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Organizational Support and Job Satisfaction of Frontline Clinical Managers: The Mediating Role of Work Engagement

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ORGANIZATIONAL SUPPORT AND JOB SATISFACTION OF FRONTLINE
CLINICAL MANAGERS: THE MEDIATING ROLE OF WORK ENGAGEMENT

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by

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Abstract

Effective frontline clinical managers (FLM's) strongly influence the safe and optimal delivery of healthcare. However, the motivational potential of FLMs working with limited job resources can be hindered, affecting healthcare unit staff morale and adversely impacting organizational performance and patient outcomes. Since managers act as role models for employees, it is crucial for organizations to understand the positive influence of job resources on motivation in order to foster positive FLM working conditions and promote their effectiveness. The purpose of this study was to test propositions drawn from the Job Demands Resources Model, specifically the motivational pathway, to examine the relationships among frontline managers' perceived organizational support, work engagement and job satisfaction. A secondary analysis of data collected from a predictive, non-experimental survey of FLM's (n=159) from 14 Ontario teaching hospitals was conducted. Work engagement partially mediated the relationship between perceived organizational support and job satisfaction. Further, both work engagement and perceived organizational support were significant predictors of job satisfaction and accounted for 44% of the variance in job satisfaction. Results suggest the need for organizations to provide working conditions that are conducive to higher levels of FLM work engagement and job satisfaction ultimately contributing to safe and effective care delivery.

Keywords: Job-Demands Resources Model, perceived organizational support, work engagement, job satisfaction, mediation, frontline managers, nurses.

Dedication

I dedicate this thesis to my late father, Constantine L. Peterson, B.A., M.D., F.R.C.P. (C), F.R.C.P. (N), F.I.C.S. His commitment to life-long learning, evidence-based science and medicine and using knowledge for the greater good set a wonderful example for me and the many others whose lives he touched in such a positive way. I miss our many conversations, remembering his words of support throughout my life which deeply reflected his belief in, and respect for the nursing profession and all the related choices I made along the way.

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Chapter 1
Introduction

The role of the frontline clinical manager (FLM) is defined in Canadian healthcare

settings as an individual who assumes accountability for patient care units including the

hiring and performance management of staff and enabling overall patient care quality and to

whom unit staff such as nurses, other care providers, and non-nursing assistive personnel

report directly (Laschinger & Wong, 2007; Wong et al., 2015). As of 2014, there were 8,861

frontline and middle managers and 1,838 senior managers in Ontario who together,

accounted for just 5% of the registered nursing population (CNO, 2014). This leaves no

doubt that the burden of responsibility they shoulder for facilitating both optimal patient care

and staff member performance is extraordinarily high. As a result of 1990's hospital

restructuring which led to a 29% decrease in manager numbers, the role of the FLM has

changed significantly over the last ten years, culminating in an increase in role

responsibilities such as managing a demanding and diverse workload, developing sound

financial and human resource competencies, and assuming a wider span of control

(Laschinger et al., 2008; Laschinger et al., 2013; Lee & Cummings, 2008; Meyer et al., 2011;

Wong et al., 2015). It is therefore not surprising that many staff nurses hold negative

perceptions of the FLM role such as long work hours, increased stress and role demands and

few aspire to take on these management positions (Wong et al., 2013). However, research

shows a strong relationship between effective leadership and positive organizational

outcomes such as staff satisfaction and retention and improved care quality (Cummings et al.,

2010). Thus, there is a need to understand the factors that motivate and support FLMs to

remain in their roles and to recruit and retain effective leaders for the future (Balogh-

Robinson, 2012; Brown et al., 2013).

The current average age of nurse leaders of all levels is between 47-50 years of age, supporting the pressing need for succession planning in order to prepare effective and competent future leaders that will improve work environments, increase nurse retention and decrease staff turnover (Laschinger & Wong, 2007; Stichler, 2008; Swearingen, 2009; Titzer & Shirey, 2013). Positive nurse manager relationships are cited as a deciding factor for hospital staff nurses' intention to stay and may also play a strategic role in manager satisfaction with their roles. Therefore, it is imperative that effective managers are attracted to and remain in their positions, are effective role models for staff nurses and are able to develop positive relationships with them in order to send an encouraging message about the role of leadership (Laschinger, Purdy & Almost, 2007; Maslove & Fooks, 2004; Warshawsky & Havens 2014). In order to do this effectively, managers must also enjoy the same positive relationship with their own superiors and especially, the organizations they are working for (Laschinger, et al., 2007; Laschinger, Purdy, Cho, & Almost, 2006).

The Job-Demands Resources Model (JD-R) provides an excellent framework for understanding how the well-being of employees is influenced by job demands and job resources through two interrelated yet distinct psychological pathways (Bakker & Demerouti, 2007). In the health impairment pathway, employees who experience excessive job demands that require effort and skill encounter job strain, possible health problems, and negative organizational outcomes. Conversely, the motivational pathway proposes that employees with ample job resources such as support, role coaching, or opportunities for growth will be more highly motivated to do their jobs, experiencing work engagement which will lead to positive organizational outcomes such as organizational commitment, job satisfaction or low turnover intention (Bakker & Demerouti, 2007; Demerouti, Bakker, Nachreiner, & Schaufeli,

2001a). Previous research has demonstrated how job resources and motivation can lead to positive organizational outcomes in a variety of organizations such as schools, telecommunication services, and white collar working environments (Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007; Schaufeli, Bakker, & Van Rhenen, 2009; Schreurs, De Cuyper, Van Emmerik, Notelaers, & De Witte, 2011). The model is flexible enough to apply to both general and profession-specific job resources because model variables can be adjusted to satisfy the unique needs of any discipline, including healthcare (Hakanen, Bakker & Demerouti, 2005). The motivational process is guided by the presence of job resources because they are either instrumental in achieving work goals or have the ability to foster employee growth, learning, and development (Schaufeli et al., 2009).

Job resources are defined by Demerouti, Bakker, Nachreiner, and Schaufeli (2001b) as physical, psychological, social or organizational aspects of a job that are functional in achieving work goals, and/or reduce job demands and the associated psychological and physiological costs, and/or stimulate personal growth and development. Examples of job resources tested in the literature using the JD-R model in general nursing populations include psychological capital, job control, and supportive professional practice environments (Laschinger, Grau, Finegan, & Wilk, 2011) and in FLM populations include job control, supervisor support, and organizational support (Akhtar & Lee, 2010).

Perceived organizational support (POS), the job resource examined in this study, is the resultant outcome of employees' general beliefs that their organization cares about their well-being and values their contributions and is characterized by organizational attributes such as fairness, supervisor support, favourable job conditions, and organizational rewards (Rhoades & Eisenberger, 2002). Perceived organizational support is a basic tenet of

employee satisfaction and results in an increased effort to fulfil organizational goals and greater organizational commitment (Laschinger, Wong, Grau, Read, & Pineau Stam, 2011). Laschinger et al. (2011) suggested that enhancing perceived organizational support in the workplace will promote retention of competent nurse managers. When combined with empowerment, perceived organizational support was a significant predictor of middle level nurse manager role satisfaction (Patrick & Laschinger, 2006). Finally, Laschinger et al. (2006) determined that organizational commitment, job satisfaction, effort, nurse-assessed quality of care, physical symptoms, energy level, and emotional exhaustion were significant outcomes of perceived organizational support. In this study, using the Job Demands-Resources model as a theoretical framework, it is expected that perceived organizational support, a job resource, has the motivational potential to stimulate an individual's work engagement.

Work engagement is a term describing a positive work-related state of mind characterized by vigor, dedication and absorption (Bakker & Demerouti, 2008; Gray, 2012). Few researchers have examined FLM work engagement; however in one recent study, nurse managers reported high work engagement suggesting that they find their work to be meaningful and also that they had enough job and personal resources to balance the demands of their work (Bakker & Demerouti, 2008; Warshawsky, Havens, & Knafl, 2012). Job resources that have been associated with increased work engagement in the organizational literature include autonomy, performance feedback, supportive colleagues and supervisory coaching (Bakker & Demerouti, 2008; Schaufeli & Bakker, 2004; Warshawsky et al., 2012). The relationship between work engagement and organizational outcomes is increasingly

well-documented, however, much less is known about work engagement and outcomes in relation to the frontline clinical manager population.

An important work outcome for frontline managers is job satisfaction. Since healthcare managerial positions are fraught with workplace stressors including role ambiguity, role overload, role conflict, organizational constraints and interpersonal conflict, one would expect decreased job satisfaction among managers (Kath, Stichler, Ehrhart, & Sievers, 2013). However, scant research exploring job satisfaction has been conducted on this population with the bulk of literature devoted to staff nurse job satisfaction, even though patient outcomes, staff work outcomes including job satisfaction, and organizational success are strongly dependent on the role of the FLM (Cummings et al., 2010; Kath, Stichler, & Ehrhart, 2012; Kath et al., 2013; Wong, Cummings, & Ducharme, 2013). Frontline manager retention is a concerning recurrent theme in present healthcare literature. A few studies determined that FLM job satisfaction is positively associated with intention to stay, and is predicted by other organizational, role, and personal factors including qualifications and skills (Brown, Fraser, Wong, Muise, & Cummings, 2013; Johnstone, 2003; Laschinger et al., 2008; Way et al., 2007). Organizational and social support from superiors have been positively related to nurse manager job satisfaction (Lee & Cummings, 2008). In a systematic review of factors influencing the retention of nurse managers, Brown et al. (2013) identified that organizational culture and values were the most common factors, putting the onus on workplace organizations to strive towards a better understanding of FLM job satisfaction and implement strategies to enhance retention (Parsons & Stonestreet, 2003; Mitchell 2007; Strelioff, 2007; Way et al., 2007; Mackoff & Triolo, 2008a; Mackoff & Triolo, 2008b).

The Job Demands-Resources Model (JD-R) offers a framework for understanding how a job resource contributes to motivation and a positive work outcome such as greater job satisfaction (Demerouti et al., 2001a). Few studies have empirically tested the motivational pathway, one of the theoretical propositions outlined in the JD-R Model, in the healthcare FLM population. Given the significance of the FLM role to patient care quality and effective staff work outcomes, an investigation of factors that influence the extent to which managers feel supported and engaged in their positions in order to facilitate job satisfaction is warranted (Lee & Cummings, 2008). Hence, the purpose of this study was to test the motivational pathway of the Job Demands Resources Model, to examine the relationships among frontline managers' perceived organizational support, work engagement, and job satisfaction in a sample of FLMs from 14 teaching hospitals in Ontario.

