurse, in turn developing an ability to influence the new graduate nurses' work attitudes and behaviours (Schaufeli & Bakker, 2003). The clinical nurse educator leader and new graduate nurse follower relationship has the ability to be inclusive of the four dimensions of LMX theory (contribution, affect, loyalty, and professional respect), and may contribute to positive outcomes such as new graduate work engagement (Graen & Uhl-Bein, 1995; Laschinger et al., 2007). Employees that are more likely to be engaged when their organizations provide a supportive, inclusive, and challenging environment that supports employees' psychological needs (Schaufeli & Bakker, 2003). It can be reasoned then that organizations that enable conditions that lead to structural and psychological empowerment may contribute to new graduate work engagement (Kanter, 1977, Spreitzer, 1995; Laschinger et al., 2001; Schaufeli & Bakker, 2003). Current evidence on the relationships between structural empowerment, psychological empowerment, and clinical nurse educator leadership, and work engagement have not been extensively researched, thus supporting the need for future research.

Methods

Design, Setting and Sample

A predictive non-experimental cross-sectional correlational design was used in this study to examine the effect of structural empowerment, psychological empowerment, clinical nurse educator leadership on new graduate nurses' work engagement in acute care settings.

The setting of this study was in Ontario, Canada. The purpose of choosing Ontario as the main location from which to sample, was due to the researcher's intended use of the College of Nurses of Ontario (CNO) research database. The CNO is the governing body for registered nurses in Ontario that regulates standards and maintains licensing for the province's nursing professionals. The research database allows researchers to gain contact information of nurse educators who have displayed interest in being involved as participants in research studies. The CNO releases names and home addresses of nurses who have consented to allow their contact information to be provided to researchers.

A random sample of registered nurses working in acute care hospitals in Ontario were selected from the College of Nurses of Ontario registry to participate in the study. Participants met inclusion criteria of being a registered staff nurse employed with a designation of full-time, part-time, or casual in a direct care nursing position, had worked three years or less since graduating from a baccalaureate nursing program, were English language speaking, and were working in an acute care setting in large urban centres. Nurse managers, and advanced practice nurses were excluded, as well as registered staff nurses with greater than four years of work experience as registered nurses. Furthermore, registered nurses working in small rural centres were also excluded as they are less

exposed to more comprehensive clinical nurse educator leadership and may not yield comprehensive data related to the study

A power analysis was conducted using G*Power 3.1, based on a regression analysis to predict outcomes and relationships among the three predictor variables of structural empowerment, psychological empowerment, and clinical nurse educator leadership, and the outcome variable of work engagement. Based on an alpha of 0.05, a power level of 0.80, and a small effect size (0.10), three predictor variables (structural empowerment, psychological empowerment, and clinical nurse educator leadership) and one outcome variable (work engagement), the calculation revealed that a minimum of 81 participants was required to conduct a sufficient linear multiple regression. However, 200 participants were recruited to participate in this study to account for lower (approximately 50%) response rates typically found with mailed surveys (Polit & Beck, 2012), and potential attrition of new graduate nurses from acute care facility employers. A total of 83 new graduate nurses were included as participants in this study, creating a study response rate of 41.5%.

Study participant demographics are presented in Table 1 and 2. In this sample of new graduate nurse participants (n=83), 72 (87%) were female and 11 were male (13%) with ages ranging from 22-44 years-old ($M = 27.12$ $SD = 5.74$). The majority of new graduate nurses noted their highest level of education as a baccalaureate degree, while a small number (n=4) note as having obtained a master's degree. Most new graduate nurses surveyed at the time were working in teaching (academic) hospitals (n=54), while the remainder were working in community hospitals (n=28). Status of employment was split fairly evenly between full-time employment and part-time employment, with no participants currently in casual working positions. Years working in the profession

ranged from six months to 15 years ($M = 2.05$, $SD = 2.31$), years working in present

facility ranged from three months to seven years ($M = 1.38$, $SD = 1.05$), and years

worked on current unit ranged from two months to three years ($M = 1.09$, $SD = 0.57$).

Important to note however, is on surveys with years worked in profession, years worked

in present facility, and years working on current unit with responses indicating more than

three years, 1 participant indicated they had been working as a Registered Practical Nurse

before being a Registered Nurse. This indicates that although they had been Registered

Nurses for 3 years or less, they had been in the nursing profession with a different

registration class for a longer period of time prior. This participant is considered an

outlier in this study sample. The type of unit worked on was more varied, but

predominantly the majority of new graduate nurses surveyed were working on medical

units, surgical units, and intensive care units.

Table 1

Observed Means and Standard Deviations for Demographic Variables of Years Worked

in Profession, Present Facility (n=83)

Variable	Mean	SD
Years Worked		
In your Profession	2.05	2.31
In your Present Facility	1.38	1.05
On your Current Unit	1.09	.57

Table 2

Frequency Distribution for Demographic Variables Excluding Years Worked in

Profession, Facility, and Current Unit (n=83)

Variable	Frequency (n)	Percent (%)
Gender		
Male	10	13.3
Female	73	86.7
Age		
20-29	65	78.2
30-39	11	12.1
40-49	8	9.6
Missing data	1	0.1
Highest Level of Education		
College Diploma	0	0
Bachelor's Degree	79	95.2
Master's Degree	4	4.8
Doctorate	0	0
Type of Hospital Employed		
Teaching (Academic)	54	65.1
Community	28	33.7
Missing data	1	1.2
Current Employment Status		
Full Time	46	55.4
Part Time	37	44.6
Casual	0	0
Type of Employment		
Permanent	79	95.2
Temporary	4	4.8
Type of Unit Worked		
Medical	29	34.9
Surgical	12	14.5
Intensive Care	11	13.3
Obstetrics	7	8.4
Pediatrics	3	3.6
Operating Room	0	0
Post-Anesthetic Care	1	1.2
Psychiatry	0	0
Emergency	10	12.0
Ambulatory Care	4	4.8
Other	7	7.3

Instruments

As part of the study, five instruments were distributed to study participants. These included: a demographic questionnaire, the *Conditions for Work Effectiveness Questionnaire-II (CWEQ-II)* (Laschinger et al., 2000) (Appendix A. 01), the *Psychological Empowerment Scale (PES)* (Spreitzer, 1995) (Appendix A. 02), the *Modified LMX-LDM (2017) Clinical Nurse Educator Leader-Staff Nurse Exchange-Multidimensional Measure* (Babenko-Mould & Blair, 2017) (Appendix A. 03), and the *Utrecht Work Engagement Scale -17 (UWES-17)* (Schaufeli & Bakker, 2003) (Appendix A. 04).

Demographic Questionnaire

A demographic questionnaire was administered as part of the survey package to examine variables such as age, gender, education, employment status, years of nursing experience, length of employment in current setting and in specific practice area (Appendix A. 05). The demographic data was examined to help determine whether the participants met the eligibility criteria for the study. The data also aided the researcher in better understanding the study sample in order to examine potential associations between the demographic information and the major study variables. The researcher did not try to control demographic variables due to the study sample size (n=83).

Structural Empowerment

The *Conditions for Work Effectiveness Questionnaire-II* (CWEQ-II) developed by Laschinger et al. (2000) was used in this study to measure nurses' perceptions of their empowerment in the acute care setting. The CWEQ-II consists of 19 items that are responded to on a 5-point Likert scale (1-5) that measure the six components (subscales) of Kanter's (1997) structural empowerment model (opportunity, information, support,

resources, formal power, and informal power). The items within each subscale are summed and averaged to provide a total subscale score. The subscale scores were then summed to create the overall total measure of structural empowerment (Laschinger et al., 2001). The total structural empowerment score can range from 6 to 30 (Laschinger et al., 2001). Lower empowerment scores are indicated by scores ranging from 6 to 13, moderate scores range between 14 to 22, and high empowerment scores are from 23 to 30 (Laschinger et al., 2001). The *CWEQ-II* has been previously validated by Laschinger et al. (2001) with Cronbach alpha reliabilities ranging from 0.79 to 0.82 (Laschinger, Almost, Purdy, & Kim, 2004). More recently, a Cronbach alpha reliability of 0.85 was noted in a study by Boamah, Read, and Laschinger (2016).

Psychological Empowerment

The *Psychological Empowerment Scale* (PES) was developed by Spreitzer (1995) and used in this study to measure the four components of the psychological empowerment construct, as perceived by nurses in acute care organizations: meaningful work, competence, autonomy, and impact. The PES consists of 12 items that are rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Items for each subscale were summed and averaged to give a score for each subscale. The subscale scores were then summed to create the overall total measure of psychological empowerment, with the potential to range between 4 and 24. Higher overall scores represent higher perceptions of the psychological empowerment construct. Spreitzer (1995) established evidence of convergent and divergent validity in a study of managers and non-management personnel. Spreitzer's (1995) Psychological Empowerment Scale has been previously validated, yielding acceptable Cronbach alpha values for the entire scale have as ranging from 0.70 to 0.86 (Laschinger, Nosko, Wilk, & Finegan, 2014).

Clinical Nurse Educator Leadership

The researcher implemented an adapted tool based on Liden and Maslyn's (1998) *Leader-Member Exchange-Multidimensional Measure (LMX-MDM)*, titled A Modified LMX-MDM (2017) *Clinical Nurse Educator Leader-Staff Nurse Exchange-Multidimensional Measure.* The Modified LMX-MDM (2017) measured the four dimensions of LMX (affect, loyalty, contribution, and professional respect). All items included are nearly identical to the original (1998) LMX-MDM, except that the term "manager" was changed to "clinical nurse educator" to reflect new graduate nurses' perceptions of clinical nurse educator leadership in acute care organizations. The Modified LMX-MDM (2017) tool includes 12-items that are rated on a 7-point Likert scale from "strongly disagree" (1) to "strongly agree" (7). Cronbach alpha for the total LMX-MDM has been reported as .92. Previous exploratory and confirmatory factor analyses have demonstrated the validity of the LMX-MDM. The Modified LMX-MDM (2017) tool was used to examine the effects of relationships between nurses' perceptions of clinical nurse educators as leaders. It was also used to assess whether clinical nurse educator leadership moderates the relationship between structural empowerment and psychological empowerment among nurses in acute care settings. The tool contains 12-items and is rated on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Literature on clinical nurse educator leadership and role descriptions of clinical nurse educators was reviewed for item relevance.

Polit and Beck (2012) state that a Cronbach alpha score at or above 0.80 represents a tool that is highly relevant to the subject being measured. Cronbach alpha for the total LMX-MDM (Liden & Maslyn, 1998) has been previously reported as 0.92. Cronbach alpha for this study was 0.93.

Work Engagement

The *Utrecht Work Engagement Scale-17* (UWES-17) developed by Schaufeli and Bakker (2003) was used in this study to assess nurses' perceptions of their work engagement. The UWES-17 consists of 17-items on a 7-point Likert scale ranging from 0 (*never*) to 6 (*always*) that measure the underlying dimensions of work engagement: vigor (VI, 6 items), dedication (DE, 5 items), and absorption (AB, 6 items). Items for each subscale were summed and averaged to give a score for each subscale. The subscale scores were then summed to create the overall total measure of work engagement that can range from 0 to 63. Higher overall scores represent higher perceptions of the work engagement construct. In its initial development and implementation, the UWES-17 had been validated and had produced Cronbach alpha reliabilities ranging of 0.80 and greater (Schaufeli & Bakker, 2003).

Data Collection

Ethical approval was received from The University of Western Ontario's Research Ethics Board for Health Sciences in January 2018 (Appendix B). The researcher utilized the CNO database to develop the random sample for this study. To gain access to potential participant mailing addresses, the graduate student researcher completed the Request for CNO Data Form (Appendix D. 01) and the Home Mailing Address List Request Form (Appendix D. 02) in order to request contact information for participants meeting study inclusion criteria for all of Ontario. After permission was granted to the researcher and principal investigator by the CNO, a password-protected document containing contact information for potential participants was sent to the graduate student researcher's and principal investigator's password protected UWO email addresses. A separate email containing the password to access the list was sent by the

CNO to the graduate student researcher's and principal investigator's password-protected UWO email addresses. A modified Dillman approach based on the original Total Design Method (Dillman, 2000) was used to maximize the response of mailed surveys. Potential participants were mailed an instrument package that included the study letter of information (Appendix C. 01) and the study instruments. The package also contained a stamped return-addressed envelope to the graduate student supervisor's University office address. A pre-loaded Tim Horton's $5 gift card was mailed to each participant with the initial instrument package, whether or not they chose to participate in the study. Participants were notified of this compensation in the study letter of information and the follow-up reminder letter of information (Appendix C. 02). A follow-up reminder letter of information was sent to all potential participants who had not yet returned their study instruments three weeks after the initial survey was mailed. Five weeks after the second mailing, a final package consisting of a follow-up letter of information, replacement questionnaires, and a return-addressed stamped envelope were sent to all non-respondents. Individual study instruments and demographic questionnaires were numerically coded and only identifiable to the researchers, in order to maintain participants' confidentiality and to facilitate the follow-up of being able to send the reminder letter and follow-up package to nurses who did not initially respond. Personal identifiers were stored, with their corresponding instrument package codes on a master list, in a locked file cabinet in the PI's locked University office. Further, all hardcopies of completed instruments were stored in a locked file cabinet separate from the master list in the PI's locked University office. Study data from hardcopies of returned study instruments were entered into a password protected electronic SPSS file that held on the PI's password protected University office computer, and the graduate student

researcher's computer, which is also password protected. De-identified data that is on a password protected SPSS file was also be held by the PI and graduate student researcher on two flash drives, which are password protected. Return of the completed survey packages signified consent to participate in the study as outlined in the study letter of information.

Data Analysis

All data was analyzed using the Statistical Package for Social Sciences (SPSS) version 26.0 (2019). The data was first assessed for the amount and pattern of missing data. Descriptive statistics were calculated on all study variables. As the surveys were returned, each was reviewed for completeness, and data was entered into the SPSS database using the coded identifying number. It is important to note that on three separate surveys, the survey participants identified not having a clinical nurse educator for their department, therefore the researcher decided to remove these study participant responses as not to skew the data and to avoid misrepresenting the data. As outlined in Plitchta and Kelvin (2013), data was assessed to establish if the data collected was normally distributed using skewness and kurtosis analysis, and if there were linear relationships between the four predictor variables of structural empowerment (SE), new graduate nurses' psychological empowerment (PE), clinical nurse educator leadership (CNEL), and new graduate nurses' perceptions of clinical nurse educator leadership and the outcome variable work engagement (WE). Relationships between the demographic variables of gender, age, current employment status, type of employment, and major study variables (structural empowerment, psychological empowerment, clinical nurse educator leadership, and work engagement) were analyzed using independent T-tests (Table). Relationships between the demographic variables of type of hospital employed,

years worked, and type of hospital unit being worked on, and the major study variables (structural empowerment, psychological empowerment, clinical nurse educator leadership, and work engagement) were analyzed using Pearson correlations (Table 5). Pearson correlations were computed to analyze relationships among all main study variables and subscales.

Pearson correlations were then computed to test the first study hypothesis between the independent variable of structural empowerment and the dependent variable of psychological empowerment (Plitchta and Kelvin, 2013).

Pearson correlations were computed to test the second hypothesis between the independent variable of structural empowerment and dependent variable of work engagement.

Further, multiple regression analysis was used to assist in predicting relationships among the four variables of structural empowerment and new graduate nurses' psychological empowerment, new graduate nurses' work engagement, and clinical nurse educator leadership (Plitchta & Kelvin, 2013; Polit & Beck, 2012). A multiple regression analysis also helped to determine whether variation in structural empowerment is related to variation in psychological empowerment of new graduate nurses (Plitchta & Kelvin, 2013; Polit & Beck, 2012). Although the variable clinical nurse educator leadership could be experimentally manipulated and an experimental study could be performed, according to Polit and Beck (2012), clinical nurse educator leadership cannot be manipulated ethically, as it would be unethical to deliberately deprive a randomly assigned group of new graduate nurses access to clinical nurse educator leadership that might positively benefit their nursing practice in the acute care setting. A moderation analysis was used to test the third study hypothesis and establish whether the association between structural

empowerment and psychological empowerment was moderated by clinical nurse educator leadership using Hayes' (2019) PROCESS macro version 3 for moderation analysis in SPSS.