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Chapter 2

Manuscript

The recruitment and retention of exemplary frontline clinical managers (FLM) in healthcare organizations are of paramount importance to the safe and effective care delivery (Shirey, McDaniel, Ebright, Fisher, & Doebbeling, 2010). Furthermore, one key to outstanding organizations is an engaged workforce that is motivated to perform their work to the best of their ability in work environments that are supportive and energizing (Bakker & Schaufeli, 2008; Schaufeli & Bakker, 2004a; Schaufelli, Bakker, & Van Rhenen, 2009; Warshawsky, Havens, & Knafl, 2012). Frontline managers are charged with the responsibility for creating those motivating environments (Anonson, Walker, Arries, Sithokozile, Telford, & Berry, 2013; Laschinger et al., 2013). The literature is replete with empirical findings on the features of nursing work environments that promote positive work outcomes such as work engagement and job satisfaction of staff nurses (Giallonardo, Wong & Iwasiw, 2010; Hayes, Bonner, & Pryor, 2010; Jenaro, Flores, Orgaz & Cruz, 2010). However, we know little about the organizational factors that motivate and inspire healthcare managers in their work and promote their job satisfaction.

The FLM role is central to the facilitation of positive patient safety and nursing work outcomes such as job satisfaction, work performance, and retention and recruitment of effective care providers (Wong, et al, 2015). However, as managers begin to retire, fewer nurses are showing an interest in applying to fill these positions thus increasing the possibility of a future shortage (Laschinger, Purdy, & Almost, 2007; Laschinger et al., 2013). Healthcare organizations are called to implement strategic manager succession planning in order to address the decreased interest in the role and a potential FLM shortage (Laschinger

et al., 2008; Titzer & Shirey, 2013). An interesting finding in a 2007 Canadian leadership

study was that the average age of all levels of nurse leaders was 47-50 years and this

indicates the urgency of addressing the future of nurse leadership by learning more about the

ways in which organizations can promote and retain effective FLMs (Laschinger, Wong, &

Almost, 2007). There are also concerns that staff nurses are deterred from management roles

due to negative role perceptions such as the need for graduate education, the development of

budget and human resource competencies, heavy workload and a large span of control,

potential for work-life imbalance, and reduced patient contact (Wong et al., 2015).

FLMs today, deal with unremitting job demands due to increasingly wider spans of

control and the responsibilities of addressing serious organizational issues including staff

shortages, patient safety concerns, and challenging work environments. These challenging

demands and responsibilities may threaten the degree to which FLMs feel satisfied in their

roles; therefore attention to FLM job satisfaction by creating satisfying working conditions

and minimizing role stress associated with the management position may be key to retaining

them (Fennimore & Wolf, 2011; Laschinger et al., 2007; Shirey et al., 2010; Warshawsky &

Havens, 2014). Perceived organizational support embodies an employee's generalized belief

that the workplace values his/her input and cares about his/her wellbeing (Rhoades &

Eisenberger, 2002). Hence, the extent to which organizations value and support their

managers may play an important role in retaining them and attracting future leaders to

management positions (Patrick & Laschinger, 2006). Organizational interventions to support

the FLM role need to be initiated by employers in order to facilitate the continued work

engagement of FLMs including both effective role development and provision of working

conditions that allow room for managers to exercise their leadership potential (Shirey et al.,

2010; Skagert, Dellve, & Ahlborg, 2011). The outcome of this approach is to ensure that FLMs who are most capable will be retained in their positions (Skagert et al., 2011).

Acorn, Ratner, and Crawford (1997) identified job satisfaction of nurse managers as an important predictor of their organizational commitment and ultimately positive organizational performance. Job satisfaction is influenced by the nurse manager's ability to exercise control over their practice and is a key indicator of how they feel about their positions (Warshawsky & Havens, 2014). Predictors of job satisfaction in Canadian nurse managers include perceived organizational support, quality of relationships with supervisors, and structural and psychological empowerment (Laschinger, Purdy, Cho, & Almost, 2006; Laschinger, Purdy et al., 2007; Warshawsky & Havens, 2014). Although some studies have linked job satisfaction with work engagement in general nursing professionals (Giallonardo et al., 2010; Jenaro et al., 2010), scant evidence exists that examines the work engagement of FLMs. Therefore, it is crucial for organizations to learn what positive factors support and influence manager engagement in their work and overall job satisfaction since they strongly influence the work environment and act as role models for staff nurses who are potential future managers themselves (Patrick & Laschinger, 2006; Shirey, 2006).

Current literature examining FLMs supports the importance of further investigation into the various job resources that positively affect their ability to function, flourish, and influence others in their work environment (Kath, Stichler, & Ehrhart, 2012; Laschinger et al., 2013; Van Bogaert, Adriaenssens, Dilles, Martens, Van Rompaey, & Timmermans et al., 2014; Warshawsky & Havens, 2014; Wong et al., 2014). The Job Demands-Resources Model (JD-R) provides a framework that attempts to integrate both the stress research tradition and the motivation research tradition by examining the effects of job demands

which are initiators of a health impairment process and job resources which are initiators of a motivational process (Demerouti & Bakker, 2011). In doing so, the model identifies the interaction between demands and resources and predicts important organizational outcomes (Demerouti & Bakker, 2011). This knowledge is extremely important since staff satisfaction, turnover, manager mental and physical health, manager job satisfaction, overall health of the work environment, and patient outcomes are all influenced by FLM engagement in their work (Kath, et al., 2012). The purpose of this study was to use the Job Demands Resources Model, specifically the motivational pathway, as a theoretical framework to investigate the relationship between the perceived organizational support, work engagement and job satisfaction of frontline healthcare managers in Ontario.

Theoretical Framework

Development of the Job Demands-Resources Model originated from a number of job-stress models including Karasek's (1979) Job Demands Control Model (JDC) and the Model of Burnout and Life Satisfaction (Demerouti, Bakker, Nachreiner & Schaufeli, 2000; Hakanen, Roodt, & Leiter, 2010). These models illustrate that job stress is a result of high job demands such as work overload and low job control leading to an imbalance between demands and control and ultimately causing job strain (Hakanen et al., 2010). Model research results over the years have been contradictory and it was subsequently determined that the JDC was simplistic and ultimately limited since it did not take workers' individual characteristics into account (Rodriguez, Bravo, Peiro, & Schaufeli, 2001; Hakanen et al., 2010).

A new dual process model, the JD-R (Bakker & Demerouti, 2007; Demerouti et al., 2001) was developed to expand on the JDC and other previous stress models because it

became apparent that more complexity was needed in an effort to test job stress beyond two variables in order to keep up with the equally increasing complexity of work organizations (Bakker & Demerouti, 2007). In this model (Figure 1), Bakker and Demerouti (2007) proposed that employees' wellbeing is influenced by job demands and job resources through two distinct but interrelated psychological pathways: the health impairment pathway and the motivational pathway. *Job demands* consist of aspects of a job that require the use of one's effort or skills while *job resources* are aspects of the job that help get work done, reduce job demands, and/or stimulate employee growth, learning, and development. In the health impairment pathway of the JD-R model, employees who face chronic and excessive job demands experience energy depletion (job strain) and subsequent health problems leading to detrimental outcomes for organizations. In the motivational pathway, it is proposed that employees who have sufficient job resources will be motivated to do their jobs (i.e., employees will be highly engaged in their work), leading to positive organizational outcomes such as job satisfaction and low turnover intentions (Bakker & Demerouti, 2007; Demerouti, 2001).

A recent study of older Belgian workers (*n*=1812), examined this dual process to better understand early retirement intention (Schreurs, De Cuper, van Emmerik, Notalaers, & de Witte, 2011). Of particular interest was how this study capitalized on the positive motivational tenets of the JD-R model by showing that the relationship between job resources and early retirement intention was mediated by work enjoyment which was used as an indicator of motivation (Schreurs et al., 2011). Furthermore, the motivational process played a more prominent role in retirement intention than the health impairment process (Schreurs et al., 2011).

To date, the JD-R model has been applied in well over one hundred studies, covering a broad range of disciplinary areas in many countries but the majority is still heavily rooted in the Netherlands where the JD-R was conceived. A small number of studies were published by Canadian researchers including a 2011 nursing study by Laschinger, Grau, Finegan, and Wilk (Jourdain & Chanevert, 2010; Lee, Lovell, & Brotheridge, 2010; Trembley & Messervey, 2011). Flexibility of the model is demonstrated by its ability to focus on both general and profession-specific job demands and resources (Hakanen , Bakker, & Demerouti, 2005), making it particularly appealing to nursing since the variables can be modified to fit the unique demands and resources specific to the profession.

Additionally, the JD-R model also includes a bidirectional relationship between job demands and resources, indicating that job resources may act as a buffer between employees' job demands and job strain, which mediates the relationship between job demands and organizational outcomes in the health impairment pathway of the JD-R model. In particular, when job demands are high, job resources can help reduce job strain by increasing workers' motivation, thus a bidirectional relationship also exists between job strain and employee motivation. The current study does not look at these additional relationships, as it focuses exclusively on testing the motivational pathway of the JD-R model by examining the relationship between job resources (perceived organizational support), motivation (work engagement), and work outcomes (job satisfaction).

Job Demands and Resources

Job demands refers to "those physical, social or organizational aspects of the job that require sustained physical or mental effort (cognitive and emotional), and are therefore associated with certain physiological and psychological costs" (Demerouti et al., 2001, p.

501) that potentially evoke what effectively amounts to reduced health and energy if they extend beyond the employee's adaptive capability (Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007).

Job resources are "those physical, psychological, social or organizational aspects of the job that may be functional in achieving work goals, reduce job demands and its associated costs, and stimulate personal growth and development" (Demerouti et al., 2001, p. 501) and refer to working conditions that provide resources for individual employees and have motivational potential that leads to positive outcomes (Hakanen & Roodt, 2010; Shreurs et al., 2011).