Pearson correlations were computed to test the fourth hypothesis between the independent variable of clinical nurse educator leadership and dependent variable psychological empowerment.

Pearson correlations were computed to test the fifth hypothesis between the independent variable of psychological empowerment and dependent variable of work engagement.

Pearson correlations were used to test the sixth hypothesis between the independent variables of new graduate nurses' perceptions of clinical nurse educator leadership, , and the dependent variable of work engagement.

For all analyses, the level of significance was set at $p < .05$. Internal consistency of each instrument and their subscales were calculated using Cronbach's alpha (Polit & Beck, 2012).

Results

Descriptive Results

The means, standard deviations, Cronbach alpha reliability coefficients for the major study variables and subscales, are shown in Table 3. Pearson correlations for the major study variables and subscales in Table 4. *Structural Empowerment*

In this study, new graduate nurses reported overall perceptions of *structural empowerment* as moderate, while their global empowerment scores were moderate as well. Each of the CWEQ-II subscales scores related to access to empowering structures were over the mid-point score range, suggesting that new graduate nurses believed they had a moderate level of access to *information*, *support*, *opportunity*, and *resources*.

Additionally, new graduate nurses reported that *access to opportunity* was the most

empowering part of their role. *Formal power* was perceived by new graduate nurses as

being present at a lower level. However, they regarded themselves as having a moderate

degree of *informal power.*

A reliability analysis was carried out in this study using the 19 individual items

within the CWEQ-II. Cronbach's alpha showed the tool to reach acceptable reliability,

$\langle = 0.88$, which is consistent with previously conducted studies. Cronbach alpha

reliabilities were produced for each of the 6 subscales of *Formal Power* $(\langle = 0.75)$,

Informal Power $(\langle = 0.74)$, *Opportunity* $(\langle = 0.83)$, *Information* $(\langle = 0.87)$, *Resources* $(\langle = 0.73)$, and *Support* $(\langle = 0.87)$, and a Cronbach alpha reliability for *Global Empowerment*

$\langle = 0.85$. *Psychological Empowerment*

In this study, new graduate nurses reported overall perceptions of *psychological*

empowerment as moderate. Each of the Psychological Empowerment Scale subscales

scores that measure the four components of the psychological empowerment construct

were computed; *meaning*, *competence*, *impact*, and *self-determination*. New graduate

nurses perceived the most psychologically empowering component was that they

perceived their work to be *meaningful*. However, they reported that the least

psychologically empowerment component was impact, implying that they do not

perceive to make as great of an influence to important outcomes within the organization.

The remaining subscales of *competence* and *self-determination* were reported as

moderate.

A reliability analysis was carried out in this study using the 12 individual items

within the PES. Cronbach's alpha showed the tool to reach acceptable reliability, $\langle =$

0.86, which is consistent with previously conducted studies. Cronbach alpha reliabilities were produced for each of the 4 subscales of *Meaning* (⟨ = 0.92)*, Competence* (⟨ = 0.80)*, Impact* (⟨ = 0.81)*, and Self-Determination* (⟨ = 0.84).

Clinical Nurse Educator Leadership

According to Liden and Maslyn's (1998) *Leader-Member Exchange-Multidimensional Measure (LMX-MDM*) and taking into account that Babenko-Mould and Blair's (2017) Modified LMX-MDM (2017) *Clinical Nurse Educator Leader-Staff Nurse Exchange-Multidimensional Measure* is modified to reflect *clinical nurse educator leadership* instead of manager leadership, higher leadership scores represent stronger new graduate nurse perceptions of clinical nurse educators as leaders. In this study, new graduate nurses reported overall perceptions of *clinical nurse educator leadership* as moderate. Each of the Modified LMX-MDM subscale scores were computed; *affect, loyalty, contribution,* and *professional respect.* These subscales make up the components of perceived *clinical nurse educator leadership* were over the mid-point score range, suggesting that new graduate nurses believed the clinical nurse educators in their particular acute care organizations play a leadership role. *Professional respect* was the highest scoring subscale of *clinical nurse educator leadership,* implying that new graduate nurses respect and are impressed with their clinical nurse educators' job knowledge and that they admire their professionalism. However, *loyalty* was scored lowest, implying that new graduate nurses perceive that clinical nurse educators are less likely to come to their defence if a mistake was made, if they were being "attacked" by others, or defend their actions to a superior without complete knowledge of the situation. This may be because coming to the defence of an employee is not necessarily envisioned as part of the clinical nurse educator's role.

A reliability analysis was carried out in this study using the 12 individual items within the Modified LMX-MDM Cronbach's alpha showed the tool to reach acceptable reliability 0.93, which is consistent with previously conducted studies. Cronbach alpha reliabilities were produced for each of the four subscales of *Affect* (⟨ = 0.87)*, Loyalty* (⟨ = 0.83)*, Contribution* (⟨ = 0.65)*,* and *Professional Respect* (⟨ = 0.92)*.* In reviewing the individual items with *Contribution*, there were no items that would result in a decrease in alpha if deleted, and would not prove helpful in improving the subscale to a higher internal consistency. With this in mind, the researcher chose to keep the tool fully intact, and note this observation.

Work Engagement

New graduate nurses reported overall perceptions of *work engagement* as moderate. Each of the UWES-17 subscales related to components of work engagement were over the mid-point score range suggesting that new graduate nurses perceived themselves as having moderate levels of *vigor, dedication, and absorption* working in the acute care setting. Additionally, new graduate nurses reported that *dedication* to their work, feeling enthusiastic, proud of their job, and feeling inspired and challenged by it, to be the most significant indicator of *work engagement*. *Vigor* was reported to be the second highest indicator of *work engagement* among new graduates, suggesting that new graduate nurses have moderate levels of energy and resilience, willingness to invest effort, are not easily fatigued, and persist in the face of difficulties encountered in the acute care setting. *Absorption* was the lowest indicator, suggesting that new graduate nurses have lower levels of feeling happily immersed in their work by comparison to reported levels of *vigor* and *dedication*.

A reliability analysis was carried out in this study using the 17 individual items

within the UWES-17. Cronbach's alpha showed the tool to reach acceptable reliability,

$\alpha = 0.88$, which is consistent with previously conducted studies. Cronbach alpha

reliabilities were produced for each of the three subscales of *Vigor* ($\alpha = 0.82$) *, Dedication*

($\alpha = 0.80$)*,* and *Absorption* ($\alpha = 0.57$)*.* In reviewing the individual items with *Absorption*,

item # 16 would result in an increase in alpha ($\alpha = 0.65$) if deleted. However, the item's

removal would not prove helpful in improving the subscale to a higher internal

consistency. With this in mind, the researcher chose to keep the tool fully intact, and note

this observation.

Table 3

Range, Means, Standard Deviations, and Cronbach Alpha Levels for All Study Variables

Variable	Range	Mean	SD	α
Total Structural Empowerment	(6-30)	20.36	3.04	.88

Subscales:	Support	(1-5)	3.14	1.00	.87
	Opportunity	(1-5)	4.29	.70	.83
	Information	(1-5)	3.22	.80	.87
	Resources	(1-5)	3.15	.70	.73
	Informal Power	(1-5)	3.68	.70	.74
	Formal Power	(1-5)	2.88	.86	.75
Total Psychological Empowerment		(12-60)	44.02	5.97	.86
Subscales:	Meaning	(1-5)	4.55	.58	.92
	Competence	(1-5)	3.78	.63	.80
	Impact	(1-5)	2.55	.81	.81
	Self-Determination	(1-5)	3.80	.72	.84
Total Work Engagement		(0-6)	4.18	.70	.88
Subscales:	Vigor	(0-6)	4.02	.90	.82
	Absorption	(0-6)	3.85	.75	.57
	Dedication	(0-6)	4.76	.79	.80
Total Clinical Nurse Educator Leadership		(12-84)	59.42	13.46	.93
Subscales:	Loyalty	(1-7)	4.50	1.35	.83
	Affect	(1-7)	5.08	1.33	.87
	Contribution	(1-7)	4.85	1.11	.65
	Professional Respect	(1-7)	5.43	1.40	.92

Note: From "Conditions for work effectiveness questionnaire I and II" by H. Laschinger, 2001. Copyright by Laschinger 2001. From "Psychological empowerment in the workplace" by G. Spreitzer, 1995. Copyright by Spreitzer, 1995. From "Utrecht work engagement scale" by W. Schaufeli & A. Bakker, 2003. Copyright by Schaufeli & Bakker, 2003. From "Multidimensionality of leader-member exchange: An empirical assessment through scale development" by R. Liden & J. Maslyn, 1998. Copyright by Liden & Maslyn, 1998.

The data quality was evaluated by assessing study variable scores for normality, skewness, and kurtosis using frequency tables (Munro, 2005). All overall scores for each of the study variables of structural empowerment, psychological empowerment, work engagement, and clinical nurse educator leadership were normally distributed. Distribution of the variables is summarized in Table 4.

Table 4

Summary of Distribution of Variables

Variable	Skewness	SE	Kurtosis	SE
Structural Empowerment	.25	.26	-.27	.52
Psychological Empowerment	-0.97	.26	-.67	.52
Clinical Nurse Educator Leadership	-.73	.26	.22	.52
Work Engagement	-.26	.26	-.08	.52

Relationship of Demographic Variables to Main Study Variables

There were no significant relationships found between age, gender, type of hospital employed (community, academic, or other), type of employment (permanent or temporary), years in profession, years worked in present facility, or type of unit worked on (medical, surgical, intensive care, obstetrics, pediatrics, operating room, post-anesthetic care, psychiatry, emergency, ambulatory care, or other) to any of the main study variables (structural empowerment, psychological empowerment, clinical nurse educator leadership, or work engagement). New graduate nurses' perceptions of clinical nurse educator leadership was found to be significantly positively correlated to current employment status including full-time (55.4%) and part-time (44.6%) ($r= .014$, $p<0.05$). Work engagement was found to be significantly positively correlated to years worked in profession ($r=.207$, $p<0.05$), but significantly negatively correlated to years worked on current unit ($r= -.226$, $p<0.05$).

Correlation Analysis

Pearson correlations for the main study variables and subscales are noted in Table 5. Structural empowerment was significantly correlated with psychological empowerment ($r=.419$), clinical nurse educator leadership ($r=.348$), and work engagement ($r=.420$), all of which are consistent with previous research involving the study of leadership (LMX) theory, work engagement, and psychological empowerment.

Psychological empowerment, in addition to structural empowerment, was significantly

correlated with clinical nurse educator leadership (r=.274) and work engagement

(r=.530). Clinical nurse educator leadership, in addition to structural and psychological

empowerment, was significantly correlated to work engagement (r=.212). As stated

above, work engagement was significantly correlated with all major study variables.

Table 5

Pearson's Correlations for All Major Study Variables and Subscales

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1. Total Structural Empowerment																					
2. Support	**.757** (.000)																				
3. Opportunity	**.318** (.002)	-.074 (.253)																			
4. Information	**.668** (.000)	**.492** (.000)	.047 (.336)																		
5. Resources	**.568** (.000)	**.372** (.000)	.022 (.422)	**.224*** (.021)																	
6. Informal Power	**.694** (.000)	**.462** (.000)	.157 (.078)	**.339** (.001)	**.259** (.009)																
7. Formal Power	**.749** (.000)	**.433** (.000)	**.211*** (.028)	**.364** (.000)	**.328** (.001)	**.446** (.000)															
8. Psychological Empowerment	**.419** (.000)	**.417** (.000)	-.001 (.497)	**.311** (.002)	.164 (.069)	**.438** (.000)	**.217*** (.049)														
9. Meaning	.136 (.111)	.051 (.323)	**.298** (.003)	.097 (.193)	-.032 (.386)	.079 (.240)	.051 (.324)	**.606** (.000)													
10. Competence	.197 (.037)	**.253*** (.010)	-.134 (.113)	**.262*** (.008)	.051 (.323)	**.282** (.005)	-.004 (.486)	**.698** (.000)	**.313** (.002)												
11. Impact	**.469** (.000)	**.511** (.000)	-.021 (.426)	**.286** (.004)	**.299** (.003)	**.402** (.000)	**.243*** (.013)	**.768** (.000)	**.262** (.008)	**.316** (.002)											
12. Self-Determination	**.349** (.001)	**.317** (.002)	-.101 (.181)	**.230*** (.018)	.099 (.188)	**.448** (.000)	**.288** (.004)	**.800** (.000)	**.301** (.003)	**.448** (.000)	**.510** (.000)										
13. Total Work Engagement	**.420** (.000)	**.418** (.000)	.062 (.287)	**.347** (.001)	.086 (.218)	**.227*** (.020)	**.370** (.000)	**.530** (.000)	**.387** (.000)	**.322** (.002)	**.384** (.000)	**.440** (.000)									
14. Vigor	**.412** (.000)	**.449** (.000)	-.107 (.169)	**.383** (.000)	.133 (.115)	**.296** (.003)	**.314** (.002)	**.559** (.000)	.262 (.008)	**.395** (.000)	**.388** (.000)	**.551** (.000)	**.891** (.000)								
15. Absorption	**.343** (.001)	**.300** (.003)	.128 (.125)	**.286** (.004)	.054 (.312)	.090 (.209)	**.376** (.000)	**.320** (.002)	**.220*** (.023)	**.186*** (.046)	**.270** (.007)	**.239*** (.015)	**.825** (.000)	**.579** (.000)							
16. Dedication	**.301** (.003)	**.291** (.004)	.186 (.046)	**.188*** (.044)	.014 (.449)	.170 (.062)	**.248*** (.012)	**.456** (.000)	**.546** (.000)	**.209*** (.029)	**.308** (.002)	**.288** (.004)	**.828** (.000)	**.634** (.000)	**.532** (.000)						
17. Clinical Nurse Educator Leadership	**.348** (.001)	**.529** (.000)	-.169 (.064)	.104 (.175)	**.266** (.008)	**.196*** (.038)	**.277** (.006)	**.274** (.006)	-.024 (.414)	.085 (.221)	**.421** (.000)	**.228*** (.019)	**.212*** (.027)	**.197*** (.037)	.170 (.063)	.169 (.063)					
18. Loyalty	**.351** (.001)	**.506** (.000)	**-.228*** (.019)	.109 (.164)	**.329** (.001)	**.273** (.006)	**.244*** (.013)	**.230*** (.018)	-.044 (.348)	.008 (.470)	**.411** (.000)	**.202*** (.034)	.119 (.142)	.130 (.121)	.037 (.369)	.135 (.111)	**.868** (.000)				
19. Affect	**.245*** (.013)	**.420** (.000)	-.163 (.071)	.068 (.269)	.143 (.098)	.153 (.084)	**.205*** (.032)	**.248*** (.012)	.007 (.476)	.095 (.197)	**.356** (.000)	**.196*** (.038)	.175 (.057)	.163 (.071)	.147 (.093)	.133 (.116)	**.920** (.000)	**.765** (.000)			
20. Contribution	**.272*** (.06)	**.419** (.000)	-.112 (.156)	.059 (.299)	.157 (.078)	.178 (.053)	**.234*** (.017)	278** (.005)	.068 (.271)	.072 (.260)	**.357** (.000)	**.249*** (.012)	**.222*** (.022)	**.209*** (.029)	.157 (.078)	**.198*** (.000)	**.785** (.000)	**.600** (.000)	**.661** (.000)		
21. Professional Respect	**.349** (.001)	**.481** (.000)	-.047 (.335)	.145 (.095)	**.269*** (.007)	.113 (.155)	**.264*** (.008)	**.239*** (.015)	-.073 (.256)	.113 (.154)	**.372** (.000)	.202 (.033)	**.221*** (.22)	**.191*** (.042)	**.223*** (.021)	.145 (.096)	**.843** (.000)	**.619** (.000)	**.727** (.000)	**.512** (.000)	

*p<0.05, one-tailed **p<0.01, one-tail

Test of Hypotheses

Pearson correlation analysis was conducted to examine the relationships among the four study variables including their subscales as shown in Table 4. and to test five of the six study hypotheses.

The first hypothesis stated that there would be a significant positive correlation ($p < 0.05$) between structural empowerment and new graduate nurses' psychological empowerment in acute care settings. This hypothesis was supported by a significant positive correlation ($p < 0.01$)

The second hypothesis proposed that there would be a significant positive correlation ($p < 0.05$) between structural empowerment and new graduate nurses' work engagement in acute care settings. This hypothesis was supported by significant positive correlations ($r = .420, p < .01$).

The third hypothesis tested whether the relationship between structural empowerment and psychological empowerment was moderated by new graduate nurses' perceptions of clinical nurse educator leadership in acute care settings. A moderator variable is a qualitative (e.g. sex, race, class) or quantitative (e.g. level of reward) variable that affects the direction and/or strength of the relation between an independent or predictor and a dependent or criterion variable (Baron & Kenny, 1986). In testing for moderation, an analysis was undertaken to examine how the independent variable is influenced by the moderator variable, ultimately influencing the strength of the dependent variable, instead of proposing that a direct causal relationship exists between the independent and dependent variable (Baron & Kenny, 1986). In this study, the variable of new graduate nurses' perceptions of clinical nurse educator leadership was proposed to impact the relationship between new graduate nurses' structural empowerment and

psychological empowerment. To analyze for a potential moderating relationship, a two-step approach was used (Baron & Kenny, 1986). First, multiple regression analyses were entered in two models based on theoretical consideration. As structural empowerment is known to be a predictor of psychological empowerment (Laschinger et al., 2001), structural empowerment was entered as the independent variable and psychological empowerment as the dependent variable in the first model. Hypothesizing that clinical nurse educator leadership will moderate this relationship, the second model included structural empowerment and clinical nurse educator leadership as the independent variables, with psychological empowerment as the dependent variable. Second, the SPSS Extension Kit PROCESS Version 3 by Andrew Hayes (2019), a logistical regression path analysis modeling tool, was used to analyze the three study variables for two and/or three way conditional interactions in moderation models to definitively assess for whether or not moderation was taking place (Baron & Kenny, 1986).

Multiple regression provided support for the hypothesized model (see Table 6). Variables were entered in models based on theoretical consideration. Structural empowerment was entered as the first model as a predictor of psychological empowerment, and accounted for 17.6% of the variance in new graduate nurses' psychological empowerment, and a significant relationship was found between these two variables ($p = .000$). The second model included the addition of new graduate nurses' perceptions of clinical nurse educator leadership as a predictor of psychological empowerment. This second model accounted for 19.4% of the variance in new graduate nurses' psychological empowerment. Structural empowerment was found to be a significant predictor of psychological empowerment ($p=.001$). However, new graduate nurses' perception of clinical nurse educator leadership was not found to be a significant

predictor of psychological empowerment (p=.177). Based on this second model, there was no moderation effect in this model.

Table 6

Multiple Regression Analysis

		R^2	ΔR^2	SE	t	*Sig.*
Model 1	Structural Empowerment	.176	.166	5.46	4.16	.000
Model 2	Structural Empowerment	.194	.174	5.43	3.44	.001
	Clinical Nurse Educator				1.36	.177
	Leadership					

Dependent variable: Psychological Empowerment

The SPSS Extension Kit PROCESS Version 3 by Andrew Hayes (2019), a logistical regression path analysis modeling tool, was used to analyze the three study variables for two and/or three-way conditional interactions in moderation models to definitively assess for moderation (Baron & Kenny, 1986). The two models were entered to determine definitively whether clinical nurse educator leadership moderates the relationship between structural empowerment and psychological empowerment. Upon analysis, it was found that new graduate nurses' perceptions of clinical nurse educator leadership was not a significant predictor of psychological empowerment, (p=.889) concluding that new graduate nurses' perceptions of clinical nurse educator leadership did not moderate the relationship between new graduate nurses' structural empowerment and psychological empowerment.

The fourth hypothesis stated that there would be a significant positive correlation (p< 0.05) between new graduate nurses' perceptions of clinical nurse educator leadership and new graduate nurses' psychological empowerment in acute care settings. This hypothesis was supported by significant positive correlations (r = .274, p = .006).

The fifth hypothesis stated that there would be a significant positive correlation ($p< 0.05$) between new graduate nurses' psychological empowerment and new graduate nurses' work engagement. This hypothesis was supported by significant positive correlations ($r = .530, p = .000$).

The sixth hypothesis stated that there would be a significant positive correlation between new graduate nurses' perceptions of clinical nurse educator leadership and new graduate nurses' work engagement. This hypothesis was supported by significant positive correlations ($r = .212, p = .027$).

Discussion

The purpose of this study was to examine relationships and gain further knowledge about new graduate nurses' perceptions of acute care clinical nurse educator leadership, structural empowerment, psychological empowerment, and work engagement in acute care settings.

Structural Empowerment

The results, with respect to structural empowerment in acute care settings, are consistent with what has been reported in previous research about empowerment in relation to new graduate nurses and staff nurses from various units in acute care practice settings (Laschinger et al., 2001; Laschinger et al., 2009; Laschinger et al., 2014). In this study, new graduate nurses reported overall perceptions of *structural empowerment* as moderate (M=20.36, SD=3.04). It is not surprising that structurally empowering work conditions are important for this group and highlights the importance of ensuring that these empowering structures are available to these less experienced, and typically younger nurses. New graduate nurses face significant professional adjustments entering the workforce. Their age and limited practice experience provides them with fewer

personal resources for dealing with challenges in the practice environment, making structural factors important to their professional development. There were no reported demographic variables that influenced the overall score of structural empowerment. Each of the CWEQ-II subscale scores related to access to empowering structures were over the mid-point score range, suggesting that new graduate nurses believed they had a moderate level of access to *information*, *support*, *opportunity*, and *resources*, and *informal power.* Structural empowerment was positively correlated with all other major study variables. Further, hypothesis four, which proposed that structural empowerment would be positively related to new graduate nurses' psychological empowerment (Figure 1), and hypothesis two, which proposed that structural empowerment will be positively related to new graduate nurses' work engagement (Figure 2) were fully supported. This is consistent with previously established literature (Laschinger et al., 2001; Smith, Andrusyzyn, & Laschinger, 2010; Wing, Regan, & Laschinger, 2015), and adds and expands the knowledge and evidence about this study population in relation to the study variables.

In particular, new graduate nurses rated that *access to opportunity* (M=4.29) was the most empowering part of their role, which has been previously reported in the literature (Smith et al., 2010; Wing et al., 2015). New graduate nurses encounter a variety of new experiences early in their careers, so it is not surprising that these new graduate nurses felt empowered by opportunities to gain new skills and experiences. Smith et al., (2010) add that new graduate nurses often receive a great deal of orientation, preceptorship and the chance to gain new skills as they begin their careers. Gaining knowledge and experience through new opportunities may allow new graduate nurses to build clinical competence and confidence in their professional practice.

In contrast, new graduate nurses rated that *access to support* (M=3.14), although recognized as moderate, was the least empowering factor experienced in their role. New graduate nurses value support through regular feedback and clinical guidance from experienced nurses (Lavoie-Tremblay et al., 2008). New graduate nurses may rely on experienced nurses for support in acclimating and socializing to their unit and organization, and for support in clinical decision making as they encounter new situations in their professional careers (Wing et al., 2015). Clinical nurse educators in acute care organizations are often nurses with more experience and/or education (i.e. graduate education, clinical certifications) than that of the new graduate nurse, and are often considered the clinical and professional practice expert to the clinical area they provide educational support. Therefore, it is important that the clinical nurse educator recognize the role they play in providing the new graduate nurse access to support through the provision of formal or informal mentorship or activities, that enhance learning and professional development relevant to the clinical area (Wing et al., 2015).

In this study with new graduate nurses, *formal power* (M=2.88) was perceived as being present at a lower level. This has been similarly reported in the literature about the new graduate nurse population (Laschinger et al., 2006; Laschinger, 2008; Smith et al., 2010). This is unfortunate and concerning given the need for novice employees to feel valued and central to the organization, as literature has noted that the transition from student to professional status has been linked with low self-esteem and decreased confidence (Ross & Clifford, 2002). Decreased perceptions of this source of power may be reflected in new graduate nurses' entry position within the health care system's bureaucratic structure (Cho et al., 2006) and within the profession (Wing et al., 2015). In general, it may be difficult to increase formal power in the new graduate nurse population

as formal power often requires a certain degree of expertise, and increasing this source of power in the newly-graduate nurse may be premature (Smith, et al., 2010). Clinical nurse educators need to recognize that although there may be barriers to improving new graduate nurses' perceived formal power, they play a key role as nursing leaders. It is important that they recognize that it is within their scope to encourage of inter-departmental and interprofessional collaboration and committee participation as a means to increase visibility and involvement in achieving organizational goals (Wing et al., 2015).

Psychological Empowerment

The results, with respect to psychological empowerment in acute care settings, are consistent with what has been reported in previous research about empowerment and new graduate nurses (Laschinger et al., 2001). In this study, new graduate nurses reported overall perceptions of *psychological empowerment* as moderate (M=44.02). Each of the psychological empowerment subscale scores related to psychologically empowering structures were over the mid-point score range, suggesting that new graduate nurses perceived themselves as experiencing a moderate level of *meaning*, *competence*, *impact*, and *self-determination*.

Psychological empowerment was found to be significantly correlated to structural empowerment (*r*=.419, *p*=0.05), suggesting that access to information, support, opportunities, and resources are fundamental to their sense of meaning, competence, self-determination, and impact. Given the correlations between structural empowerment on new graduate nurses perceived level of psychological empowerment, it is important for clinical nurse educators to use their position of leadership to help sustain these levels of psychological empowerment by valuing new graduate nurses' ideas and contributions to

patient care, and providing positive feedback and recognition to efforts made within the clinical practice setting and organization.

Hypothesis five which proposed that psychological empowerment would be positively related to new graduate nurses' work engagement (Figure 9), was fully supported. This is consistent with previously established literature about clinical nurses (DiNapoli et al., 2016) and adds to the research evidence about new graduate nurses and the main study variables of psychological empowerment and work engagement.

In this study, new graduate nurses scored the psychological empowerment subscale of *meaning* the highest (M=4.55), which is consistent with previous research about psychological empowerment and new graduate nurses (Smith et al., 2010). According to Spreitzer (1995), *meaning* is the congruence between job requirements and an employee's beliefs, values, and behaviours. The elements that make up meaning include that the work a nurse does is very important to them personally, that their job activities are personally meaningful, and that the work they do is meaningful to them. Meaning was also significantly correlated to the structural empowerment subscale of access to opportunity. With clinical nurse educators often as the first point of contact to an organization, they work to provide orientation and ongoing education and opportunities for the new graduate nurse to learn and grow. During orientation and their first years of practice, new graduate nurses are exposed to a variety of new skills and broaden their knowledge base, often being taught and provided such opportunities through the clinical nurse educator. Clinical nurse educators need to understand that the provision of these opportunities may add significant value and meaning to the new graduate nurse's roles and responsibilities within the organization. In this study, new graduate nurses rated the psychological empowerment subscale

of *impact* as moderate as it scored above the mid-range, but it ranked the lowest

(M=2.55) of the subscales, which is a common theme in the literature related to new

graduate nurses (Laschinger et al., 2001, Smith et al., 2010). *Impact* refers to the degree

to which an individual can influence strategic, administrative or operating outcomes at

work (Connolly, Jacobs, & Scott, 2018). The elements that make up impact include

having a great deal of control and significant influence over what happens in the

workplace. This score implies that this sample of new graduate nurses feel their work is

significant and makes a positive impact. However, since it did score the lowest of the

subscales, it's important to place focus on initiatives that would promote new graduate

nurses' perceived sense of impact so that their overall perceived psychological

empowerment may be increased, and that they don't experience burnout and decreased

work engagement (Asiri et al., 2016). Aiken, Havens, and Sloane (2000) demonstrated

through research about 'magnet' hospitals with a culture that support unit-based decision-

making are more likely to provide superior patient care. The quality of patient care is

directly affected by the degree to which hospital nurses are active and empowered

participants in making decisions about their patient's plan of care and by the degree to

which they have an active voice and presence in organizational decision making

(Armstrong & Laschinger, 2006). The siloed nature of clinical units in acute care

hospitals may lend to new graduate nurses feel they have a measured impact in their

department or organization (Aiken et al., 2000). In their professional tenure, new

graduate nurses may not have been provided consistent or relevant opportunities where

they feel they are able to make an impact organizationally. It is important that clinical

nurse educators promote inter-department collaboration to create organizational cultures

in which new graduate nurses are psychologically empowered and where they feel they

can make an impact on their unit or organization (Armstrong & Laschinger, 2006).

Clinical nurse educators should work to provide and share opportunities to new graduate

nurses where they can be professionally engaged and feel they make an impact. Clinical

nurse educators should work to collaborate with one another in acute care organizations

and develop and share educational opportunities with their staff that will be relevant to

multiple practice areas, facilitating inter-department collaboration. Clinical nurse

educators can also promote new graduate nurse involvement in professional practice

projects that will have the ability to impact staff and promote positive change to a clinical

unit or organization. Ongoing, positive feedback and recognition provided by the clinical

nurse educator to the new graduate nurse will help facilitate impact by promoting

visibility of their work (Smith et al., 2010).

Clinical Nurse Educator Leadership

The results, with respect to new graduate nurses' perceptions of clinical nurse

educator leadership in acute care settings, are the first to be considered in this manner

with this population. In this study, new graduate nurses reported overall perceptions of

clinical nurse educator leadership as moderate (M=59.42). Each of the Modified LMX-

LDM subscales scores related to clinical nurse educator leadership were over the mid-

point score range. This would suggest that new graduate nurses perceived to feel a

moderate level of *loyalty, affect, contribution, and professional respect* towards their

clinical nurse educators.

New graduate nurses' perceptions of clinical nurse educator leadership was

positively correlated with all major study variables, which is consistent with research

related to LMX quality and nursing, and the variables of structural and psychological

empowerment (Laschinger, Finegan, & Wilk, 2009), and leadership and work

engagement (Laschinger et al., 2007; Matthews et al., (2018). Further, hypothesis four

that predicted clinical nurse educator leadership would be positively related to

psychological empowerment (Figure 4) and hypothesis six that proposed that clinical

nurse educator leadership would be positively related to work engagement (Figure 6)

were fully supported. Laschinger et al. (2009) reported that LMX quality and unit-level

structural empowerment positively influenced staff nurses' feelings of psychological

empowerment. This highlights the importance of clinical nurse educator leadership in

helping to create empowering work conditions on their units that can influence individual

nurses' responses and psychological empowerment with the workplace and, ultimately,

their commitment and work engagement in their organization. It must be noted that

hypothesis three which stated that clinical nurse educator leadership would moderate the

relationship between structural empowerment and psychological empowerment among

new graduate nurses in acute care settings was not supported (Figure 3). Although there

were significant positive correlations noted between clinical nurse educator leadership,

structural empowerment, and psychological empowerment, these findings indicate that

new graduate nurses are not solely dependent on clinical educator leadership to be

structurally and psychologically empowered. As far as is known, this is the first study

that explores the relationship amongst clinical nurse educator leadership and the variables

of structural empowerment, psychological empowerment, and work engagement in

respect to new graduate nurses, thus broadening our understanding of the role of clinical

nurse educators as leaders in nursing.