Figure 1. *Job Demands-Resources Model*
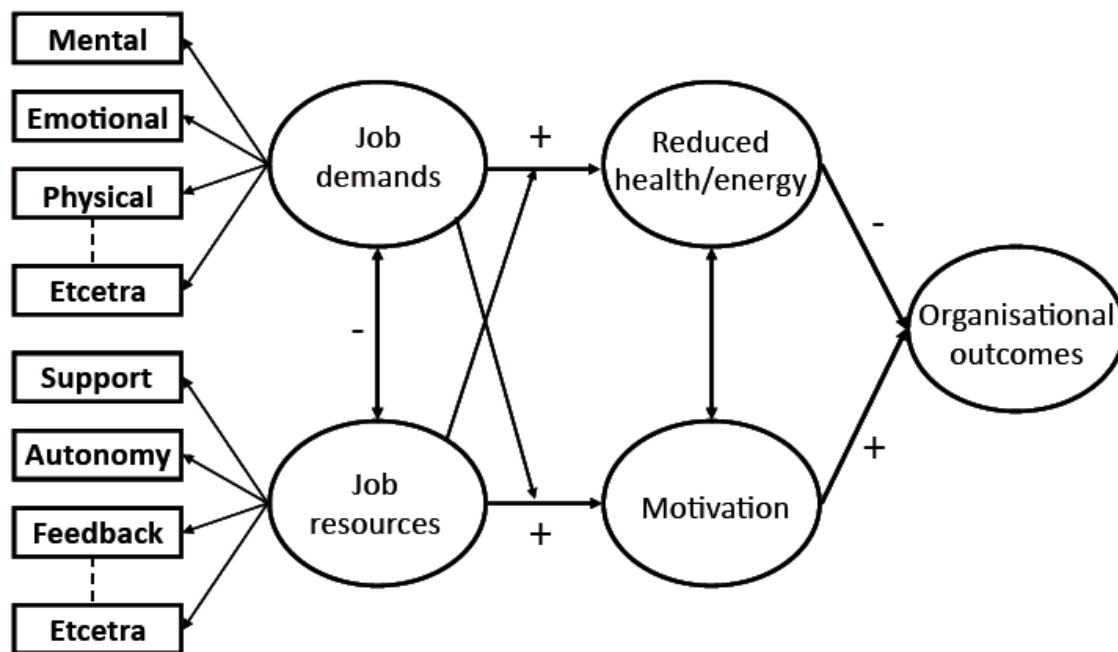
 (Demerouti & Bakker, 2011)

Perceived organizational support (POS) is an organizational aspect of the job that can be classified as a job resource and positively affects FLM attitudes, performance levels and health outcomes (Laschinger et al., 2006). Provision of necessary resources in the workplace

creates an atmosphere where employees' engagement, commitment and performance increase since they find their work more fulfilling (Demerouti et al., 2001; Medhurst & Albrecht, 2011). Work engagement (WE) is an example of a psychological aspect of a job that can be classified as motivation and may be conceived as the positive antipode or antithesis of burnout (Schaufeli, Bakker & Salanova, 2006). In other words, job resources are positively associated with motivationally-linked concepts such as work engagement (Shreurs et al., 2011).

Literature Review

In this literature review, theoretical and empirical studies of the Job Demands-Resources model, perceived organizational support, work engagement, and job satisfaction including documented relationships among these concepts are discussed.

The Job Demands-Resources Model and Frontline Managers

The versatility of the JD-R model should make it attractive to FLMs and nursing scholars; however, few studies have used the JD-R model to predict workplace outcomes in healthcare and only two (Akhtar & Lee, 2010; Kath, Stichler, Ehrhart & Sievers, 2013) tested the model using healthcare management populations. Although neither study examined a motivational pathway, Akhtar and Lee (2010) determined that job demands and job resources differed in their effects on burnout. Job demands not only had a stronger effect but it also partially mediated the effect of job resources on burnout dimensions (Akhtar & Lee, 2010). Kath et al. (2013) tested the model in nurse managers (n=480) and concluded that role overload with an average of 13% increase in the variance of job stress was the most significant predictor of job stress.

Seven general nursing studies were located that examined burnout using the JDR model. Hansen, Sverke, and Naswall (2009) examined the origin and prevalence of burnout by exploring the psychosocial work environments of registered nurses across three Swedish hospitals (*n = 1102*) and found that several job demands which included workload, role conflict, and job insecurity resulted in higher burnout levels and several job resources which included job autonomy, goal clarity, work group support, supervisor support, job challenge, and feedback were linked to lower burnout levels (Hansen, et al., 2009). In a study investigating stress, burnout, and intention to leave in registered nurses working in hospitals (*n* = 1636), researchers concluded that in the case of emotional exhaustion, excessive demands were far more detrimental to individual well-being than insufficient resources (Jourdain & Chanevert, 2010). Both studies clearly supported a main JDR model proposition by demonstrating that different job demands and resources lead to varied job-stress outcomes (Bakker, Demerouti, & Euwema, 2005; Nielsen, Mearns, Matthiesen, & Eid, 2011).

Laschinger, Grau et al. (2011) tested the recently expanded version of the model (Xanthopoulou et al., 2007), and included psychological capital as a personal resource. Psychological capital is a composite construct defining an individual's psychological state which is characterized by the positive resources of self-efficacy, optimism, hope, and resilience (Luthans, Youssef, & Alvolio, 2007). Results using structural equation modeling showed that personal resources was significantly and positively related to higher work engagement (β = .41), lower emotional exhaustion (β = -.22), and better mental health and fewer depressive symptoms (β = -.24) but unexpectedly, also predicted higher turnover intentions (β = .19) of 420 new graduate nurses (Laschinger, Grau et al., 2011). The authors suggested that this could be the result of a more positive self-perception of competence and

value, along with optimism related to future job opportunities and an increased inclination to leave a hostile working environment. These results support the model's expanded framework and application to nursing as well as broader healthcare research (Laschinger, Grau et al., 2011).

The one reported longitudinal study was done by a Danish group of nursing researchers who explored the links between psychosocial job demands, job resources, and long-term sickness absence, with a one-year time lag in a sample of 1911 Danish nursing staff (Clausen, Nielsen, Carneiro, & Borg, 2011). Results of cox proportional hazards regression model showed that psychosocial job demands increased and job resources decreased the risk of sickness absence for longer periods of eight weeks or more (Clausen et al., 2011). As far as is known, there are no studies that have tested the JD-R model combining the variables of this study which include perceived organizational support, work engagement and job satisfaction.

Perceived Organizational Support

Perceived organizational support (POS) is defined as employees' generalized beliefs about the degree to which their organization cares about their well-being and values their contributions to the workplace (Rhoades & Eisenberger, 2002). When employees experience strong commitment or POS from their organization they in turn feel more committed to the organization and show greater loyalty, increased performance, and less sick time (Rhoades & Eisenberger, 2002). It is preferable that the employee perceive organizational support as voluntary acts of the employer instead of external constraints such as union rules since these acts are viewed as personally favourable treatment and has beneficial outcomes for both the employee in terms of job satisfaction and the employer in terms of employee performance

and job retention (Rhoades & Eisenberger, 2002). Investigating the work experience of

FLMs, Apker (2002) identified that high levels of role stress stemmed from managers' low

participation in organizational decision making while those who did participate felt that their

opinions were not valued by their organization. Furthermore, Lee and Cummings' (2008)

systematic review of manager job satisfaction showed that managers derive a high level of

job satisfaction from organizational support through supervisors who encourage autonomous

use of time, participation, input in decision-making, emotional support, and opportunity to be

heard.

In a recent study examining the effects of leadership practices and empowerment on

Canadian acute care FLMs (n=788), POS had a significant positive direct effect (β= 0.18, $P <$

0.001) on perceived quality of care (Laschinger, Wong, Grau, Read, & Pineau Stam, 2011).

In addition, POS had a significant direct negative effect (β= 0.19, $P <$ 0.001) on intentions to

leave (Laschinger, Wong et al., 2011). Furthermore, structural empowerment was an

important mediator between leadership practices and POS, perceived quality of care, and

turnover intentions of FLMs (Laschinger, Wong et al., 2011).

Results of a study examining antecedents and consequences of nurse managers'

perceptions of organizational support demonstrated high levels of job autonomy as well as

adequate respect and rewards predicted POS, however, 58% still felt high levels of burnout,

suggesting that resistance to job strain may be increased with high levels of POS (Laschinger

et al., 2006). The quality of the work environment plays a large role in attracting and

retaining FLMs and so it is crucial that they receive the necessary organizational support

required to maximize patient care quality (Laschinger et al., 2006). Consequences of POS

included increased organizational commitment ($r = 0.64$), job satisfaction ($r = 0.40$), energy

level ($r = 0.28$), effort ($r = 0.40$), and nurse-assessed quality of care ($r = 0.19$), as well as reduced physical symptoms ($r = -0.26$) and emotional exhaustion ($r = -0.39$).

The importance of an empowering work environment was highlighted in a study examining middle-level nurse managers ($n = 126$), where it was determined that POS was significantly related to role satisfaction and this positively influenced their ability to feel valued, rewarded, and satisfied in their nursing leadership role in the organization (Patrick & Laschinger, 2006). Structural empowerment ($\beta = 0.42$) and POS ($\beta = 0.42$) were significant predictors of role satisfaction and accounted for 46% of the variance in role satisfaction (Patrick & Laschinger, 2006). Findings also showed that middle managers who have increased POS will be inclined to favorably influence both FLMs and staff alike in attaining work goals (Patrick & Laschinger, 2006). Although there have been only a handful of studies examining POS of FLM's, POS has been identified as an important job resource that has been positively related to the job satisfaction of FLMs.