In this study, new graduate nurses scored the subscale of *professional respect* the

highest (M=5.43). Professional respect refers to the degree that each individual

recognizes and admires the others' work-related competency and knowledge (Rodwell,

McWilliams, & Gulyas, 2016). It can be suggested that based on the study respondent's rating *professional respect* the highest dimension of LMX, that new graduate nurses have a high level of respect for their clinical nurse educators as leaders. This may be due in part because of the onboarding and orientation process for new graduate nurses to their clinical units. Clinical nurse educators often provide onboarding education, which is often tailored to include specialized skills the new graduate will require in order to be successful on their clinical unit. These findings are important to the role of the clinical nurse educator as the LMX dimension of professional respect contains elements of personal liking based on work-related attributes and reputation, which are important and beneficial to new graduate nurse engagement (Rodwell et al., 2016).

In this study, new graduate nurses scored the subscale of *loyalty* the lowest (M=4.50). Loyalty refers to an individual's perception of their direct supervisor coming to the defence or standing up for the subordinate (Liden & Maslyn, 1998). Leader-Member Exchange theory posits that the four dimensions of LMX may differentially explain subordinate attitudes and behaviours depending on the context and the job. For example, working professionals with higher certifications and qualifications may be more interested in exchanges that promote their career advancement such as taking on new and challenging projects that demonstrate their competence. On the other hand, lower credentialed employees may be interested in exchanges that are focused on how their managers, or those in leadership positions treat them as an employee and may be more particularly influenced by the socio-emotional dimensions of LMX of loyalty and affect (Matthews et al., 2018). As new graduate nurses, as defined in this study as having three years or less work experience as a registered nurse, are newer to the workforce and may have fewer additional certifications or qualifications than their more experienced

colleagues. This population may be more focused on whether they believe their clinical nurse educator is looking out for their best interests, and comes to their defense with other employees or those in leadership roles who may be more highly educated and skilled in their positions (Matthews et al., 2018). It could be posited that new graduate nurses have a decreased sense of loyalty towards their clinical nurse educator. This could be explained by the new graduate nurses' tenure within the organization or unit, and the length of the relationship to their clinical nurse educator. As our healthcare system in Ontario becomes more strained and resources being stretched, clinical nurse educators often do not have the opportunity to be as present and available to front-line staff, and are often involved in corporate projects outside of their designated unit, making them less visible and available to front-line staff. New graduate nurses may not have had the time invested with their clinical nurse educator to develop a relationship that increases the dimension of loyalty. This is a valuable finding for clinical nurse educators, as Matthews et al. (2018) found that loyalty was significantly related to respondent turnover, and that individuals who felt that their supervisor was loyal to them were significantly more likely to stay within the organization, resulting in decreased turnover rates. Without sufficient opportunities to interact where there is a sharing of ideas, open communication, and a reciprocation of effort and support, the relationships among new graduate nurses and clinical nurse educators may be jeopardized (Laschinger et al., 2007). Matthews et al., (2018) suggest that leaders and organizations need to do a better job at developing soft skills such as communication modalities. Hess et al. (2010) suggest that leaders engage in coaching behaviours such as positivity and reaffirming, providing candid feedback, praise, and recognition as leaders are more likely to be seen as loyal and supportive advocates. These are especially important to the new graduate nurse who values

recognition for their work (Wan et al., 2017).

In this study, only one demographic variable was found to influence the overall scores for clinical nurse educator leadership. Current employment status (full-time, part-time, or casual) was found to be significantly positively correlated to clinical nurse educator leadership (r= .014, p<0.05). In Ontario, registered nurses in acute care hospitals subscribe to the Ontario Nurse's Association (ONA) union. Although the availability of full-time employment versus part-time or casual employment will vary between organizations, the ability to secure full-time employment often depends on an employee's seniority within the organization, which is often related to their years of employment within the organization. It can be posited that full-time employees are often older in age and/or have more experience as they have accrued more hours toward seniority. More experienced nurses who have longer tenure in the profession, may have had more time and greater opportunity to interact and observe their clinical nurse educators as leaders in the organization.

Work Engagement

The results, with respect to work engagement in acute care settings, are consistent with what has been reported in previous research about work engagement in relation to new graduate nurses (Laschinger et al., 2009). In this study, new graduate nurses reported overall perceptions of *work engagement* as moderate (M=4.18). Each of the UWES-17 subscales scores related to work engagement were over the mid-point score range, suggesting that new graduate nurses believed they had a moderate level of access to *dedication*, *vigor, and dedication.* Work engagement was found to be significantly correlated to structural empowerment (r=.420, p=0.05), suggesting that access to information, support, opportunities, and resources are fundamental to their work

experience. Given the correlations between structural empowerment on new graduate nurses level of work engagement, it is important for clinical nurse educators to use their position of leadership to help sustain these levels of engagement by valuing new graduate nurses' ideas and contributions to patient care, and to not dismiss their ideas based on their relative lack of experience in the profession.

In this study, new graduate nurses reported overall perceptions of *work engagement* as moderate (M=4.18). In the subscales of the UWES, new graduate nurses scored highest on the *dedication* subscale (M=4.76), followed by *vigor* (M=4.02), and lastly by *absorption* (M=3.85).

In this study, new graduate nurses scored the subscale of *dedication* the highest (M=4.76). According to Schaufeli and Bakker (2004), dedication refers to being strongly involved in one's work and experiencing a sense of significance, enthusiasm, inspiration, pride, and challenge. This higher score may be supported by career development theory (CDT), that posits that employees less than 25 years of age, an age category that is typically inclusive of new graduate nurses, are in the exploring age of career development with a need to accumulate greater experience. New graduate nurses need to accumulate greater experience and may in turn consider themselves more dedicated to their work in order to accumulate this level of experience. New graduate nurses also value recognition for their work and that they like to feel they are progressing rapidly towards self-established performance goals (Wan et al., 2017). Clinical nurse educators and nurse leaders need to explore strategies to amplify new graduate nurses' dedication, such as inclusion and engagement through clinical unit councils and unit improvement strategies and provide avenues for new graduate nurses to develop their existing skills while providing opportunities for career development and advancement.

In this study, new graduate nurses scored the subscale of *absorption* the lowest (M=3.85). According to Schaufeli and Bakker (2004), those who score higher in absorption feel engrossed or immersed in their work and have difficulty detaching from it. This lower score could reflect the unexpected and busy nature of the acute care setting, an increasing workload and patient acuity among the healthcare system in general, and new graduate nurses' experience in caring for this increasing workload (Scaccia, 2019). Clinical nurse educators and nurse leaders need to explore strategies that can keep new graduate nurses engaged despite their intense workload.

There are few demographic variables that may influence the overall scores for work engagement, whether it be positively or negatively. For example, work engagement was found to be significantly positively correlated to years worked in profession ($r=.207$, $p<0.05$). According to Havens, Warshawsky, and Vasey (2013), new graduate nurses, who are typically younger, are more technically savvy, and need to be engaged early to prevent turnover and boredom. Therefore, clinical nurse educators must use specific strategies when working with new graduate nurses by establishing relationships that make younger staff believe their thoughts and ideas are important. Laschinger et al. (2009), in a study comparing new graduate nurses (less than 2 years nursing experience) and experienced nurses (greater than 2 years nursing experience) work effectiveness, found that the mediation effect of work engagement is an important mechanism through which empowering work conditions can lead to greater feelings of work effectiveness. When nurses have the tools they need to practice professionally, they experience greater vigor to engage with their patients, are more proud of the care they provide, and report greater absorption with their interactions with patients and colleagues (Laschinger et al., 2009). It is reasonable to speculate that the positive correlation of work engagement to

years worked in the profession, that these same mechanisms will be strengthened in the new graduate population as they gain more experience in the profession.

Work engagement was found to be significantly negatively correlated to years worked on current unit ($r= -.226$, $p<0.05$), which is consistent with reports generated by Havens et al. (2013), who found that the longer nurses practiced in their current clinical units, the less engaged they were. This may suggest that after time nurses become less engaged, which may be reflected in the fact that at current new graduate nurses are considered Millennials, and require early engagement to prevent turnover and boredom (Havens et al., 2013). Havens et al. (2013) recommend exploring practice models which do not 'tie' nurses to clinical units, new models and opportunities for advancement and innovative roles. These creative solutions may help to motivate nurses, while developing talent in a particular field. Clipper (2012) further suggests that promoting flexibility may help to alleviate new graduate nurses' boredom, which may in turn increase work engagement. Clinical nurse educators in their roles as educational advocates can look to develop and implement formal mentorship and internship programs, where new graduate nurses can practice and develop new skills that would expand their current knowledge base, promoting engagement in the workplace setting. Clinical nurse educators can promote innovative roles by advocating new graduate nurse involvement in clinical unit-based councils and improvement strategies (Havens et al., 2013).

Limitations

This study design does not support causal inferences and since the sample was gained from nurses who consented to distributing their contact information for research purposes, there might be a potential for bias, as these nurses may be more interested in sharing their perspectives over others who do not wish to be involved in research (Polit &

Beck, 2017). Potential participants may have been excluded from the study because they did not complete their CNO registration form or refused to release their contact information for research purposes. The nurses in this study were employed in acute care settings, therefore precluding generalizability of results to nurses employed in other settings. The nurses were new graduate nurses with equal to or less than two years' experience, also precluding generalizability to other experience levels and length of time as practicing registered nurses. There may also be potential for response bias, resulting from the use of self-report surveys (Polit & Beck, 2012). The most frequent problem with response bias is the tendency for respondents to portray themselves in a more favourable light (Polit & Beck, 2012). However, the use of structural empowerment theory, psychological empowerment theory, leader-member exchange theory, and work engagement theory as a guide for this study's propositions builds a strong theoretical basis for this study, which may address some of the limitations.

Implications and Recommendations

The implications for nursing practice begin with the impact that structural empowerment has on new graduate nurses, and the role the clinical nurse educator leader fulfills to support structurally empowering conditions. While the study identifies area for improvement, given moderate perceived levels of structural empowerment, it does suggest that there are positive elements related to structural empowerment within new graduate nurses and acute care organizations. The higher a new graduate nurse's perceptions of empowerment are, the more positive views they will possess about their contributions and their role within the workplace (Laschinger et al., 2001), and the more psychologically empowered and engaged they will be in the workplace (Laschinger et al., 2001; Schaufeli & Bakker, 2003). As such, the lower a new graduate nurse's perceptions

of empowerment, the less effective they feel in the workplace (Laschinger et al., 2001),
and will consequently feel less psychologically empowered and engaged within the
workplace (Laschinger et al., 2001; Schaufeli & Bakker, 2003).

The implications of this study suggest a need for an increased focus on
organizational elements that will enhance structural empowerment, psychological
empowerment, and work engagement among new graduate nurses. Approaches that are
suggested in the literature involve focused efforts to enhance structurally empowering
conditions that can be promoted by clinical nurse educators. Such efforts include
improving access to educational opportunities and supports through organized
professional development (Wing et al., 2015). To improve new graduate nurse
psychological empowerment, clinical nurse educators can encourage the involvement of
activities that promote meaning and impact within the organization (Manojlovich &
Laschinger, 2002; Stewart et al., 2010). Clinical nurse educators should portray
professional characteristics within the dyadic leader-member relationship between new
graduate nurses (Adelmann-Mullaly et al., 2013), as well as develop loyalty to the new
graduate nurse (Matthews et al., 2018). Lastly, clinical nurse educators should promote
activities that inspire dedication (Havens et al., 2013), and should work to collaboratively
implement strategies to allow new graduate nurses to feel absorbed in their work duties
(Schaufeli & Bakker, 2003). A detailed discussion of the implications for nursing
practice, education, and research is included in part three of this manuscript.

Conclusions

This study provides support for the study results associating new graduate nurses'
perceptions of clinical nurse educators as leaders in association with new graduate
nurses' perceptions of their own structural and psychological empowerment, as well as

work engagement, and is the first known study to explore the variable of clinical nurse educator leadership in the context of new graduate nurses in acute care settings. These relationships may suggest that clinical nurse educators who are able to develop a dyadic relationship with new graduate nurses through the four LMX dimensions of contribution, affect, loyalty, and professional respect, may contribute to improved new graduate nurses' psychological empowerment and work engagement in acute care settings. The results also contributed further evidence to the positive correlations between structural empowerment, psychological empowerment, and work engagement among new graduate nurses working in acute care settings. The theoretical frameworks used in this study, Kanter (1977), Spreitzer (1995), Graen and Uhl-Bien (1995), and Schaufeli and Bakker (2003) may be applied in acute care organizations to develop and evaluate clinical nurse educators as leaders in nursing in order to further cultivate work engagement amongst new graduate nurses, which may in turn decrease job turnover intentions and improve retention in nursing.

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CHAPTER THREE

IMPLICATIONS AND RECOMMENDATIONS

The aim of the study was to examine the relationships amongst structural empowerment, psychological empowerment, perceived clinical nurse educator leadership, and work engagement in a sample of new graduate nurses in Ontario, Canada. Results demonstrated that significant positive correlations were found among all major study variables with this sample of new graduate nurses. Although clinical nurse educator leadership did not moderate the relationship between new graduate nurses' structural empowerment and psychological empowerment, the positive correlations among the variables suggest that clinical nurse educators who develop a professional relationship with new graduate nurses may contribute to improved psychological empowerment and work engagement. These findings support clinical nurse educator leadership in nursing, suggesting that the presence of clinical nurse educators as leaders may be influential in facilitating work environments in which new graduate nurses are empowered, engaged, and retained.

Nursing is a dynamic and challenging profession requiring engaging and inspiring role models and leaders (Scully, 2015). Empowering leaders in nursing are essential to support future nurses and the future of the profession, as these leaders have the ability to influence the nursing work environment through their actions and behaviours (Scully, 2015). The implications of these findings for nursing practice, and education are explored in this chapter. Further, recommendations for future research about structural empowerment, psychological empowerment, clinical nurse educator leadership, and work engagement are outlined.

Implications for Nursing Practice

Structural Empowerment

The study results showed a moderate level of structural empowerment among new graduate nurses. These results are consistent with other studies that have examined structural empowerment within new graduate nursing populations (Laschinger et al., 2001; Laschinger et al., 2009; Laschinger et al., 2014). Upon further examination, access to opportunity was rated as the highest dimension of structural empowerment. This dimension looks at access to opportunity that new graduate nurses have in regards to growth, mobility and the chance to increase their knowledge and skills. This highly rated dimension of access to opportunity may be related to the extensive level of orientation and preceptorship that accompanies a successful new graduate nurses' transition to practice (Smith et al., 2010), and they may perceive themselves as empowered as they are given the opportunity to gain new skills and experiences perhaps not explored or practiced during undergraduate studies. The implications of new graduate nurses having increased opportunity in the acute care setting means that new graduate nurses have the opportunity to gain and build upon clinical competence and self-confidence in their professional practice, which may in turn promote engagement and reduce turnover intention in the workplace. It is crucial for nursing leaders in clinical practice such as clinical nurse educators and nursing managers to understand how access to opportunity impacts new graduate nurses' overall perceived structural empowerment, and to seek and provide opportunities that new graduate nurses can take advantage to foster this dimension. Nursing leadership should look to develop and/or promote educational opportunities within the organization or through other organizations (i.e. conferences, courses, certifications) where new graduate nurses can increase their knowledge or the

development of specific skills that will benefit and add value to their professional

practice. As more nurses across Ontario are entering the workforce with a university

education, increased access to opportunities for professional development and graduate

study may increase in value for this cohort of employees. Clinical nurse educators should

advocate for new graduates to nursing management to be flexible in such academic

pursuits. This may be an ask from management to allow for flexible scheduling and an

outreach from staff for possible funding sources. Along with management, clinical

educators should advertise funding resources outside of the workplace such as through

the Registered Nurses Association of Ontario or Ministry of Health funded programs,

such as the Critical Care Nurse Training Fund. This in mind, allowing new graduate

nurses the opportunity to advance their academic knowledge while maintaining their

employment status presents an ideal situation where individuals are provided the freedom

for academic advancement while enhancing their commitment to an organization that

sees value in their academic pursuit.