Work Engagement

Work engagement is a term used to describe a fulfilling and positive work-related state of mind that is characterized by vigor, dedication, and absorption (Schaufeli et al., 2006; Schaufeli, Salanova, Gonzalez-Roma, & Bakker, 2002). *Vigor* is defined by high energy levels, the willingness to invest in one's work, mental resilience, and persistence in the face of challenges (Schaufeli et al., 2006). *Dedication* is characterized by a strong involvement in one's work and the experience of significance, pride, inspiration, enthusiasm, and challenge (Schaufeli et al., 2006). *Absorption* is characterized by the full concentration and engrossment in one's work where detachment is difficult and time pleasantly passes quickly (Schaufeli et al., 2006). Vigor and dedication are direct opposites to exhaustion and

cynicism, both core burnout dimensions as determined by Maslach, Schaufeli, and Leiter (2001), and therefore correlations between vigor and exhaustion as well as dedication and cynicism are anticipated to be strongly negative (Schaufeli et al., 2006). Furthermore, studies have shown that engagement is a mediating mechanism between organizational conditions and job performance, and work behaviours, work attitudes, and outcomes (Salanova & Scahufeli 2008; Wong, Laschinger, & Cummings, 2010).

Mackoff and Triolo (2008) identified ten signature behaviours of engaged and experienced nurse managers in a national (United States) qualitative study (n=30). These behaviours included being mission driven, possessing generativity, ardor, identification, boundary clarity, reflection, self-regulation, attunement, change agility, and affirmation. In a subsequent qualitative study, Gray (2012) stated that who nurse managers are and what they represent as opposed to what they do is what inspires the advancement of nursing practice through nurse manager engagement and this in turn, will not only inspire future nurse leaders but also connect directly to staff nurse retention and success (Gray, 2012).

Organizational factors as well as individual characteristics also influence work engagement (Simpson, 2009). Nurses will be attracted to an organizational setting where theory-driven strategies are implemented to keep employees engaged in their work (Laschinger, Wilk, Cho, & Greco, 2009). However, it has been a challenge for nurse educators and administrators to foster a positive transition of new nursing graduates into the workplace in a way that encourages engagement, cultivates satisfaction, and leads to increased retention. In a 2010 study new graduate nurses (n=170), Giallonardo et al. showed that work engagement was not only positively related to job satisfaction ($\beta = 0.34, P < 0.01$), but also partially mediated the relationship between authentic leadership ($\beta = 0.22, P < 0.01$)

and job satisfaction. Schauflei et al. (2009) determined that telecom managers' (*n*=201) work engagement predicted their future absence frequency. However, instead of reducing exposure to job demands, Schaufeli et al. (2009) determined that facilitating the motivational potential of job resources was more influential in reducing burnout and associated absences. This is an important finding since it supports the usefulness of the JD-R motivational pathway to examine work engagement in FLMs.

Warshawsky et al. (2012) tested the effects of interpersonal relationships on work engagement and proactive work behavior of nurse managers (*n*=290) from 44 American states using the *Relational Coordination Scale* (Gittell, 2009), the *Utrecht Work Engagement Scale* (UWES) (Schaufeli & Bakker, 2004b) and *the Proactive Work Behaviour Scale* (Parker & Collins, 2010). Findings showed that interpersonal relationships with both nurse administrators (*β*=.324, *p<.*001*),* and with physicians (*β*=.259, *p<.*001*)* were significantly related to manager work engagement. The study also identified that nurse managers had higher work engagement than much larger samples of business managers (*M*= 6.62, *SD*=0.83) and acute care staff nurses (*M*=4.60*, SD*=0.62) working in the United States. This finding suggested that nurse managers considered their work to be meaningful and that they had access to adequate job and personal resources to offset the demands of their work (Bakker & Demerouti, 2008; Palmer, Griffin, Reed, & Fitzpatrick, 2010; Schaufeli & Bakker, 2004a; Warshawsky et al., 2012).

Van Bogaert et al. (2014) examined the work related stress and well-being of 365 Belgian FLMs. Hierarchical regression models showed that role conflict and role meaningfulness were strongly predictive of FLM work related stress and well-being along with various job and organizational characteristics suggesting areas of attention in order to

retain engaged, committed and healthy nursing managers (Van Bogaert et al., 2014). Using Schaufeli and Bakker's short version of the UWES (2006), 26% of the variance in work engagement was explained by job role variables, specifically positive perceptions of role conflict and role meaningfulness were associated with higher levels of work engagement (Van Bogaert et al., 2014). Through examination of their own findings along with a comparative analysis of previous studies, the authors suggested that managers who work in supportive conditions will be able to address the needs of the acute care patient by creating and sustaining a supportive nurse work environment which will ultimately achieve an experienced and stable nurse workforce (Van Bogaert et al, 2014). Although there are a few recent studies related to FLM work engagement, there is still a need to examine manager work engagement through its connections to POS and job satisfaction.

Job Satisfaction

Job satisfaction is generally defined as an employee's affective reactions to his or her job (Fields, 2002). Although interpretations and conceptualizations may differ slightly from study to study, Lee and Cummings (2008) identified twelve predictors of job satisfaction in a systematic review of 14 studies that examined FLM job satisfaction. These predictors were grouped into categories which included organizational change, organizational support, job characteristics, the managerial role, and educational development. Evidence supported positive relationships between organizational support for FLMs, manageable span of control, empowerment, and FLM job satisfaction (Lee & Cummings, 2008). Furthermore, reducing span of control and workload as well as devising strategies to increase empowerment and support were recommended (Lee & Cummings, 2008). Finally, the study suggested that the level of FLM job satisfaction is different than that of nursing staff and nursing executives

which indicated the need for more research to examine determinants with greater depth and clarity (Lee & Cummings, 2008).

A manager's job satisfaction can be influenced in many ways. The organization's ability to convey a sense of value for managers as employees is largely dependent on its culture and value system and this influences job satisfaction levels in FLMs (Brown, Fraser, Wong, Muise, & Cummings, 2012; Lee & Cummings, 2008). In a study of 480 American FLMs, Kath et al. (2012) found that FLM job satisfaction was enhanced by autonomy and job predictability and this in turn, decreased FLM intentions to leave their roles. Stress is also a critical factor, so the perceived level of stress and the ability of FLMs to deal with stress in healthy and productive ways are two important factors in job satisfaction (Kath et al., 2012). Kath et al., (2012) also showed that job stress was related inversely to job satisfaction ($r= -0.42$, $p<.01$) and that increased social support and autonomy in the role dampened the effect of stress on job satisfaction, commitment, and intention to quit.

Job satisfaction is influenced by leadership indirectly through the manager's perceptions of workplace empowerment. Results of a 2007 study by Laschinger, Purdy et al. of Ontario FLMs ($n=141$) showed that leader-member-exchange quality which is the nature and quality of relationships between the FLMs and their supervisors had a positive indirect effect on job satisfaction through structural and psychological empowerment ($\beta = .35$). There is limited evidence in other more current literature that expands upon these findings and clearly conceptualizes the relationship between job satisfaction and other workplace variables such as perceived organizational support indicating a need for further exploration.

Warshawsky and Havens (2014) noted in their study of job satisfaction and intent to leave of 291 American FLMs that 70% of FLMs planned to leave their jobs in the next 5

years even though they felt satisfied or highly satisfied in their positions and were likely or highly likely to recommend management as a career. These findings also suggest a need for further research in order to determine and more clearly understand the antecedents and consequences of the FLM job satisfaction (Warshawsky & Havens, 2014).

Summary of the Literature

Positive organizational outcomes of managerial job satisfaction is recognized and supported in the literature (Kath et al., 2012; Laschinger, Purdy et al., 2007; Laschinger, Wong et al., 2011; Lee & Cummings, 2008; Warshawsky & Havens, 2014) and a link has also been established between POS and job satisfaction of FLMs (Lee & Cummings, 2008; Patrick & Laschinger, 2006; Rhoades & Eisenberger, 2002). The literature also includes evidence of a relationship between work engagement and positive healthcare organizational outcomes such as reduced turnover intention and increased job resources and work performance (Schaufeli & Bakker, 2004a; Schaufeli et al., 2009; Simpson, 2009). Two recent studies have supported a connection between work engagement and job satisfaction, although not in a management population but among nurses in general, suggesting a definite gap in relation to FLMs (Giallonardo et al., 2010; Jenaro et al., 2011). Both the Giallonardo et al. study and the Jenaro et al. studies are significant since they establish a foundation to further examine work engagement as a mediator between PO and job satisfaction in a FLM population. The amount of evidence overall is far from abundant and no study to date has examined relationships among FLMs' perceived organizational support, work engagement, and job satisfaction. Therefore, the information that may be gained from this study may greatly contribute to healthcare organizations' efforts to keep managers satisfied and engaged and in turn, inspire future nurse leaders to join them in the ranks.

Hypothesis and Rationale

Based on the Job Demands-Resources Model and a review of the literature on perceived organizational support, work engagement and job satisfaction, the following hypothesis was developed and tested (Figure 2).

Hypothesis: Work engagement partially mediates the positive relationship between perceived organizational support and job satisfaction of FLMs.