Access to support, although rated as moderate, was the lowest rated dimension

among the constructs of structural empowerment, which is consistent with some literature

about structural empowerment and new graduate nurses (Lavoie-Tremblay et al., 2008a;

Lavoie-Tremblay et al., 2008b; Wing et al., 2015). In this study, access to support refers

to guidance and feedback received from subordinates, peers, and supervisors to enhance

effectiveness (Kanter, 1993). New graduate nurses in their transition to professional

nursing practice rely heavily on their experienced colleagues when they encounter new or

difficult situations (Wing et al., 2015). The implications regarding the need for enhanced

access to support is often reflected in new graduate nurses' turnover intentions (Lavoie-

Tremblay et al., 2008a), higher levels of reported psychological distress (Lavoie-

Tremblay et al., 2008b), and feelings of inadequacy (Duchscher, 2008), ultimately

contributing to an increase in mental health symptoms (Wing et al., 2015). This leaves

new graduate nurses feeling as though they are not performing their nursing

responsibilities as effectively as possible, which could decrease their perceptions of

empowerment in their workplace, specifically related to accessing support. The current

generation of nurses need to feel as though they belong as effective members of their

workplace. Wing et al. (2015) recommend that clinical nurse educators and other levels

of nursing leadership increase new graduate nurse perceptions of support through

opportunities that assist new graduate nurse learning and professional development. This

can be achieved through formal education programs and experienced colleagues willing

and able to provide guidance and support as new graduate nurses' nursing knowledge and

skills mature (Wing et al., 2015). In Ontario, there are initiatives in place such as the New

Graduate Guarantee (Health Force Ontario, 2008) that offer full-time support to new

graduate nurses for a specified period of time, albeit these opportunities are not as

popular within acute care organizations as they were in the programs infancy. Many acute

care settings have developed organization-specific mentorship opportunities.

Unfortunately, the complexity of the current health care system often negates existing

staff from providing new graduate nurses with the support they likely desire. However,

these mentorship programs allow new graduate nurses access to formal support during

their transition into the workplace and have been associated with fewer negative mental

health outcomes and lower turnover intentions (Romyn et al., 2009). Clinical nurse

educators, as advocates for employee education and support, should work with nursing

administrators to develop and implement such programs to help improve this facet of

structural empowerment among new graduate nurses.

Formal power was another moderately rated, albeit lower rated dimension of structural empowerment than access to opportunity, which is consistent with literature about structural empowerment and new graduate nurses (Laschinger et al., 2006; Laschinger, 2008; Smith et al., 2010). In this study, formal power results from jobs that promote visibility, support discretion, offer recognition and contribute to key organizational objectives (Kanter, 1977, 1993). The implications of a perceived need for enhanced level of formal power have been linked to lower self-esteem and decreased confidence (Ross & Clifford, 2002). It may be difficult to increase formal power in the new graduate nurse population as formal power often requires a certain degree of expertise (Smith et al., 2010). Wing et al. (2015) recommend that in order to enhance formal power among new graduate nurses, clinical nurse educators and other levels of nursing leadership enhance access to empowering work structures through the encouragement of interprofessional and interdepartmental collaboration and committee participation. In a time of critical nursing shortages, this may be one strategy that can help promote perceptions of formal power by increasing visibility and involvement in achieving organizational goals, and to new graduate nurses feeling more relevant in the practice setting. In turn, this may increase new graduate nurses' perceived informal power by building upon new graduate nurses' communication, collaboration and networking skills within the organization (Wing et al., 2015). It may also allow new graduate nurses to feel more committed to the profession as a whole and to their specific acute care organization.

Psychological Empowerment

The study results showed a moderate level of psychological empowerment among new graduate nurses, which is a common theme among nursing populations (Singh et al.,

2014), and those specific to new graduate nurses (Laschinger et al., 2001, Smith et al., 2010). These results are consistent with other studies that have examined psychological empowerment within new graduate nursing populations (Smith et al., 2010). Of the psychological empowerment subscales, respondents scored highest on meaning, which refers to the congruence between job requirements and an employee's beliefs, values, and behaviours (Spreitzer, 1995). The questionnaire items within Spreitzer's (1995) Psychological Empowerment Scale include that make up meaning include 1) The work I do is very important to me, 2) My job activities are personally meaningful to me, and 3) The work I do is meaningful to me. This high level of meaning implies that new graduate nurses have a strong personal connection to the job they do. This is likely reflective of the nursing background that new graduate nurses bring to the current model of patient care. Caring about patients contributes to the meaning of their work, and ultimately assists in improving new graduate nurses' job satisfaction. Having high perceptions of meaning in their work, and in the outcomes from providing patient care energizes new graduate nurses to do their best (Stewart et al., 2010). The subscale of meaning was significantly correlated to the structural empowerment subscale of access to opportunity. As discussed above, it is imperative that clinical nurse educators as leaders and nursing managers understand how access to opportunity impacts new graduate nurses' overall perceived structural and psychological empowerment, with specific relation to perceived meaning. For instance, educational opportunities to improve professional knowledge and skills would further add value and meaning to the roles and responsibilities performed as part of their job within the organization.

In this study, impact was perceived as at a moderate level, but was the lowest rated subscale of psychological empowerment, which is consistent with some literature

about psychological empowerment and nursing (Singh et al., 2010) and psychological

empowerment and new graduate nurses (Smith et al., 2010). *Impact* refers to is a sense of

being able to influence important strategic, administrative, or operating outcomes within

the organization (Connolly, Jacobs, & Scott, 2018; Spreitzer, 1995; Laschinger et al.,

2001). In addition, the subscale of impact was significantly correlated with all structural

empowerment subscales, with the exception of access to information. This would suggest

that when structurally empowering elements are fostered in the workplace, it is more

likely that new graduate nurses will believe that they have an impact in the workplace

(Manojlovich & Laschinger, 2002). These individuals see themselves as active

participants having control over change (Spreitzer, 1995). The implications of perceived

lower levels of impact among the new graduate nursing population have been linked to

lowered levels of workplace motivation (Asiri et al., 2016; Connolly et al., 2018).,

burnout, decreased work engagement, apathy, and an imbalance of rewards versus returns

(Asiri et al., 2016). This can leave new graduate nurses feeling as though their work,

voice, and presence is not seen by the organization as adding significant value, which

could decrease their perceptions of empowerment in their workplace.

The current generation of nurses need to feel as though they are contributing in a

valuable way to the acute care organization, which can be difficult due to the typically

isolated nature of clinical units within acute care organizations (Aiken, Havens & Sloane,

2000). Clinical nurse educators and other levels of nursing leadership need to recognize

that silos and professional territoriality in health care systems must be removed, or that

organizations require increased inter-department collaboration to create organizational

cultures in which new graduate nurses are psychologically empowered and where they

feel they can make an impact on their unit or organization (Armstrong & Laschinger,

2006). Clinical nurse educators should work to provide and share opportunities amongst other clinical nurse educators and to new graduate nurses where they can be professionally engaged and feel they make an impact. Spreitzer (1995) suggests that methods of increasing impact are related to growing in new ways of thinking and working. This involves some sense of vulnerability and risk-taking, but one can make significant impact within the work environment and professionally by undertaking new initiatives (Stewart et al.2010). Clinical nurse educators and other nursing leaders need to be understanding of this risk-taking and vulnerability and use their position within the organization to support new graduate nurses if and when they choose to take on these initiatives to promote confidence and reduce perceived vulnerability. In addition, it is suggested that clinical nurse educators and nursing leaders make strong efforts to provide ongoing feedback, positive reinforcement, praise for achievements, and recognize the contributions of new graduate nurses within their institutions, thereby promoting visibility of their work. Their clinical expertise could be highlighted during informal rounds, in organizational or unit-level newsletters, monthly awards, staff recognition boards, or notes of appreciation. As the complexity of the clinical nurse educator role may preclude them from providing such feedback in-the-moment or on a regular basis, clinical nurse educators should work to employ strategies where senior staff provide ongoing feedback to new graduate nurses. Clinical nurse educators and other nursing leaders need to enhance empowering work conditions within acute care organizations so that new graduate nurses are able to believe that their efforts make an impact within the organization (Manojlovich & Laschinger, 2002; Stewart et al., 2010). This is especially important as previous studies have shown that increasing new graduate nurses' sense of impact can enhance retention (Smith et al., 2010).

Clinical Nurse Educator Leadership

The study results showed new graduate nurses reported overall perceptions of clinical nurse educator leadership as moderate. The results, with respect to clinical nurse educator leadership in acute care settings, are the first known study results with respect to new graduate nurses. Of the clinical nurse educator leadership subscales, respondents rates professional respect highest, which refers to the degree that each individual recognizes and admires the others' work-related competency and knowledge (Rodwell, McWilliams, & Gulyas, 2016). The implications of new graduate nurses having increased professional respect for their clinical nurse educator aids in fostering positive relationships with them, therefore new graduate nurses are more likely to feel that their work environments empower them to accomplish their work in meaningful ways (Laschinger et al., 2007). This may subsequently allow new graduate nurses to experience feelings of psychological empowerment and as a result, new graduate nurses may experience improved job satisfaction (Laschinger et al., 2007). As new graduate nurses enter the acute care workforce, often one of their first professional nursing encounters is with their unit-designated clinical nurse educator, as they are heavily involved in the onboarding and orientation process for new graduate nurses to their clinical units. Clinical nurse educators often personally provide this onboarding education, and this education is often tailored to include specialized skills the new graduate will require in order to be successful on their clinical unit. According to LMX theory, relationships are built over time through positive exchanges which produce loyalty, mutual respect, and high performance (Schaufeli & Bakker, 2004). Adelmann-Mullaly et al. (2013) suggest that clinical nurse educators need to exhibit positive and professional behaviours from the onset of the new graduate nurse relationship, which

include role-modeling, shared vision, communicating professional values of evidence-based practice, self-reflection, and lifelong learning. By portraying these professional characteristics, clinical nurse educators need may develop and influence positive LMX relationships so that new graduate nurses feel safe enough to test their own thinking and skills in the clinical setting. There is an ongoing need for clinical nurse educators to continue fostering these positive LMX relationships, which is a challenge in the current acute care nursing work environment where large spans of control, work pressures, and constant restructuring serve as significant barriers to the development of high-quality relationships. Clinical nurse educators need to take advantage of opportunities to interact with new graduate nurses in forums where sharing of ideas, open communication, and a reciprocation of effort and support, so that relationships between themselves and new graduate nurses are not jeopardized by competing priorities (Laschinger et al., 2007). In this study, *loyalty* was the lowest rated subscale of LMX, and refers to an individual's perception of their leader coming to the defence or standing up for a staff member (Liden & Maslyn, 1998). The implications of new graduate nurses having moderate levels of loyalty towards their clinical nurse educator in the acute care setting may in turn affect their perception of access to supports and resource, ultimately influencing and decreasing their perceived structural empowerment. As the healthcare system in Ontario becomes more strained and resources become increasingly stretched, clinical nurse educators often do not have the opportunity to be as present and available to front-line staff, and may often become involved in corporate projects outside of their designated unit. This gives new graduate nurses the impression that their clinical nurse educators are less visible and available to them as front-line staff. New graduate nurses may not have had the opportunity to invest shared time with their clinical nurse educator in order to develop a

relationship that increases the dimension of loyalty. This is a valuable finding for clinical nurse educators as Matthews et al., (2018) suggests that leaders and organizations need to do a better job at developing soft skills such as communication modalities. Hess et al. (2010) suggest that leaders engage in coaching behaviours such as positivity and reaffirming, providing candid feedback, praise, and recognition as leaders are more likely to be seen as loyal and supportive advocates. These are especially important to the new graduate nurse who values recognition for their work (Wan et al., 2017).

Work Engagement

The study results showed overall perceptions of new graduate nurses' work engagement as moderate, which are consistent with other studies that have examined work engagement within new graduate nursing populations (Laschinger et al., 2009). Of the work engagement subscales, respondents scored highest on dedication, which refers to being strongly involved in one's work and experiencing a sense of significance, enthusiasm, inspiration, pride, and challenge (Schaufeli and Bakker, 2004). The implications of new graduate nurses having increased dedication in the acute care setting may influence and improve their work performance, job satisfaction, and intention to remain in the institution (Garcia-Sierra et al., 2016). This highly rated dimension of dedication may be related to the majority age range of this study population, where 78% of respondents reported being between the ages of 20-29. Career development theory (CDT) may help to explain this study's reported dedication results, where employees who are 25 years or less in age are in an exploration period of their career and feel a need to accumulate greater experience. New graduate nurses beginning their careers are exposed to different situations and skills that they may not have experienced in their undergraduate studies. Additionally, the current new graduate nurse cohort between the

ages of 20-29 are considered Millennials, a group that is technologically savvy but requires early engagement to prevent boredom and turnover (Clipper, 2012). Therefore, nurse leaders must use specific tactics when working with new graduate nurses by establishing relationships that make younger staff believe their thoughts and ideas are important. This generational cohort also values teams and wish to make a difference. Clinical nurse educators and nurse leaders would be wise to explore strategies to amplify new graduate nurses' dedication. Havens et al. (2013) suggest involving new graduate nurses in clinical unit-based councils, improvement strategies, and special projects that use their talents, and savviness towards technology, which may help to fulfill their civic-minded desires and contribute to increased dedication within the organization. These strategies may help to provide avenues for new graduate nurses to develop their existing skills while providing opportunities for career development and advancement.

In this study, new graduate nurses scored the work engagement subscale of *absorption* the lowest. Absorption is characterized by being fully concentrated and happily engrossed in one's work, whereby time passes quickly and one has difficulties with detaching oneself from work (Schaufeli & Bakker, 2001). The implications of new graduate nurses having decreased absorption in the acute care setting may result in a lack of focus and motivation, which has the potential to result in poorer patient outcomes and an unmotivated workforce and poor work culture (Tomietto et al., 2015). Clinical nurse educators and other nursing leaders need to understand that an 'absorbed' workforce helps to improve unit motivation and is an important factor to improve ongoing clinical knowledge uptake and ongoing learning to remain focused on nursing care. Tomietto et al. (2015) suggest that a positive work-team attitude can help new graduate nurses focus on and deepen their professional knowledge, skills, and work experience. This lower

subscale score may additionally reflect the unexpected and busy nature of the acute care setting, an increasing workload and patient acuity among the healthcare system in general, and experience level in caring for this increasing workload (Scaccia, 2019). Clinical nurse educators and nursing leaders need to explore strategies that can help keep new graduate nurses engaged despite their intense workload. Nurse leaders may want to consider implementation strategies that focus on groups as providing a supportive culture and effective coordination of tasks that allows teams to draw on resources they require to feel more engaged (Schaufeli & Bakker, 2003). A positive unit culture can increase staff resilience and work engagement in the face of the daily clinical unit-level stressors (Scaccia, 2019).

Implications for Nursing Education

Findings from this study are important for nursing baccalaureate program administrators and educators, as they are the first formal nursing leaders to which nursing students are introduced. Academic nurse educators can help nursing students develop and enlist strategies to identify structurally empowering elements and to seek these elements in future practice settings that can enhance personal psychological empowerment, which will ultimately aid in influencing their degree of work engagement within the practice setting. Academic nurse educators should also encourage nursing students to reflect on research published to date that links an organization's structural work conditions and how this may impact their personal psychological empowerment. This will help new graduate nurses upon entrance to the workplace differentiate between positive and negatively empowering work conditions, allowing them to make informed decisions about their intent to engage within that acute care organization (Stewart et al., 2010).