Figure 2: *Proposed Model.*
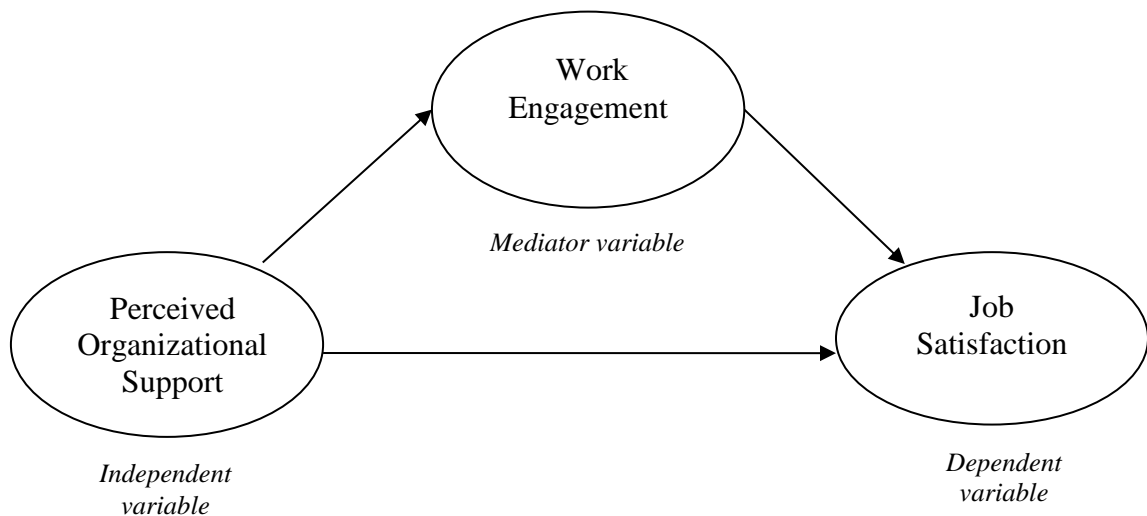
The evidence supporting the validity of the JD-R model as a valuable tool to better predict organizational outcomes is strong. The hypothesis is realistic in that the expectations of measurable differences in outcomes are supported by the predictive characteristics of job resources and personal resources or motivation leading to positive organizational outcomes, such as job satisfaction, work engagement, and future organizational and personal resources (Demerouti & Bakker, 2011; Laschinger, Grau et al., 2011; Salanova et al., 2006; Schreurs et al., 2011). In the case of this study, a partial mediation model was hypothesized indicating that POS influences manager job satisfaction directly and also indirectly through work

engagement. Perceived organizational support is the starting point of the motivational pathway that positively influences the second, motivationally-based resource of work engagement and in turn, work engagement will play an important role in determining the relationship between perceived organizational support and job satisfaction. When managers feel supported by their organization in terms of needed resources such as fairness, supervisor support, positive job conditions, and organizational rewards to do their job (Eisenberger, Huntington, Hutchison, & Sowa, 1986), they in return care about the organization's welfare, increase their efforts on the job, and become meaningfully engaged in their work which will subsequently result in an increase in their job satisfaction (Bakker & Demerouti, 2007; Rhoades & Eisenberger, 2002).

Although there are no FLM studies that have used the JD-R model, the results of four previous studies support its use as a suitable tool to test the mediating role of a job resource variable (POS) in healthcare FLM research (Demerouti & Bakker, 2011; Laschinger, Grau et al., 2011; Schreurs et al, 2011; Xanthopoulou et al., 2007). Findings of this study may contribute to a deeper understanding of the roles of both POS and work engagement as they relate to and influence FLM job satisfaction.

Methods

Design and Sample

A secondary analysis of data from a study entitled, *Span of control study: examining the relationship between clinical manager span of control and manager and unit work outcomes in Ontario academic hospitals* was conducted (Wong, 2011). A predictive, non-experimental design was used in the original study. Ethical approvals were received by the University of Western Ontario Health Sciences Research Ethics Board in 2009 (Appendix B) and each of the 14 organizations involved in the study in 2010 (Wong, 2011). Five hundred Ontario FLMs at 14 teaching hospitals were invited to participate by email and 159 (32%) completed the online survey examining participant role, key work outcomes, and demographics. The FLM position was defined as individuals with direct line responsibility for patient/resident care units with staff nurses and other care providers reporting directly to them and who have responsibility for hiring and performance management.

To determine the appropriate sample size, a post hoc power analysis using G*power 3.1 (Faul, Erdfelder, Lang, & Buchner, 2007) was conducted setting the alpha level at 0.05, the power level at 0.80, with a moderate effect size of 0.15, and two predictors resulting in 68 participants required for this analysis.

Sample demographics (*n*=159) are presented in Table 1. The majority of FLMs were registered nurses (84%), female (92%), and the average age was 48.10 (*SD* = 6.9) years. Most managers were educated at the Bachelor's (43.4%) or Master's degree (39%) level. The most common unit practice area was adult acute care (64.2%) followed by both pediatric acute care (10.7%) and mental health (10.7%). The average number of years of in the

respective profession was 24.37 (*SD* = 7.94) years and 8.40 (SD = 6.90) years in the FLM

role. Managers had on average 77.42 direct staff reports. For comparison, the average age of

Table 1.

Demographic Characteristics (N=159)

Demographic		Frequency (*n*)	Percent %
Gender	Female	143	92.3
	Male	12	6.7
Professional Background	RN	134	84.3
	Allied Health	18	11.3
	Other	7	4.4
Highest Level of Education	Bachelor's Degree	69	43.4
	Master's Degree	62	39.0
	Diploma/Certificate	28	17.6
Type of Unit	Adult Acute Care	102	64.2
	Pediatric Acute Care	17	10.7
	Mental Health	17	10.7
	Geriatric/Complex C.C. /Long-term Care	12	7.5
	Rehabilitation	11	6.9

Demographics	*N*	Mean	SD
Age	156	48.10	6.98
Years of experience:			
Profession	158	24.37	7.94
Frontline manager	158	8.40	6.90
Manager at Current Facility	158	6.41	5.87
Number of Direct Reports	154	77.42	45.12

nurses in the province is slightly lower at 45.5 years and the percentage of male nurses in the

province at 5.8% is also slightly lower than the demographics represented in this study

(CNO, 2013). Overall, the demographic profile of this sample is similar to that of a 2008

study (Laschinger et, al., 2008) examining the structure and impact of nursing management

in Canadian hospitals in which the average age of FLMs was slightly higher at 47.1 years

(*SD*=7.1), average years as an FLM was slightly lower at 6.6 years (*SD*=6.5) and 5.1 % of

FLMs were male.

Instruments

The main study variables were measured using three standardized self-report instruments and are included in Appendix A. Perceived organizational support was measured using the shortened version (9-item) of the 17-item *Perceived Organizational Support Scale* (POS) (Eisenberger et al., 1986). This instrument measures employees' generalized beliefs that their organization cares about their well-being and values their contributions (Eisenberger et al., 1986). The shortened version consists of 9 items rated on a 7-point Likert scale that ranges from 1 (strongly disagree) to 7 (strongly agree). Higher scores represent higher POS. Seven items have positive wording and two items have negative wording. Results are obtained by averaging all nine items. Eisenberger et al. (1986) reported POS validity was supported by positive correlations with job satisfaction, organizational commitment, and negatively with turnover intention, role stress, and emotional exhaustion. In a study examining perceived organizational support and leader-member exchange, Wayne, Shore, and Lyden, (1997) reported a Cronbach's alpha score of .93. In this study, Cronbach's alpha score for POS was also .93.

Work engagement was measured using the short version (9 item) of the original 17 item *Utrecht Work Engagement Scale,* (UWES) which was developed by Schaufeli and Bakker (2003). Three subscales measuring the positive dimensions of vigor, dedication and absorption each contain 3 items rated on a 7-point Likert scale ranging from 0 (never) to 6 (a lot). For each item participants are asked "how often they feel this way about their job". All items in each subscale are averaged to produce a subscale score from zero to six with higher scores demonstrating greater work engagement. A total work engagement score is created from the average of all items in the scale ranging from zero to six. The short version of the

UEWS has been previously tested using data (*n*= 9404), from five studies including a three year longitudinal study (*n*= 2555), has good construct validity and therefore, the work engagement measurement results of this instrument provide a highly stable indicator of occupational well-being (Seppalla et al., 2009). Confirmatory factor analysis has supported the three factor structure of this instrument (Schaufeli et al., 2002). Previous studies have produced Cronbach's alpha subscale values that range between .60 and .92 and total scale values that range between .64 and .92 (Schaufeli et al., 2006). In this study, the Cronbach's alpha reliability for the total UWES was .89 and ranged from .67 to .89 for subscales (Table 2).

Job satisfaction, the employee's general affective reaction to his or her job, was measured using a modified version of Quinn & Sheppard's (1974), *Global Job Satisfaction Survey* (GJS), (Pond & Greyer, 1991; Rice, Gentile, & McFarlin, 1991). This 6-item instrument uses a 5-point Likert scale that ranges from 1 (definitely not take the job) to 5 (definitely take the job). Higher scores represent higher perceptions of the job satisfaction construct. Results are obtained by averaging all items for a final score out of 5. Construct validity was supported by positive correlations of the GJS with satisfaction with job components, promotion, pay, interactions with supervisor and co-workers, job freedom, learning opportunities, and degree of decision making (Pond & Geyer, 1991; Rice et al., 1991). Two previous studies produced coefficient alpha scores of .89 (Pond & Geyer, 1991) and .83 (Rice, et al., 1991). In this study, Cronbach's alpha was .92.

Data Collection

All eligible FLMS (*n*=500) who worked at 14 academic teaching hospitals in Ontario were invited to participate. The study sites represented a broad range of hospital types

described as acute care, rehabilitation or complex continuing care, pediatric acute care, geriatric/long-term care, and mental health. Data collection occurred between May 2010 and March 2011. Study implementation start dates for the 14 organizations were staggered over the 11 month period. A combination of email recruitment letters and flyers were sent by the research team to site CNO's and their site facilitators for local distribution. Participants were given confidential PIN number access to an electronic online survey tool that included a demographic questionnaire as well as the standardized instruments measuring perceived organization support, work engagement and job satisfaction.

Data Analysis

The Statistical Package for Social Sciences (SPSS) software version 21 was used to analyze the data (IBM Corp, 2012). The means, standard deviations and ranges for all scores on all scales were calculated. Consistent with the assumptions outlined in Munro (2005), data were normally distributed and linear relationships existed among the major study variables, perceived organizational support, work engagement, and job satisfaction. Less than 1% of the data was missing and these values were missing completely at random. Descriptive statistics and reliability estimates (Cronbach's alpha) for all major study variables were calculated. For all demographic information, correlations, means, and standard deviations were generated. Pearson correlation was used to analyze the relationships between the demographics variables of age, years of experience in the profession, years of experience years as frontline manager, years as manager at present facility, years of employment experience at this facility, number of staff reporting to the manager and the major study variables. The relationship between the categorical demographic of gender and the major study variables were analyzed with an independent

sample t-test. Analysis of variance (ANOVA) was used to assess the demographic variables of education and professional background with the major study variables. The hypothesis was tested using hierarchical multiple linear regression and mediation analysis. The level of significance was set at $p < .05$.