Although the variable of clinical nurse educator leadership was explored in this

study, leadership in nursing is a priority at all levels of the profession, including not only

formal leadership roles, but also the informal leadership of nurses at the bedside

(Canadian Nurses Association, 2009). Undergraduate nurses and new graduate nurses are

the future of the profession, and developing strong nursing leaders of the future begins in

how nurses are educated. It is reasonable to assume that many new graduate nurses will

assume not only informal nursing leadership positions such as role models or staff

preceptors, but also formal leadership positions such as clinical nurse specialists, unit

resource nurses, educators, and managers. Therefore, the concept of nursing leadership

needs to be integrated early in undergraduate curriculum, and should be strongly

integrated into graduate curriculum as many graduate nursing programs focus on career

advancement and development following undergraduate studies. Activities and

discussions should focus on leader behaviour and actions, identification of personal and

professional values, and relationship building be facilitated early in their professional

nursing careers (Middleton, 2013). Simulation activities in small group settings are

encouraged as they may allow for evaluation and feedback, allowing students to gain

self-awareness of intrinsic leadership behaviours and may help to identify areas for

improvement. Developing personal leadership qualities not only personally benefits the

nursing student and new graduate nurse, but will also allow them to observe and identify

leadership qualities in others, inclusive of their clinical nurse educators and other formal

nursing leaders in acute care settings. This may ultimately assist in cultivating

dimensions of the LMX relationship between the new graduate nurse and the clinical

nurse educator if there is a shared professional respect of leadership behaviours

developed between both parties.

Recommendations for Future Research

Initially, it would be beneficial to expand and replicate this study with a greater number

of new graduate nurses from Canada to gain a better understanding of the role that

provincial context and practice setting may have in relation to the study results. Such a

study could also examine various nursing settings where clinical nurse educators may be

employed. This study examined only acute care organizations, but it may be beneficial to

include settings such as community care organizations, or rural health centres where new

graduate nurses are likely to seek employment. This will allow for the development

of a greater understanding of what aspects of structural empowerment help to determine

new graduate nurse psychological empowerment and work engagement and how this can

impact new graduate nurses within a variety of practice environments. Potential results

from such a study could help to advance and change practice as it may help to inform and

develop a more comprehensive understanding of the clinical nurse educator and their role

as leaders. These insights may help to define how the clinical nurse educator can best

support new graduate nurses in their transition to the practice environment, regardless of

their specific practice organization or location. Such a study may also help to inform a

standard of how to engage new graduate nurses, so that clinical educators themselves feel

supported by evidence in their educational practices of the new graduate nurse.

A qualitative study could be conducted to understand more about how new

graduate nurses perceive their clinical nurse educators as leaders within the acute care

setting. As discussed previously, new graduate nurses reported that clinical nurse

educator loyalty was the lowest-reported dimension of LMX in comparison to the other

dimensions of affect, contribution, and professional respect. Gaining insights as to

perceptions of what characteristics, actions, or behaviours demonstrated by clinical nurse

educators contribute to a perceived level of loyalty and explanations to these perceptions, could be meaningful in carrying out other quantitative studies that can examine these issues on a larger scale. The results could support the creation of new policies and strategies within clinical practice settings that provide high standards of support to new graduate nurses and to clinical nurse educators, to better facilitate the dyadic relationship between leader and member. For example, separate policies could be developed specifically to new graduate nurses and clinical nurse educators respectively. These policies could focus on mentorship and strategies to ensure complete and comprehensive orientation where both groups successfully transition to each of their roles. By developing qualitative questions that explore experiences of how new graduate nurses perceive their clinical nurse educators as leaders, a better understanding of how new graduate nurses perceive leadership attributes to aid or impede their overall structural empowerment, psychological empowerment, and work engagement could be gained. Currently a paucity of literature exists that comprehensively describes the role of the clinical nurse educator as they may have different job titles, job descriptions, roles, and responsibilities that vary across organizations. A qualitative study could be conducted amongst individuals who classify themselves as Clinical Educators with the College of Nurses of Ontario or other professional regulatory provincial or territorial nursing body, that examines the characteristics, role, and job description as described by clinical nurse educators themselves, and specifically how they perceive themselves as leaders. This could help provide a more thorough understanding of the role clinical nurse educators play as leaders within the current healthcare setting, and how they vary or share similarities among the different healthcare settings. By developing qualitative questions that explore experiences of clinical nurse educators as leaders, a better understanding of

their leadership role could be gained.

Conclusion

This chapter provided readers with implications and recommendations regarding new graduate nurses' empowerment and work engagement through dimensions of structural empowerment, psychological empowerment, and clinical nurse educator leadership. Supporting new graduate nurses' access to opportunity and support were discussed as means to improve overall structural empowerment. Further, facilitating strategies that enhance new graduate nurses' perceived impact within the workplace is a necessary component of improving their overall psychological empowerment. Strategies to provide a supportive work culture and increase staff resilience were identified as a way of enhancing new graduate absorption, thereby facilitating work engagement. Fostering clinical nurse educator leadership through the LMX qualities of loyalty and professional respect were identified as means of improving the relationship between them as leaders and new graduate nurses as followers. Through analysis of these theories, connections were made between new graduate nurses' structural empowerment, psychological empowerment, work engagement, and the variable of clinical nurse educator leadership. Through engaging in further research that supports the understanding of new graduate nurses' structural empowerment, psychological empowerment, and work engagement and the involvement of the clinical nurse educator, academic nurse educators and researchers can discover new tools and strategies to enhance the new graduate nurses' empowerment, engagement, to retain a vital workforce within the nursing profession.

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APPENDICES

APPENDIX A

Study Instruments

A. 01   Conditions of Work Effectiveness Questionnaire-II (CWEQ-II)

A. 02   Psychological Empowerment Scale (PES)

A. 03   Modified LMX-MDM Clinical Nurse Educator

             Leader-Staff Nurse Exchange – Multidimensional

             Measure

A. 04   Utrecht Work Engagement Scale-17 (UWES-17)

A. 05   Demographic Questionnaire

A. 01
Laschinger's (2001) Conditions of Work Effectiveness Questionnaire-II (CWEQ-II)
CWEQ-II-OPPORTUNITY
HOW MUCH OF EACH KIND OF OPPORTUNITY DO YOU HAVE IN YOUR PRESENT JOB?

	None		Some		A Lot
1. Challenging work	1	2	3	4	5
2. The chance to gain new skills and knowledge on the job.	1	2	3	4	5
3. Tasks that use all of your own skills and knowledge.	1	2	3	4	5

CWEQ-II-INFORMATION
HOW MUCH ACCESS TO INFORMATION DO YOU HAVE IN YOUR PRESENT JOB?

	No Knowledge		Some Knowledge		Know A Lot
1. The current state of the hospital.	1	2	3	4	5
2. The values of top management.	1	2	3	4	5
3. The goals of top management.	1	2	3	4	5

CWEQ-II-SUPPORT
HOW MUCH ACCESS TO SUPPORT DO YOU HAVE IN YOUR PRESENT JOB?

	None		Some		A Lot
1. Specific information about things you do well.	1	2	3	4	5
2. Specific comments about things you could improve.	1	2	3	4	5
3. Helpful hints or problem solving advice.	1	2	3	4	5

CWEQ-II-RESOURCES
HOW MUCH ACCESS TO RESOURCES DO YOU HAVE IN YOUR PRESENT JOB?

	None		Some		A Lot
1. Time available to do necessary paperwork.	1	2	3	4	5
2. Time available to accomplish job requirements.	1	2	3	4	5
3. Acquiring temporary help when needed.	1	2	3	4	5

JAS-II
IN MY WORK SETTING/JOB:

	None				A Lot
1. The rewards for innovation on the job are	1	2	3	4	5
2. The amount of flexibility in my job is	1	2	3	4	5
3. The amount of visibility of my work-related activities within the institution is	1	2	3	4	5

ORS-II
HOW MUCH OPPORTUNITY DO YOU HAVE FOR THESE ACTIVITIES IN YOUR PRESENT JOB?

	None				A Lot
1. Collaborating on patient care with physicians.	1	2	3	4	5
2. Being sought out by peers for help with problems	1	2	3	4	5
3. Being sought out by managers for help with problems	1	2	3	4	5
4. Seeking out ideas from professionals other than physicians, e.g., Physiotherapists, Occupational Therapists, Dieticians.	1	2	3	4	5

GLOBAL EMPOWERMENT

	Strongly Disagree				Strongly Agree
1. Overall, my current work environment empowers me to accomplish my work in an effective manner	1	2	3	4	5
2. Overall, I consider my workplace to be an empowering environment.	1	2	3	4	5

A. 02

Spreitzer's (1995) Psychological Empowerment Questionnaire

Please use the following rating scale to indicate the extent to which you agree with the following statements:	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The work I do is very important to me.	1	2	3	4	5
My job activities are personally meaningful to me.	1	2	3	4	5
The work I do is meaningful to me.	1	2	3	4	5
I am confident about my ability to do my job.	1	2	3	4	5
I am self-assured about my capabilities to perform my work activities.	1	2	3	4	5
I have mastered the skills necessary for my job.	1	2	3	4	5
I have significant autonomy in determining how I do my job.	1	2	3	4	5
I can decide on my own how to go about doing my work.	1	2	3	4	5
I have considerable opportunity for independence and freedom in how I do my job.	1	2	3	4	5
My impact on what happens in my department is large.	1	2	3	4	5
I have a great deal of control over what happens in my department.	1	2	3	4	5
I have significant influence over what happens in my department.	1	2	3	4	5

A. 03

Schaufeli & Bakker's (2003) Utrecht Work Engagement Scale-17 (UWES-17)

The following 17 statements are about how you feel at work. Please read each statement carefully and decide if you ever feel this way about your job. If you have never had this feeling, circle the "0" (zero) after the statement. If you have had this feeling, indicate how often you felt it by circling the number (from 1 to 6) that best describes how frequently you feel that way.

Never	Almost Never	Rarely	Sometimes	Often	Very Often	Always
0	1	2	3	4	5	6
Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

1. At my work, I feel bursting with energy. (VI1)   0   1   2   3   4   5   6
2. I find the work that I do full of meaning and purpose (DE1)   0   1   2   3   4   5   6
3. Times flies when I am working. (AB1)   0   1   2   3   4   5   6
4. At my job, I feel strong and vigorous. (VI2)   0   1   2   3   4   5   6
5. When I am working, I forget everything else around me. (AB2)   0   1   2   3   4   5   6
6. My job inspires me. (DE3)   0   1   2   3   4   5   6
7. When I get up in the morning, I feel like going to work. (VI3)   0   1   2   3   4   5   6
8. I feel happy when I am working intensely. (AB3)   0   1   2   3   4   5   6
9. I am proud of the work that I do. (DE4)   0   1   2   3   4   5   6
10. I am immersed in my work. (AB4)   0   1   2   3   4   5   6
11. I can continue working for very long periods of time (VI4)   0   1   2   3   4   5   6
12. To me, my job is challenging. (DE5)   0   1   2   3   4   5   6
13. I get carried away when I am working. (AB5)   0   1   2   3   4   5   6
14. At my job, I am very resilient, mentally. (VI5)   0   1   2   3   4   5   6
15. It is difficult to detach myself from my job. (AB6)   0   1   2   3   4   5   6
16. At my work, I always persevere, when things do not go well. (VI6)   0   1   2   3   4   5   6

A, 04

**A Modified LMX-MDM (2017) Clinical Nurse Educator Leader-Staff Nurse
Exchange-Multidimensional Measure:
An Adaptation of Liden & Maslyn's (1998) Leader-Member Exchange-
Multidimensional Measure (LMX-MDM)**

In the following set of questions, think of the clinical nurse educator assigned to your specific care unit. Please select your response from the 7 presented below and enter the corresponding number in the space to the left of the question.

Strongly Disagree	Disagree	Slightly Disagree	Neither Disagree Nor Agree	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

___ 1. I respect my clinical nurse educator's knowledge of and competence on the job.

___ 2. My clinical nurse educator would defend me to others in the organization if I   made an honest mistake.

___ 3. My clinical nurse educator is the kind of person one would like to have as a friend.

___ 4. I do not mind working my hardest for my clinical nurse educator.

___ 5. My clinical nurse educator would come to my defense if I were "attacked" by others.

___6. I like my clinical nurse educator very much as a person.

___ 7. I do work for my clinical nurse educator that goes beyond what is specified in my job description.

___ 8. I admire my clinical nurse educator's professional skills.

___ 9. My clinical nurse educator defends (would defend) my work actions to a superior, even without complete knowledge of the issue in question.

___ 10. My clinical nurse educator is a lot of fun to work with.

___ 11. I am willing to apply extra efforts, beyond those normally required, to meet my clinical nurse educator's work goals.

___ 12. I am impressed with my clinical nurse educator's knowledge of his/her job.

A. 05
Demographic Questionnaire

Please tell us something about yourself and the characteristics of your work setting.

1. Gender:
   - ☐　　Female
   - ☐　　Male

2. Age: _____ years

3. Highest Level of Education:
   - ☐　　College Diploma
   - ☐　　Bachelor's Degree
   - ☐　　Master's Degree
   - ☐　　Doctorate

4. Type of hospital where you are employed:
   - ☐　　Teaching (Academic)
   - ☐　　Community

5. What is your current employment status at this hospital?
   - ☐　　Full Time
   - ☐　　Part Time
   - ☐　　Casual

6. Is your employment:
   - ☐　　Permanent
   - ☐　　Temporary

7. How many years have you worked
   - a. In your profession?　　　　_____ years _____months
   - b. In your present facility?　　_____ years _____months
   - c. On your current unit?　　　_____ years _____months

8. What type of unit do you work one? **Select the ONE unit where you work the MOST hours**

☐   Medical
☐   Surgical
☐   Intensive Care
☐   Obstetrics
☐   Pediatrics
☐   Operating Room
☐   Post-anesthetic Care
☐   Psychiatry
☐   Emergency
☐   Ambulatory Care
☐   Other – Specify:_____

APPENDIX B

Ethics Approval

Western Research

Research Ethics

Western University Health Science Research Ethics Board
HSREB Delegated Initial Approval Notice

Principal Investigator: Dr. Yolanda Babenko-Mould
Department & Institution: Health Sciences\Nursing, Western University

Review Type: Delegated
HSREB File Number: 109724
Study Title: Examining the effects of structural empowerment, clinical nurse educator leadership, and psychological empowerment on new graduate nurses' work engagement in acute care settings in Ontario.

HSREB Initial Approval Date: January 31, 2018
HSREB Expiry Date: January 31, 2019

Documents Approved and/or Received for Information:

Document Name	Comments	Version Date
Revised Western University Protocol	Clean Copy	2018/01/29
Revised Letter of Information & Consent	Clean Copy	2018/01/29
Revised Letter of Information & Consent	Reminder Letter-Clean Copy	2018/01/29
Other	Appendix J - Reference List	2017/08/25
Other	Appendix I - CNO Request for Home Mailing Addresses	2017/08/25
Other	Appendix H - CNO Data Request Form	2017/08/25
Instruments	Appendix E - Clinical Nurse Educator Leadership Instrument	2017/08/25
Instruments	Appendix F - Demographic Questionnaire	2017/08/25
Instruments	UWES-17-Clean Copy	2018/01/29
Instruments	PES-Clean Copy	2018/01/29
Instruments	Mofified LDM-LMX-Clean Copy	2018/01/29
Instruments	CWEQ-II-Clean Copy	2018/01/29

The Western University Health Science Research Ethics Board (HSREB) has reviewed and approved the above named study, as of the HSREB Initial Approval Date noted above.

HSREB approval for this study remains valid until the HSREB Expiry Date noted above, conditional to timely submission and acceptance of HSREB Continuing Ethics Review.

The Western University HSREB operates in compliance with the Tri-Council Policy Statement Ethical Conduct for Research Involving Humans (TCPS2), the International Conference on Harmonization of Technical Requirements for Registration of Pharmaceuticals for Human Use Guideline for Good Clinical Practice Practices (ICH E6 R1), the Ontario Personal Health Information Protection Act (PHIPA, 2004), Part 4 of the Natural Health Product Regulations, Health Canada Medical Device Regulations and Part C, Division 5, of the Food and Drug Regulations of Health Canada.

Members of the HSREB who are named as Investigators in research studies do not participate in discussions related to, nor vote on such studies when they are presented to the REB.

The HSREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000940.

Ethics Officer, on behalf of Dr. Marcelo Kremenchutzky, HSREB Vice Chair

EO: Erika Basile ___ Grace Kelly ___ Katelyn Harris___ Nicola Morphet ___ Karen Gopaul ___ Patricia Sargeant ___

APPENDIX C

Letters of Information

C. 01   Letter of Information

C.02   Reminder Letter of Information

C. 01

Survey Letter of Information for New Graduate Nurses in Acute Care

"Exploring the Relationships Among New Graduate Nurses' Structural Empowerment, Psychological Empowerment, Work Engagement, and Clinical Nurse Educator Leadership in Acute Care Settings"

Principle Investigator:
Yolanda Babenko-Mould, RN, PhD, Associate Professor, The University of Western Ontario

Graduate Student Researcher:
Carly Blair, RN, BScN, MScN Candidate, The University of Western Ontario

Invitation to Participate
I am inviting you to take part in my research study named above. This form provides information about the study. You do not have to take part in this study. Taking part is entirely voluntary (your choice). Myself, or a member of my research team will be available to answer any questions you have. You may decide not to take part or you may withdraw from the study at any time. This will not affect your employment status in any way.

Purpose of the Letter
The purpose of this letter is to provide you with information required for you to make an informed decision regarding participation in this study.

Purpose of the Study
The purpose of this study is to examine the relationship of structural empowerment on new graduate nurses' psychological empowerment and work engagement and the effect of clinical nurse educator leadership as a moderating variable to structural empowerment in acute care settings. Your participation in this study will be vital in allowing me to analyze how clinical nurse educator leadership and structural empowerment elements present in your acute care organization influence your psychological empowerment and work engagement as new graduate nurse working in an acute care organization.

Inclusion Criteria
Participants must meet inclusion criterion of being a registered staff nurse employed full-time or part-time in a direct care nursing position, have worked less than or equal to two years since graduating from a baccalaureate nursing program, are English language speaking, and are working in an acute care setting in large urban centres.

Exclusion Criteria
Managers, educators, and advance practice nurses will be excluded as participants from the study, as well as registered staff nurses working in small rural centres as

they are less exposed to more comprehensive nurse educator support and may not yield comprehensive data related to the study.

Study Procedures
In order to examine this topic, I have developed a survey that asks for your assessment of your perception of your organization, the clinical nurse educator leadership you receive as a new graduate nurse working in acute care, and how they influence your own psychological empowerment and work engagement in the acute care organization. Your name was randomly selected from a registry list of the College of Nurses of Ontario. Your participation in this research is entirely voluntary. The proposed project is a single-phased project lasting approximately 1 year consisting of a single comprehensive survey. **The survey consists of a comprehensive questionnaire assessing direct care nurses' interests in taking on leadership roles and factors influencing these career expectations. We will obtain a random sample of 200 nurses from the College of Nurses of Ontario. If you are not a direct care nurse, you should not participate in this study.**

What You Will Be Asked to Do
You will be asked to complete a survey, which should take approximately 30 minutes of your time. You may decide whether to complete the survey on your own time or at work. Survey questions may ask about your conception of the manager role, your experiences with succession planning, your current work environment, and perceptions about your supervisor. Once you have completed your survey, please place it in the self-addressed envelope provided and put it in the mail. All data will automatically be sent to the research site - the Nursing Research Unit at The University of Western Ontario. Only members of our research team will be able to access the data. All data will be stored in a locked cabinet in a secure room. Representatives of The University of Western Ontario Health Sciences Research Ethics Board may contact you or require access to your study-related records to monitor the conduct of the research.

Possible Risks and Harms to You if You Participate in the Study
There are no anticipated burdens, harms or potential harms for participation in this study. There is a chance that you may feel uncomfortable answering some questions about your workplace and feelings about the organization or coworkers. Care will be taken to ensure confidentiality of survey data and we will respect your privacy. Also, you will not have to answer any questions if you feel uncomfortable.

Possible Benefits to You if You Participate in the Study
Nurses will not be guaranteed any direct benefits as a result of their participation in this study. However, this study will provide insight into how acute care organizations and clinical nurse educators impact new graduate nurses' sense of psychological empowerment and their level of work engagement within the organization. This information can be used to improve the workplace and the role of the clinical nurse educator in such a way that new graduate nurses may feel more supported and satisfied with their role in the organization. As a result, this information can be used to inform policy, organizational initiatives, and develop

and improve the current role of clinical nurse educators as leaders in order to better support our new graduate nurses' working in acute care organizations.

Compensation

I have enclosed a $5 coupon redeemable at Tim Horton's as a small token of my appreciation for your contribution to the study. You may keep the enclosed $5 Tim Horton's card whether or not you choose to complete the survey.

Voluntary Participation and Withdrawing from the Study

Before deciding to participate, you should know that you do not have to take part in the study. Participation in this study is voluntary. You may refuse to participate, refuse to answer any questions or withdraw from the study at any time with no effect on your employment status. If, during the course of this study, new information becomes available that may relate to your willingness to continue to participate, this information will be provided to you by the investigator.

Costs Associated with the Study

Participation in this study will not result in any expenses to you.

Information About Study Results

If you would like a copy of the research results, please indicate so in the area provided on the survey. The results of the study may also be submitted for publication pending successful thesis defence.

Confidentiality and Privacy

For the surveys, no identifying information of participants will be linked to the data. Only grouped data will be reported during the dissemination of our findings. Individual responses will not be reported. If the results of the study are reported in a publication, this document will not contain any information that would identify you. Representatives of The University of Western Ontario Health Sciences Research Ethics Board may contact you or require access to your study-related records to monitor the conduct of the research. Each participant will be given a personal identification number (PIN) in order to link individual data across timeframes for the survey. The researcher will link study PINs to your name only for the purposes of distributing information letters and surveys to you. Data will be sent directly to Western with only the PIN as the identifier. All participant names and assigned PINs will be destroyed as soon as the data collection is complete. The survey distribution will consist of the survey as well as a reminder letter, and finally a second distribution of the survey asking non-respondents to complete the survey if they haven't yet done so.

Contacts for Study Questions or Problems

If you have any further questions about this study, please feel free to contact myself, Carly Blair at the contact below. I would very much appreciate your participation in this research project. I would very much appreciate your participation in this research project. If you choose to participate in the survey, please use the pre-addressed, stamped envelope enclosed to return your completed

written questionnaire to the research office. If you choose not to participate, please return the blank questionnaire, after which you will not be contacted further. Thank you very much for considering our request.

What are my research rights?
You indicate your voluntary agreement to participate by completing and returning this questionnaire. You do not waive any legal rights by signing the consent form. You will be given a copy of this letter of information and consent form once it has been signed. If you have any questions about your rights as a research participant or the conduct of the study, you may contact Dr. David Hill, Scientific Director, Lawson Health Research Institute, (519) 667-6649 or The Office of Research Ethics (519) 661-3036, email ethics@uwo.ca.

C. 02

Reminder Letter for New Graduate Nurses in Acute Care

"Exploring the Relationships Among New Graduate Nurses' Structural Empowerment, Psychological Empowerment, Work Engagement, and Clinical Nurse Educator Leadership in Acute Care Settings"

Principle Investigator:
Yolanda Babenko-Mould, RN, PhD, Associate Professor, The University of Western Ontario

Graduate Student Researcher:
Carly Blair, RN, BScN, MScN Candidate, The University of Western Ontario

Reminder of Invitation to Participate
Two weeks ago, you were randomly selected and invited to participate in the above named research study. You were mailed an instrument package including a letter of information, a consent form, and five questionnaires to complete and return with the return address envelope. Each study participant that was randomly selected to participate in the study was provided a confidential personal identifier to maintain accurate records of participant involvement. Each participant according to our records at the time of mailing was mailed a copy of this letter as a reminder for participation. As our records indicate that you have not returned these research study forms, you are therefore receiving this letter as a reminder of participation.

We would greatly appreciate your reading of the study information below and completing the instrument package that was initially mailed. Thank you for your valuable time and consideration.

Survey Letter of Information for New Graduate Nurses in Acute Care

"Exploring the Relationships Among New Graduate Nurses' Structural Empowerment, Psychological Empowerment, Work Engagement, and Clinical Nurse Educator Leadership in Acute Care Settings"

Principle Investigator:
Yolanda Babenko-Mould, RN, PhD, Associate Professor, The University of Western Ontario

Graduate Student Researcher:
Carly Blair, RN, BScN, MScN Candidate, The University of Western Ontario

Invitation to Participate
I am inviting you to take part in my research study named above. This form provides information about the study. You do not have to take part in this study. Taking part is entirely voluntary (your choice). A member of the research team will be available to answer any questions you have. You may decide not to take part or you may withdraw from the study at any time. This will not affect your employment status in any way.

Purpose of the Letter
The purpose of this letter is to provide you with information required for you to make an informed decision regarding participation in this study.

Purpose of the Study
The purpose of this study is to examine the relationship of structural empowerment on new graduate nurses' psychological empowerment and work engagement and the effect of clinical nurse educator leadership as a moderating variable to structural empowerment in acute care settings. Your participation in this study will be vital in allowing me to analyze how clinical nurse educator leadership and structural empowerment elements present in your acute care organization influence your psychological empowerment and work engagement as new graduate nurse working in an acute care organization.

Inclusion Criteria
Participants must meet inclusion criterion of being a registered staff nurse employed full-time or part-time in a direct care nursing position, have worked less than or equal to two years since graduating from a baccalaureate nursing program, are English language speaking, and are working in an acute care setting in large urban centres.

Exclusion Criteria
Managers, educators, and advance practice nurses will be excluded as participants from the study, as well as registered staff nurses working in small rural centres as they are less exposed to more comprehensive nurse educator support and may not yield comprehensive data related to the study.

Study Procedures
In order to examine this topic, I have developed a survey that asks for your assessment of your perception of your organization, the clinical nurse educator leadership you receive as a new graduate nurse working in acute care, and how they influence your own psychological empowerment and work engagement in the acute care organization. Your name was randomly selected from a registry list of the College of Nurses of Ontario. Your participation in this research is entirely voluntary. The proposed project is a single-phased project lasting approximately 1 year consisting of a single comprehensive survey. **The survey consists of a comprehensive questionnaire assessing direct care nurses' interests in taking on leadership roles and factors influencing these career expectations. We will obtain a random sample of 200 nurses from the College of Nurses of Ontario. If you are not a direct care nurse, you should not participate in this study.**

What You Will Be Asked to Do
You will be asked to complete a survey, which should take approximately 30 minutes of your time. You may decide whether to complete the survey on your own time or at work. Survey questions may ask about your conception of the manager role, your experiences with succession planning, your current work environment, and perceptions about your supervisor. Once you have completed your survey, please place it in the self-addressed envelope provided and put it in the mail. All data will automatically be sent to the research site - the Nursing Research Unit at The University of Western Ontario. Only members of our research team will be able to access the data. All data will be stored in a locked cabinet in a secure room. Representatives of The University of Western Ontario Health Sciences Research Ethics Board may contact you or require access to your study-related records to monitor the conduct of the research.

Possible Risks and Harms to You if You Participate in the Study
There are no anticipated burdens, harms or potential harms for participation in this study. There is a chance that you may feel uncomfortable answering some questions about your workplace and feelings about the organization or coworkers. Care will be taken to ensure confidentiality of survey data and we will respect your privacy. Also, you will not have to answer any questions if you feel uncomfortable.

Possible Benefits to You if You Participate in the Study
Nurses will not be guaranteed any direct benefits as a result of their participation in this study. However, this study will provide insight into how acute care organizations and clinical nurse educators impact new graduate nurses' sense of psychological empowerment and their level of work engagement within the organization. This information can be used to improve the workplace and the role of the clinical nurse educator in such a way that new graduate nurses may feel more supported and satisfied with their role in the organization. As a result, this information can be used to inform policy, organizational initiatives, and develop and improve the current role of clinical nurse educators as leaders in order to better support our new graduate nurses' working in acute care organizations.

Compensation
I have enclosed a $5 coupon redeemable at Tim Horton's as a small token of my appreciation for your contribution to the study. You may keep the enclosed $5 Tim Horton's card whether or not you choose to complete the survey.

Voluntary Participation and Withdrawing from the Study
Before deciding to participate, you should know that you do not have to take part in the study. Participation in this study is voluntary. You may refuse to participate, refuse to answer any questions or withdraw from the study at any time with no effect on your employment status. If, during the course of this study, new information becomes available that may relate to your willingness to continue to participate, this information will be provided to you by the investigator.

Costs Associated with the Study
Participation in this study will not result in any expenses to you.

Information About Study Results
If you would like a copy of the research results, please indicate so in the area provided on the survey. The results of the study may also be submitted for publication pending successful thesis defence.

Confidentiality and Privacy
For the surveys, no identifying information of participants will be linked to the data. Only grouped data will be reported during the dissemination of our findings. Individual responses will not be reported. If the results of the study are reported in a publication, this document will not contain any information that would identify you. Representatives of The University of Western Ontario Health Sciences Research Ethics Board may contact you or require access to your study-related records to monitor the conduct of the research. Each participant will be given a personal identification number (PIN) in order to link individual data across timeframes for the survey. The researcher will link study PINs to your name only for the purposes of distributing information letters and surveys to you. Data will be sent directly to Western with only the PIN as the identifier. All participant names and assigned PINs will be destroyed as soon as the data collection is complete. The survey distribution will consist of the survey as well as a reminder letter, and finally a second distribution of the survey asking non-respondents to complete the survey if they haven't yet done so.

Contacts for Study Questions or Problems
If you have any further questions about this study, please feel free to contact myself, Carly Blair at the contact below. I would very much appreciate your participation in this research project. I would very much appreciate your participation in this research project. If you choose to participate in the survey, please use the pre-addressed, stamped envelope enclosed to return your completed written questionnaire to the research office. If you choose not to participate, please

return the blank questionnaire, after which you will not be contacted further. Thank you very much for considering our request.

What are my research rights?
You indicate your voluntary agreement to participate by completing and returning this questionnaire. You do not waive any legal rights by signing the consent form. You will be given a copy of this letter of information and consent form once it has been signed. If you have any questions about your rights as a research participant or the conduct of the study, you may contact Dr. David Hill, Scientific Director, Lawson Health Research Institute, (519) 667-6649 or The Office of Research Ethics (519) 661-3036, email ethics@uwo.ca.

APPENDIX D

College of Nurses of Ontario (CNO) Request Forms

D. 01   Request for CNO Data

D. 02   Request for Home Mailing Addresses

D. 01

Request
→ for CNO Data

CNO **COLLEGE OF NURSES OF ONTARIO**
ORDRE DES INFIRMIÈRES ET INFIRMIERS DE L'ONTARIO
THE STANDARD OF CARE.

Before completing this form, review the College's Membership Totals at a Glance, Statistical Reports and Data Query Tool to determine if the data is already available.

Guidelines and Instructions

1. Please complete all applicable sections.

2. Return the form by e-mail to stats@cnomail.org or mail or fax to:

   College of Nurses of Ontario
   Analytics and Research
   101 Davenport Rd.
   Toronto, ON M5R 3P1
   Fax: 416 928-6507

3. CNO will acknowledge your request after receiving it. If you do not receive an acknowledgement within five business days, please contact us by e-mail at stats@cnomail.org .

4. Requests for data may be denied if:
   - CNO deems the request inappropriate
   - CNO is not able to provide the requested information
   - CNO does not receive all required documentation
   - The form is incomplete and/or
   - The request is made under false pretenses.

5. Once the request has been assessed and approved by the College, an agreement form will be e-mailed to you. Sign and return the form to confirm the request specifications, estimated time for completion and approximate cost.