Baron and Kenny's (1986) mediation model was the method used to test the hypothesis. In order to establish mediation, four conditions are necessary: (1) the independent variable is correlated with the dependent variable; (2) the independent variable and mediator variables are significantly related; (3) the mediator and dependent variables are significantly related; and (4) the relationship between the independent and dependent variables are decreased (partial mediation) or removed and nonsignificant (full mediation) with the addition of the mediator (Barron & Kenny, 1986). A Sobel test (Appendix C) was performed using Soper's (2014) online Sobel test calculator for the significance of mediation (Sobel, 1982). This calculator uses the Sobel test to calculate whether a mediator variable significantly carries the influence of an independent variable to a dependent variable; i.e., whether the indirect effect of the independent variable on the dependent variable, through the mediator variable is significant (Sobel, 1982; Soper, 2014).

Results

Descriptive Results

The major study variable means, standard deviations and reliability coefficients are displayed in Table 2. Managers reported moderately positive POS ($M = 4.4$, $SD = 1.10$). Laschinger et al., (2006), reported similar results in their study examining middle managers ($M = 4.76$, $SD = 1.03$). In a more recent study, Laschinger et al., (2011), reported mean scores for middle managers similar to those in this study ($M = 4.16$, $SD = 1.11$) but lower levels for

frontline managers (*M*=3.77, *SD*=1.19). Results (*M*=3.96, *SD*=1.30) were also lower in a study examining a general nursing population (Mallette, 2011).

Frontline managers were moderately engaged in their work (*M* = 4.3, *SD*=.86). For the subscales of the UWES, managers scored absorption highest (*M* = 4.54, *SD*=.921) followed by dedication (*M*=4.44, *SD*=1.02) and vigor (*M*=3.97, *SD*=1.11). Similar total UWES score results (*M*=4.29, *SD*=1.01) were reported in a recent study examining Belgian FLMs (*n*=365) (Van Bogaert et al., 2014). Warshawsky et al. (2012) reported a significantly higher UWES total mean in a sample of nurse managers (*M*=6.01, *SD*=0.83) but this higher result could be related to the 8-point scale with a 0-7 range that the authors used in their study design instead of the standard 0-6. In a study examining a general registered nurse population, Wong, et al. (2010) reported lower scores for UWES (*M*=4.01, *SD*=0.96), absorption (*M*=3.94, *SD*=1.09) and vigour (*M*=3.65, *SD*=1.17) and a similar dedication score, (*M*=4.45, *SD*=1.02).

In this sample, FLMs reported a moderate level of job satisfaction (*M*=3.63, *SD*=.86) and this was comparable to Laschinger et al.'s (2008) findings (*M*=3.54, *SD*=.91) using the same tool in a national sample of FLMs. Wong and Laschinger (2012) reported only slightly higher job satisfaction findings (*M*=3.65, *SD*= 1.01) using the same measure in a sample of 280 Ontario acute care staff nurses.

Relationship of Demographic Variables to Major Study Variables

There were no significant relationships found between the major study variables and the demographic variables of age, gender, education, professional background, the number of direct reports, or years of experience in the profession, in frontline management, as manager at their present facility, or as an employee at their present facility.

Additional Analysis of Major Study Variables

Pearson correlation was used to analyze the relationships among all the major study variables and all were significant (Table 2). Perceived organizational support was positively related to both work engagement ($r=.37$, $p<0.01$) and job satisfaction ($r=.48$, $p<0.01$). Perceived organizational support was also significantly related to all components of work engagement with dedication ($r=.38$, $p<0.01$) being the strongest correlation, followed by vigor ($r=.33$, $P<0.01$) and absorption ($r=.22$, $p<0.01$).

Table 2.

Means, Standard Deviations, Reliability Analysis and Correlation Matrix (N=159)

Variable	*M*	*SD*	α	1	2	3	4	5
1. **POS**	4.40	1.20	.93					
2. **UWES**	4.32	.87	.89	.37**				
3. Vigour	3.98	1.11	.89	.33**	.90**			
4. Dedication	4.44	1.02	.85	.38**	.92**	.83**		
5. Absorption	4.54	.92	.67	.22**	.72**	.40**	.50**	
6. **GJS**	3.62	.86	.92	.48**	.60**	.57**	.62**	.32**

*$p < 0.05$, two-tailed ** $p < 0.01$, two-tailed, *M* = mean, *SD* = standard deviation, α = Cronbach's

Work engagement was strongly related to job satisfaction ($r=.60$, $p<0.01$). In terms of relationships between UWES subscales and job satisfaction, again, dedication ($r=.63$, $p<0.01$) was strongest followed by vigor ($r=.57$, $p<0.01$) and absorption ($r=.32$, $p<0.01$). Giallonardo et al. (2010) also found a positive albeit much weaker relationship between work engagement and job satisfaction in their study examining new graduate nurses ($r=0.39$, $p<0.01$) as well as weaker correlations for the subscales, dedication ($r=0.49$, $p<0.01$), vigor ($r=0.42$, $p<0.01$) and absorption ($r=0.16$, $p<0.01$).

Test of the Hypothesis

In order to test the stated hypothesis; that work engagement partially mediates the relationship between POS and job satisfaction, Baron and Kenny's (1986) method of mediation analysis was used. Three simple linear regressions, (Table 3) and one hierarchical multiple regression (Table 4) were performed.

In the first equation, POS was significantly related to the dependent variable job satisfaction (β=.48, p<0.001), meeting the requirements of Condition 1. In the second equation, POS was significantly related to the mediator variable work engagement (β=.37, p<0.001), meeting the requirements of Condition 2. In the third and final equation, work engagement was significantly related to the dependent variable job satisfaction (β=.60, p<0.001), thus meeting the requirements of Condition 3.

Table 3.

Conditions 1-3 (Barron & Kenny, 1986) Coefficients of the Linear Regressions

Conditions	Variables	R^2	F	B	SE	β	Sig.
Condition 1	Perceived Organizational Support (dependent variable: Job Satisfaction)	.23	46.17***	.35	.05	.48	<.001
Condition 2	Perceived Organizational Support (dependent variable: Work Engagement)	.14	24.37***	.27	0.54	.37	<.001
Condition 3	Work Engagement (dependent variable: Job Satisfaction)	.36	88.63***	.60	0.63	.60	<.001

Note: ***p<0.001

In Model 1 of Condition 4 (Table 4), POS was used as the predictor of job satisfaction. In Model 2 of Condition 4, work engagement, the mediator, was added along with POS as predictors of job satisfaction. The standardized beta coefficient (β) for the

predictor variable (perceived organizational support) should be reduced to zero and become

non-significant when the mediating variable is entered in the second model in order for the

full mediation condition to be met (Judd & Kenny, 2010). Partial mediation is met when the

standardized beta coefficient (β) for the predictor variable is reduced yet still significant

when the mediating variable is entered in the second model (Judd & Kenny, 2010). A Sobel

test is then calculated to confirm significance (Judd & Kenny, 2010).

Table 4.

*Condition 4 (Barron & Kenny, 1986) Coefficients of the Hierarchical Multiple Linear Regression*

Condition 4	Variables	R^2	R^2 Change	F	F Change	B	SE	β	Sig.
Model 1	Perceived Organizational Support	.23		46.17***		.35	.05	.48	<.001
Model 2	Perceived Organizational Support &				56.87***	.22	.05	.30	<.001
	Work Engagement	.44	.21			.49	.07	.49	<.001
	(dependent variable: Job Satisfaction)								

Dependent variable: Job Satisfaction. Note: ***p<0.001

In model 1, POS was significantly related to job satisfaction (β=.48, p<0.001) and

accounted for 23% variance in job satisfaction. In Model 2, when work engagement was

added as a predictor of job satisfaction, POS was still a significant predictor but β was

reduced (β=.30 p<0.001), showing partial mediation. Work engagement was also a

significant predictor (β=.49, p<0.001) and accounted for an additional 21% of the variance of

job satisfaction. Both POS and work engagement accounted for 44% of the variance in job

satisfaction. A Sobel test (Appendix C), was performed using Soper's (2014) online Sobel

test calculator and significant results (z=5.57, p<0.001) confirmed that work engagement

partially mediated the relationship between POS and job satisfaction (Sobel, 1982; Soper,

2014). Thus, the hypothesized model was supported because work engagement partially

mediated the relationship between frontline healthcare managers' perceived organizational

support and their job satisfaction (Figure 3).

Figure 3. *Final Model*
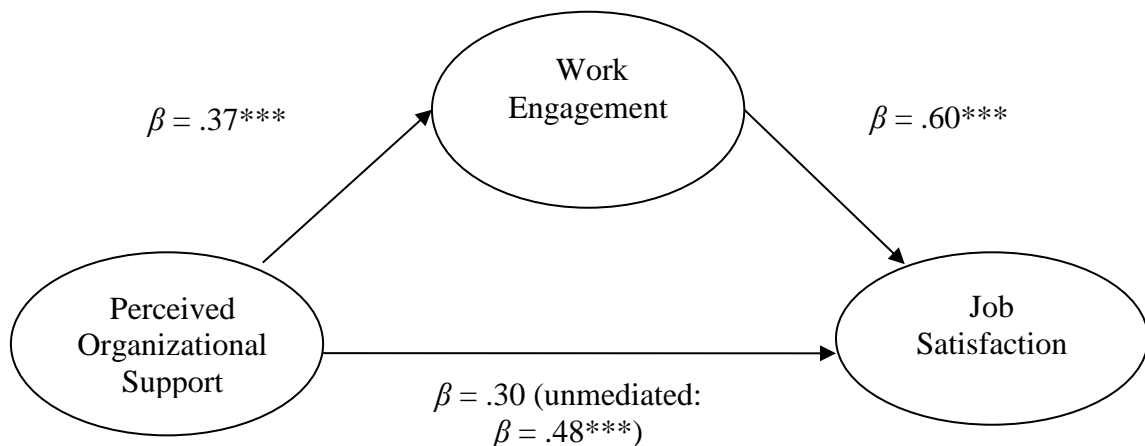
Note. *P* < .001***

Discussion

The purpose of this study was to investigate the relationships among FLM perceived

organizational support, work engagement and job satisfaction. More specifically, the study's

ultimate goal was to determine, utilizing hierarchical multiple linear regression, whether

work engagement partially mediated a relationship between POS and job satisfaction.

Results of the tested model support previous research devoted to the JD-R model's

motivational process which specifies that job resources (POS) are positively associated with

motivationally-linked concepts (work engagement) leading to positive organizational

outcomes, in this case, job satisfaction (Demerouti & Bakker, 2011; Laschinger, Grau et al., 2011; Schreurs et al., 2011; Xanthopoulou et al., 2007).

The hypothesis was supported in that work engagement partially mediated the relationship between POS and job satisfaction. This suggests that when FLMs perceive that their organization supports their work in terms of providing opportunities and resources, values their contributions, and cares about their well-being, they will experience higher energy in and dedication to their work which in turn will increase their job satisfaction. Work engagement did not fully mediate the relationship between perceived organizational support and FLM job satisfaction suggesting there may be additional means through which POS influences job satisfaction. However, manager work engagement is a critical variable in the POS to job satisfaction relationship. Rhoades and Eisenberger (2002) stated that if employees received fairness, supervisor support, organizational rewards and favourable job conditions, this would lead to POS. Thus, POS would not only create a sense of meaning and purpose for the employee but also an increased sense of competence leading to greater interest in their work, ultimately leading to positive outcomes for both employee and organization (Eisenberger, Armeli, Rexwinkel, Lynch, & Rhoades, 2001; Eisenberger, Rhoades, & Cameron, 1999; Rhoades & Eisenberger, 2002). Organizational support was also directly related to job satisfaction which has been demonstrated in other studies (Lee & Cummings, 2008; Patrick & Laschinger, 2006; Rhoades & Eisenberger, 2002). As far as is known, there is no other existing literature that tests the mediation effect of work engagement on the relationship between POS and job satisfaction of FLMs in healthcare.

The FLMs in this sample had moderate perceptions of their organization's value for their contributions and caring about their well-being (M=4.40, SD=1.20). Similar levels of

POS were reported by other authors: Laschinger et al.'s (2006) study examining antecedents and consequences of FLM organizational support (*M*=4.4. *SD*=1.09); Laschinger, Wong et al.'s (2011) study of leadership practices, POS (*M*= 4.16, *SD*=1.11) and empowerment on FLM outcomes; and Patrick and Laschinger's (2006) study which examined the effects of structural empowerment and POS (*M*=4.76, *SD*=1.03) on the role satisfaction of nurse managers, all demonstrating consistency with the literature. Furthermore, POS of FLMs correlated positively with job satisfaction in this study (*r*=.48, *p*<0.01) similar to Laschinger et al.'s (2006) results (*r*=0.40) supporting the assumption that managers who feel supported, valued, and cared for by their organizations enjoy higher levels of satisfaction in their jobs. Finally, in their systematic review examining frontline nurse managers, Lee and Cummings (2008) stated that managerial organizational support is key to their job satisfaction.

Frontline managers were moderately engaged in their work. In the subscales of the UWES, they scored highest on the absorption subscale followed by dedication and finally vigor. The lower vigor scores are somewhat concerning as this may indicate a tendency toward burnout since vigor is directly opposed to exhaustion, which is a core burnout dimension (Maslach et al., 2001; Schaufeli et al., 2006). However, the mean subscale findings were higher than results in a recent study examining work engagement of a population of nursing professionals that included nurse managers (Jenaro et al., 2011). It is important to note that there were no significant differences in levels of engagement between professional categories which included registered nurses, nurse managers and certified nursing assistants, demonstrating that these results can be considered comparable with those in this study of FLMs (Jenaro et al., 2011). Conversely, the level of work engagement in this study appeared to be lower than those in a study examining the influence of interpersonal

relationships on nurse managers work engagement and proactive work behaviour (Warshawsky et al., 2012). However, since the authors of this study designed the UWES using an 8-point scale with a 0-7 range instead of the standard 0-6, this could explain why the results (*M*=6.01, *SD*=0.83) seemed higher than expected (Warshawsky et al., 2012).

Moderate job satisfaction was reported by FLMs and 73% of respondents rated feeling satisfied or very satisfied with their jobs. Similar results supporting the findings in this analysis were determined in a recent study examining nurse manager job satisfaction and intent to leave, where 70% were very satisfied or satisfied however, an equal number of respondents were planning to leave their jobs within the next 5 years (Warshawsky & Havens, 2014). This suggests that even though job satisfaction is positively associated with retention in direct care nurses (Cummings et al., 2010; Currie & Carr, 2012), this may not always be the case in FLMs and more research exploring job satisfaction antecedents and consequences such as turnover intention is indicated (Warshawsky & Havens, 2014).

Perceived organizational support of FLMs was positively related to both work engagement and job satisfaction. Previous findings support the results of this study which demonstrated that POS positively predicts job satisfaction (Jenaro et al., 2010; Rhoades & Eisenberger, 2002; Laschinger et al., 2006). Healthcare organizations need to invest significant effort in voluntarily acknowledging the valuable contributions their FLMs make and also by endeavouring to facilitate conditions that promote FLM well-being (Eisenberger et al., 1986). Therefore, a healthy and empowering work environment with access to resources should be an organizational priority in order to improve FLM job satisfaction (Laschinger et al., 2006). However, inadequate financial resources, larger spans of control, and limited budgets that preclude resources to ensure quality of care are potential deterrents

which may negatively influence an organization's ability to do so (Brown et al., 2012).

Therefore, it is crucial that attention be directed to strategies that ideally require little or no

extra cost to organizations such as the identification and facilitation of role structure changes

and other factors that increase the job satisfaction of FLMs in today's highly complex and

increasingly stressful work environments. Two examples of financially sensitive approaches

are illustrated in the findings of Lee and Cummings' review study, (2008) which determined

that job satisfaction may be improved by increasing organizational support and empowering

managers in their decision-making participation.

Consistent with the theoretical framework of the JD-R model, the motivational

resource of work engagement plays an important positive role in FLM job satisfaction in this

study. Bressler (2012) referred to the closely linked relationship between work engagement

and job satisfaction of nurses and also noted that research on FLM engagement and specific

factors that affect their own work-related practice including commitment, retention, and

performance is limited. However, staff nurses who have positive contact with engaged

FLMs may experience a direct positive influence on their own work engagement which is

expressed through an increase in their job satisfaction, less turnover, and less work-related

stress. Therefore, effects of FLM engagement with their nurses are crucial to the

organization's overall culture of engagement and linked to better staff outcomes (Bressler,

2012).

Limitations

Since this study used a cross-sectional design, the ability to clearly discern cause and

effect is limited to the foundational theoretical associations and co-variation among variables

(Polit & Beck, 2008). The low response rate of 32% and the convenience sample limit

generalizability of findings due to concerns about potential selection bias and sample

representativeness. The use of electronic, web-based surveys alone can result in an up to

23% lower rate of response as opposed to mail surveys (Shih & Fan, 2008) and possible

response burden for busy FLMS may have precluded a higher response rate. Since the

results of this study were obtained via self-report surveys, there is the potential for bias since

respondents may possibly base their answers on the way they wish to be perceived or

perceived expectations for the socially desirable response (Polit & Beck, 2008).

Organizational level effects on outcomes were not accounted for and thus did not allow for

attending to the hierarchical nature of the data (Wong et al., 2015).

Conclusion

The results of this study support the use of the JD-R model's motivational pathway to

test the relationship between job resources (perceived organizational support), motivation

(work engagement), and work outcomes (job satisfaction). The findings provide support for

the theoretical links between perceived organizational support, work engagement, and job

satisfaction and suggest that managers who perceive organizational support experience

increased work engagement and consequently, greater job satisfaction. Findings can be used

by healthcare organizations to support policy changes that increase the recruitment and

retention of frontline managers through creation of positive working conditions. Because

managers are facing stressors related to complex healthcare environments while overseeing a

multigenerational workforce of cultural diversity, there is a need to ensure appropriate

supports for these pivotal roles in quality care delivery (Bressler, 2012). Appropriate policy

changes and attention to related aspects of manager working conditions and job satisfaction

can positively influence the workplace environment and ultimately affect organizational

performance and patient outcomes.

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Chapter Three

Discussion

The purpose of this study was to examine the relationship among frontline managers' perceived organizational support (POS), work engagement and job satisfaction. Study results showed that work engagement partially mediated the positive relationship between perceived organizational support and job satisfaction. Perceived organizational support and work engagement were significant predictors of job satisfaction accounting for 44% of the variance in job satisfaction. These findings have relevance to frontline managers and the healthcare organizations they work for, as well as government stakeholders, policy-makers, educators and especially the patients who ultimately depend on them to successfully carry out their major responsibilities related to creating safe and healthy work environments. The implications of these findings for theory, practice and research are examined below.

Implications for Theory

The key to the development of excellence in quality patient care is strong leadership and nurses and other health professionals in management positions at the unit level play a key role in creating effective leadership in healthcare organizations (Aaronson et al., 2013; Laschinger et al., 2013). The FLM role significantly influences patient safety outcomes and nursing work outcomes such as job satisfaction, work control, role overload, and unit recruitment and retention so its importance cannot be underestimated (Wong et al, 2015). In this study, FLM perceived organizational support positively predicted both work engagement and job satisfaction. This finding supports the JD-R model's positive motivational pathway that specifies that a job resource (organizational support) increases motivation (work engagement) and ultimately contributes to a positive organizational outcome, job satisfaction

(Hakanen & Roodt, 2010; Shreurs et al., 2011). This study's findings supported previous literature in which the JD-R model's motivational pathway was tested with similar results underscoring the salience of a motivation-based variable in the model's motivational process (Demerouti & Bakker, 2011; Laschinger, Grau, Finegan, & Wilk, 2011; Schreurs et al., 2011; Xanthopoulou et al., 2007). The second contribution of this study is the finding that work engagement partially mediated the relationship between POS and job satisfaction. Previous studies have demonstrated the mediating effect of work engagement between resources and outcomes (Bakker, Demerouti, & Schaufeli, 2003; Hakanen, Bakker, & Schaufeli, 2006; Laschinger, Grau et al., 2011; Warshawsky, Havens & Knafl, 2012: Wong, Laschinger & Cummings, 2010) but few studies have involved managers. This result demonstrates how work engagement partially transmits the effect of a key job resource (POS) on the job satisfaction of the frontline manager. As far as is known, this is the first study to date, examining POS, work engagement and job satisfaction in frontline managers using the JD-R model. Results of this study fill a gap in the literature and provide support for the importance of POS as a contributor to manager work engagement and ultimately job satisfaction.