6. The fee structure is as follows:
   For-Profit Organization:
   - $500 flat rate (less than 2 hours)
   - $200 per hour in excess of two hours
   Not-For-Profit Organization:
   - $200 flat rate (less than 2 hours)
   - $100 per hour in excess of two hours
   Students Conducting Research in Nursing:
   - $200 flat rate

   (If charges exceed the listed amounts, the actual charge will apply.)
   Note: All fees are subject to HST (13%).

7. Please review the Privacy Code at www.cno.org/privacy to understand how your personal information will be used.

Section One: Requester Information

First Name: Carly	Mailing Address: ▮▮▮▮▮▮
Last Name: Blair	
Organization/Affiliation: Western University	
Department: Arthur Labatt School of Nursing	Telephone Number:
Position/Title: Graduate Student, RN, MScN Candidate	Fax Number:
Name of Professor/Principal Investigator (if applicable): Yolanda Babenko-Mould, RN, PhD, Associate Professor	E-mail Address: ▮▮▮▮▮▮

Section Two: Request on Behalf of Another Party (if applicable)

First Name:	Mailing Address:
Last Name:	
Organization/Affiliation:	Telephone Number:
Department:	Fax Number:
Position/Title:	E-mail Address:

Section Three: Project Details and Data Request

Title of project and intended use of data:

Title: Examining the effects of structural empowerment, psychological empowerment, and clinical nurse educator leadership on new graduate nurses' work engagement in acute care practice settings in Ontario.

Intended use of data: Carly Blair is a master's student who will be undertaking the above named research study as a requirement of completion for Western University's MScN program. The de-identified data will be analyzed and interpreted for the thesis. Study results, which are derived from the de-identified data, will be disseminated in presentation and publication format.

Provide a brief statement of the purpose or objective of the project for which the data is being requested (where applicable, attach project outline or research protocol with this form):

The purpose of this study is to examine the effect of structural empowerment, psychological empowerment, and clinical nurse educator leadership, on new graduate nurses' work engagement in acute care settings.

List the data you are requesting with a rationale for each request:

The request is for a list of names and accompanying mailing addresses of registered staff nurses employed for 3 years or less, with a designation of full-time, part-time, or casual in a direct care nursing position in an acute care practice setting within an urban area.

Indicate the years you wish the data to cover:

January 2014 to September 2017 inclusive.

Other comments:

D. 02

Request

→ for Home Mailing Addresses

COLLEGE OF NURSES OF ONTARIO
ORDRE DES INFIRMIÈRES ET INFIRMIERS DE L'ONTARIO
THE STANDARD OF CARE.

Guidelines and Instructions

1. Please complete all applicable sections.

2. Where applicable, the following documents must be received by CNO along with the completed form:
   - Project outline or research protocol
   - Sample copy of the information being sent to College members (e.g. questionnaires, cover letter)
   - Approval from relevant Ethics Review Board
   - Privacy and security policies associated with the project

3. Return the form by e-mail to stats@cnomail.org or mail or fax to:

   College of Nurses of Ontario
   Analytics and Research
   101 Davenport Rd.
   Toronto, ON M5R 3P1
   Fax: 416 928-6507

4. CNO will acknowledge your request after receiving it. If you do not receive an acknowledgement within five business days, please contact us by e-mail at stats@cnomail.org .

5. Please review the Privacy Code at www.cno.org/privacy to understand how your personal information will be used.

6. Requests for home address lists may be denied if:
   - CNO deems the request inappropriate
   - CNO is not able to provide the requested information
   - CNO does not receive all required documentation
   - The form is incomplete and/or
   - The request is made under false pretenses.

7. Once the request has been assessed and approved by the College, an agreement form will be e-mailed to you. Sign the form to confirm the request specifications, estimated time for completion and approximate cost.

8. The fee structure is as follows:

   For-Profit Organization:
   - $5,000 intellectual property charge
   - $300 flat rate (less than 2 hours)
   - $200 per hour in excess of two hours

   Not-For-Profit Organization:
   - $300 flat rate (less than 2 hours)
   - $100 per hour in excess of two hours

   Students Conducting Research in Nursing:
   - $300 flat rate

   (If charges exceed the listed amounts, the actual charge will apply.)
   Note: All fees are subject to HST (13%).

Section One: Requester Information

First Name:	Mailing Address:
Carly	
Last Name:	
Blair	
Organization/Affiliation:	
Western University	
Department:	Telephone Number:
Arthur Labatt School of Nursing	
Position/Title:	Fax Number:
Carly Blair, RN, BScN, MScN Candidate	
Name of Professor/Principal Investigator (if applicable):	E-mail Address:
Yolanda Babenko-Mould, RN, PhD. Associate Professor	

Section Two: Request on Behalf of Another Party (if applicable)

First Name:	Mailing Address:
Last Name:	
Organization/Affiliation:	Telephone Number:
Department:	Fax Number:
Position/Title:	E-mail Address:

Section Three: Home Address List Requirements

1. Select the criteria for your list. The College does not release any data apart from the name and home mailing address for members who have consented to such release. Check all that apply:

a) Type of Nurse(s)

- ☑ RN
- ☐ RN – Non-Practising*
- ☐ RPN
- ☐ RPN – Non-Practising*
- ☐ NP

b) Nursing Employer

HOSPITAL
- ☑ Acute Care Hospital
- ☐ Addiction & Mental Health Centre/ Psychiatric Hospital
- ☐ Complex Continuing Care
- ☐ Rehabilitation Hospital
- ☐ Other Hospital

COMMUNITY
- ☐ Blood Transfusion Centre
- ☐ Cancer Centre
- ☐ Children Treatment Centre (CTC)
- ☐ Client's Environment
- ☐ Community Care Access Centre (CCAC)
- ☐ Community Health Centre (CHC)
- ☐ Community Mental Health Program
- ☐ Diabetes Education Centre (DEC)
- ☐ Family Health Team (FHT)

b) Nursing Employer (cont'd)

- ☐ Hospice
- ☐ Nurse Practitioner Led Clinic
- ☐ Nursing/Staffing Agency
- ☐ Physician's Office/Family Practice Unit
- ☐ Public Health Unit/ Department
- ☐ Remote Nursing Station
- ☐ Other Community

LONG-TERM CARE
- ☐ Long-Term Care Facility
- ☐ Retirement Home
- ☐ Other Long-Term Care Facility

OTHER
- ☐ Colleges/Universities
- ☐ Correctional Facility
- ☐ Government/ Association/Regulatory Body/Union
- ☐ Health-Related Business/ Industry
- ☐ Industry (Not Health-Related)
- ☐ Schools
- ☐ Spa
- ☐ Telephone Health Advisory Services
- ☐ Other

c) Position in Nursing

- ☐ Advanced Practice Nurse – CNS
- ☐ Advanced Practice Nurse – Other
- ☐ Case Manager
- ☐ Clinical Educator
- ☐ Consultant
- ☐ Educator/Faculty
- ☐ Infection Control Nurse
- ☐ Informatics Analyst
- ☐ Middle Manager
- ☐ Nurse Practitioner (NP)
- ☐ Occupational Health Nurse
- ☐ Office Nurse
- ☐ Outpost Nurse
- ☐ Policy Analyst
- ☐ Public Health Nurse
- ☐ Researcher
- ☐ Sales/ Marketing Representative
- ☐ Senior Manager
- ☑ Staff Nurse
- ☐ Visiting Nurse
- ☐ Volunteer
- ☐ Other

d) Area of Practice

- ☑ Acute Care
- ☐ Administration
- ☑ Cancer Care
- ☑ Cardiac Care
- ☐ Case Management
- ☐ Chronic Disease Prevention/Management
- ☑ Complex Continuing Care
- ☑ Critical Care
- ☐ Diabetes Care
- ☐ Education
- ☑ Emergency
- ☐ Foot Care
- ☐ Geriatrics
- ☐ Infection Prevention/ Control
- ☐ Informatics
- ☑ Maternal/Newborn
- ☑ Medicine
- ☐ Mental Health/ Psychiatric/Addiction
- ☑ Nephrology
- ☐ Occupational Health
- ☑ Palliative Care
- ☐ Perioperative Care
- ☐ Policy
- ☐ Primary Care
- ☐ Public Health
- ☐ Rehabilitation
- ☐ Sales
- ☑ Surgery
- ☐ Telehealth Services
- ☐ Other

* Nurses in the Non-Practising Class are not permitted to practise nursing in Ontario. For more details about the Non-Practising Class, visit http://www.cno.org/en/maintain-your-membership1/nonpractising-class-faq/

2. Describe any additional criteria (e.g. sample size, sample distribution):

A power analysis was conducted using G*Power 3.1, based on a regression analysis to predict outcomes and relationships among the four variables of structural empowerment, psychological empowerment, clinical nurse educator leadership, and work engagement (Polit & Beck, 2012).
Based on an alpha of 0.05, a power level of 0.80, three predictor variables (structural empowerment, psychological empowerment, and clinical nurse educator leadership) and one outcome variable (work engagement), the calculation revealed that 55 participants would be required to calculate a moderate effect size (0.15) in order to conduct a sufficient linear multiple regression. However, 200 participants will be sought to participate in this study to account for lower (30%) response rates typically found with mailed surveys (Polit & Beck, 2012), and potential attrition of new graduate nurses from acute care facility employers.

Section Four: Project Details

1. Title of project:

Examining the effects of structural empowerment, psychological empowerment, and clinical nurse educator leadership on new graduate nurses' work engagement in acute care practice settings in Ontario.

2. Briefly state the purpose of the project. Attach the project outline or research protocol, and sample copy of any information being sent to members (e.g. questionnaires):

The purpose of the project is to examine the effect of structural empowerment, psychological empowerment, and clinical nurse educator leadership on new graduate nurses' work engagement in acute care practice settings in Ontario.

3. Describe the benefits to be derived from the completion of this project:

The study aims to provide insight into how access to empowering structures in acute care organizations, personal empowerment, and clinical nurse educator leadership impact new graduate nurses' level of work engagement within the organization. Study results could be used to improve the workplace and the role of the clinical nurse educator in such a way that new graduate nurses can feel even more supported and satisfied with their role in the organization. The results could be used to inform policy, organizational initiatives, and develop and improve the current role of clinical nurse educators as leaders in order to better support new graduate nurses working in acute care organizations.

4. If the project involves a survey, describe the methodology used to design the survey and analyze the results:

Multiple regression analysis will be used as the appropriate statistical test to assist in predicting relationships among the four variables of new graduate nurses' structural and psychological empowerment, clinical nurse educator leadership, and work engagement (Plitchta & Kelvin, 2013; Polit & Beck, 2012). Although the variable clinical nurse educator leadership could be experimentally manipulated and an experimental study could be performed, clinical nurse educator leadership cannot be manipulated ethically, as it would be unethical to deliberately deprive a randomly assigned group of new graduate nurses access to clinical nurse educator leadership that might positively benefit their nursing practice in the acute care setting.

The following instruments will be used in the study: The Conditions for Work Effectiveness Questionnaire-II (CWEQ II) developed by Laschinger et al. (2000) (see Appendix B) will be used to measure nurses' perceptions of their structural empowerment in the acute care setting. The CWEQ-II consists of 19 items that are responded to on a 5 point Likert scale (1=none to 5=a lot) that measure the six components (subscales) of Kanter's (1997) structural empowerment model (opportunity, information, support, resources, formal power, and informal power). Items for each subscale will be summed and averaged to give a score for each subscale. These will then be summed to give a total structural empowerment score that can range between 6 and 30. Higher overall scores represent higher perceptions of structural empowerment. Previous studies have produced Cronbach alpha reliabilities ranging from .79 to .82 (Laschinger, Almost, Purdy, & Kim, 2004). More recently, a Cronbach alpha reliability of 0.85 was noted (Boamah, Read, & Laschinger, 2016). The Psychological Empowerment Scale (PES), developed by Spreitzer (1995), (see Appendix C) will be used to measure the four components of the psychological empowerment construct as perceived by nurses in acute care organizations: meaningful work, competence, autonomy, and impact. The PES contains 12 items and is rated on a 5 point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Items for each subscale will be summed and averaged to give a score for each subscale. These will then be summed to give a total psychological empowerment score that can range between 4 and 24. Higher overall scores represent higher perceptions of the psychological empowerment construct. Acceptable Cronbach alpha values for the entire scale have been reported as ranging from 0.70 to 0.86 (Laschinger, Nosko, Wilk, & Finegan, 2014). The Utrecht Work Engagement Scale-17 (UWES-17) was developed by Schaufeli and Bakker (2003) (see Appendix D), and it will be used to assess nurses' perceptions of their work engagement. The UWES-17 consists of 17 items on a 7 point Likert scale ranging from 0 (never) to 6 (always) that measure the underlying dimensions of work engagement: vigor (VI, 3 items), dedication (DE, 3 items), and absorption (AB, 3 items). Items for each subscale will be summed and averaged to give a score for each subscale. These will then be summed to give a total work engagement score that can

5. How do you plan to share the results of your project? What is the expected completion date?

The researchers intend to disseminate the study findings to nurse educators, administrators, and nurses at national and international nursing conferences, and through publication in nursing journal. The expected completion date is Spring 2018.

6. Does this project require an ethics review and approval?

⦿ Yes →   Please attach a copy of the ethics approval with this form.
◯ No →   Please explain why an ethics review is not necessary.

7. What measures are in place to protect the confidentiality of CNO's Home Address List? (Where applicable, attach privacy and security policies with this form.)

Names and addresses of randomly sampled participants from the College of Nurses of Ontario will
be collected for recruitment and study package distribution, and to be able to delete study data from any participant who wishes to withdraw their data prior to the data analysis phase. Personal identifie rs will be stored with their corresponding instrument package codes as a master list in a locked file cabinet in the graduate student supervisor's locked University office. All hardcopies of completed instr uments will be stored in a locked file cabinet separate from the master list in the supervisor's (principle investigator) locked University office. Study data from hard copies of returned study instruments w ill be de-identfied, as it would only include a numerical researcher-assigned code on each study package. De-
identified study data will be entered into a password protected electronic SPSS data analysis software file on the principle investigator's password protected University office computer located in her loc ked office, and on the graduate student researcher's password protected computer. Each study package will be numerically coded. No identifiable information will be on any of the study packages. De-
identified and password protected data will also be stored on two password protected memory sticks. One of which will be held by the study supervisor and the other by the graduate student researcher. Hard copy and electronic data will be kept for 5 years in accordance with the minimum time, as required by Western University policy. After 5 years, hard copy documents such as the master list and st udy instruments will be securely shredded by the University shredding system aligned with the School of Nursing and Western University. All electronic data will be permanently deleted from the supervi sor's computer and from the graduate student researcher's computer. All electronic data will also be permanently deleted from the supervisor's and graduate student researcher's flash drive.

8. Is this project funded by an outside body?

View Menu

◯ Yes →   Please provide information about the funding source in the box below.
⦿ No

CURRICULUM VITAE

Post-Secondary Education: The University of Western Ontario
MScN
London, ON, Canada
2014-2020

Durham College Critical Care
Certification
Oshawa, ON, Canada
2013-2015

The University of Western Ontario
BScN
London, ON, Canada
2009-2013

Honours and Awards: Sigma Theta Tau Inductee
University of Western Ontario Chapter
2015

Dean's Honour List Certificate
University of Western Ontario
London, ON, Canada
(2011, 2012, 2014, 2015)

Related Work Experience: Clinical Nurse Educator
St. Mary's General Hospital
Kitchener, ON, Canada
2017-Present

Registered Nurse, Intensive Care
St. Mary's General Hospital
Kitchener, ON, Canada
2016-2017

Registered Nurse, Intensive Care
Stratford General Hospital
Stratford, ON, Canada
2013-2017

Clinical and Lab Instructor
RPN Program
Conestoga College
Kitchener, ON, Canada
2017

Graduate Teaching Assistant
The University of Western Ontario
London, ON, Canada
2014-2015

Clinical Instructor, RPN Program
Fanshawe College
Woodstock, ON, Canada
2015-2017

Professional Memberships: College of Nurses of Ontario
Registered Nurses Association
of Ontario
Canadian Association of Critical
Care Nurses