Implications for Practice

The importance of positive working conditions to promote FLM satisfaction in their roles cannot be stressed enough since their job satisfaction positively predicts other beneficial job outcomes such as organizational commitment, perceived organizational support, involvement in decision-making, acceptance of higher levels of responsibility, and intent to stay (Acorn, Ratner & Crawford, 1997; Littell, 1995; Way et al., 2007; Laschinger et al., 2008). Frontline managers in this study reported only moderate job satisfaction but the strong relationships that have been identified in the findings suggest that when FLMs

perceive organizational support and feel engaged in their work, there is a resultant increase in job satisfaction. Since managers play a vital role in creating and maintaining healthy work environments for staff and patients, healthcare organizations need to strive to provide environments that support, encourage, and are conducive to higher levels of FLM work engagement and job satisfaction. The presence of POS positively predicted both work engagement and job satisfaction and so it behooves healthcare organizations to become aware of discrepancies and react swiftly with the effective facilitation of this important job resource in their FLMs. Managers in this study had only moderate level perceptions that their organization valued their contributions and cared about their well-being, providing evidence that although satisfactory, there is room for improvement and the need for strategies that increase feelings of organizational support. Consistent with the application of the JD-R as a motivational process, the positive prediction of job satisfaction by POS is supported by Patrick and Laschinger's (2006) previous research examining middle managers. This corroborative finding underpins the urgency for healthcare agencies to pay closer attention to the work stress that their managers experience on the job since the quality of the work environment for FLMs plays a large role in their retention (Laschinger, Purdy, Cho, & Almost, 2006).

Although job demands were not examined in this study, previous studies of the motivational pathway of the JDR model have shown that resources may also have a buffering effect on the influence of high job demands on stress and burnout (Schaufeli & Bakker, 2004a; Laschinger, Grau et al., 2011). This means that organizations that implement strategies to ensure FLMs experience high POS will also be helping to address the untoward effects of role stress and demanding workloads. For example, structural empowerment has

been found to increase FLM perceived organizational support so the healthcare organizations

that provide access to empowerment structures such as information, support, resources

needed to do the job, and opportunities to learn and grow may contribute to higher POS and

positive outcomes such as trust, job satisfaction and intention to stay (Laschinger, Wong et

al., 2011). When managers feel they have been assigned the appropriate authority and

autonomy to carry out their role and are supported in their decision making responsibilities,

they feel valued by the organization, a hallmark characteristic of perceived organizational

support which contributes to positive outcome, job satisfaction, commitment and lower

intention to leave (Laschinger et al., 2008). Since higher spans of control may be associated

with lower levels of perceived organizational support and job satisfaction, organizations

should address this by monitoring and setting reasonable expectations of the manager's role

and an appropriate span of control in order to prevent role overload (Laschinger et al., 2008;

Wong et al., 2015). When determining strategies that will increase the POS of FLMs,

healthcare organizations should strongly consider the value of paying particular attention to

the enhancement of rewards such as respect, job security, autonomy, seeking their opinions,

involvement in organizational decision-making, and offering fair salaries as this will

ultimately lead to job satisfaction as well as other positive outcomes including organizational

commitment, personal accomplishment, effort, quality of care, an increase in energy level

and decreased emotional exhaustion and physical symptoms (Laschinger et al., 2006).

As mediator of the relationship between POS and job satisfaction, the role of work

engagement is also critical when considering future implications for FLM practice and again,

the healthcare organization's responsibility in this regard is equally important. Consistent

with the application of the JD-R as a motivational process, work engagement positively

predicted the dependent variable, job satisfaction, which is supported by previous literature,

albeit involving new graduates and experienced nurses, showing that this study has addressed

a gap in the healthcare management literature (Giallonardo et al., 2010; Jenaro, Flores,

Orgaz, & Cruz, 2010). Frontline managers in this study were moderately engaged so there is

also an opportunity to address how this can be improved. Since lack of engagement along

with perceived lack of support is linked with high turnover rates, it is in the organization's

best interest to implement strategies that will prevent this (Bressler, 2012). Executive-level

healthcare leaders have the ability to use supporting evidence, such as this study, as a

framework to develop a culture of engagement for managers which will help to facilitate and

sustain a level of trust and an organizational caring environment for patients and nurses and

other care providers (Bressler, 2012). However, the healthcare organization's role in

affecting change for a successful outcome is just part of the overall solution.

Managers can also be considered agents for change and they, themselves must take

responsibility to role model work engagement which may contribute to staff performance and

positive organizational outcomes (Gray & Shirey, 2013). Some practice recommendations to

increase work engagement of FLMs were described by Gray and Shirey (2013) and included

the development of a plan to facilitate both manager and staff nurse communication, the

introduction of education directed towards a better understanding of FLM and staff nurse

engagement, and the production of scholarly, evidence-based literature related to their

practice-based role, highlighting their engagement and documenting their contributions.

Cathcart, et al. (2004) identified that decreased staff nurse work engagement was linked to

larger spans of control for managers. Therefore, organizations must create and implement

strategies that focus on reducing FLM span of control and maintaining them at levels

conducive to achieving excellent job and unit outcomes while also ensuring that managers have the time and energy to facilitate staff engagement in ongoing workplace development (Wong et al., 2015). Hiring more managers to divide the heavy and possibly dangerous workload is a bold strategy, but one that should be seriously considered in spite of the probable increase in organizational costs which could be offset by improved patient and staff outcomes.

Organizations need to take this evidence seriously, lobbying for an increase in government financial support in order to successfully address the recommendations in the literature to meet the needs of the FLM by significantly increasing their organizational support, work engagement, and job satisfaction which will ultimately lead to an increase in positive organizational outcomes consistent with the tenets of the JD-R model. In addition FLMs themselves need to advocate for safe and healthy working conditions and this may include the expectation that managers should review and share evidence-based literature that focuses on their management engagement role and gives testimony to their contributions (Gray & Shirey, 2013).

Recommendations for Future Research

There is a need for researchers to build upon existing literature to address the gaps in evidence that will broaden understanding of the FLM's increasingly complex and important role in today's healthcare organizations. Specifically there is a need for more research that identifies other job resources that contribute to FLM work engagement and job satisfaction such as, coaching from their supervisor, increased autonomy, and leadership development opportunities. Longitudinal studies examining FLM perceived organizational support, work engagement, and job satisfaction are critical to show casual linkages. Larger sample sizes

would be helpful, especially if the population were drawn from a larger, Canada-wide study of FLMs. Inclusion of staff and patient outcome variables linking manager engagement and other work outcomes to high profile organizational performance indicators is warranted to show the connection between healthy, engaged managers and effective organizational operations (Wong et al, 2015). Finally, the design and implementation of an intervention study that focuses on the promotion of job satisfaction through engagement and organizational support strategies of FLMs would be a needed follow-up to the conclusions derived from this study.

Conclusion

The results of this study validate the motivational pathway of the Job Demands-Resources model which specifies that job resources function as motivators to stimulate personal growth and development, leading to the achievement of work goals (Demerouti et al., 2001). Consistent with the Job Demands-Resources theoretical framework, perceived organizational support of FLMs positively predicted their work engagement which in turn positively influenced their job satisfaction and also acted as a partial mediator of the relationship between perceived organizational support and job satisfaction (Demerouti & Bakker, 2011; Schreurs et al., 2011; Xanthopoulou et al., 2007). By paying close attention to and acting upon inconsistencies or deficits related to perceived organizational support and work engagement of frontline managers, healthcare organizations have the ability to improve and then capitalize on both, leading to greater job satisfaction of FLMs and the subsequent improvement in organizational outcomes that result.

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APPENDIX A

Study Instruments

A. 01   Demographic Questionnaire

A. 02   Perceived Organizational Support Scale

A. 03   Utrecht Work Engagement Scale

A. 04   Global Job Satisfaction Scale

Manager Demographics

1. Please indicate your age in years: _____

2. What is your gender? ☐　　Male　　　☐　　　Female

3. What is your professional background?
☐　RN
☐　LPN
☐　Social Worker
☐　Dietician
☐　Other (Please specify):_____

☐　Respiratory Therapist
☐　Business Manager
☐　Recreational Therapist
☐　Rehab Therapist (PT/OT)

4. What is your highest level of education?
☐　　Diploma/Certificate　☐　Bachelors Degree　☐　Masters Degree
☐　　PhD　　　　　☐　Other: _____

5. How many years of experience do you have in your profession? _____

(a) as a frontline manager? _____

(b) as a manager at this facility? _____

(c) of employment at this facility? _____

6. What type of unit do you work in?

7. Overall, how many staff (all categories) do you have reporting to you? Please state the actual number. _____

Perceived Organizational Support

(Eisenberger, Huntington, Hutchinson, & Sowa, 1986)

Listed below is a series of statements that represent possible feelings that individuals might have about the company or organization for which they work. With respect to your own feelings about the particular organization for which you are now working, please indicate the degree of your agreement or disagreement with each statement by checking one of the seven alternatives below each statement.

Please indicate the degree of your agreement or disagreement with each statement.	Strongly Disagree						Strongly Agree
1.	The organization strongly considers my goals and values.	1	2	3	4	5	6	7
2.	Help is available from the organization when I have a problem.	1	2	3	4	5	6	7
3.	The organization really cares about my well-being.	1	2	3	4	5	6	7
4.	The organization is willing to extend itself in order to help me perform my job to the best of my ability.	1	2	3	4	5	6	7
5.	Even if I did the best job possible, the organization would fail to notice. **R**	1	2	3	4	5	6	7
6.	The organization cares about my general satisfaction at work.	1	2	3	4	5	6	7
7.	The organization shows very little concern for me. **R**	1	2	3	4	5	6	7
8.	The organization cares about my opinions	1	2	3	4	5	6	7
9.	The organization takes pride in my accomplishments at work.	1	2	3	4	5	6	7

Scoring
- = sum and average of all items

Work & Well-being Survey (UWES) ©

The following 9 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) in the space after the statement. If you have had this feeling, indicate how often you feel 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.		0	1	2	3	4	5	6	
2.	At my job, I feel strong and vigorous.		0	1	2	3	4	5	6	
3.	I am enthusiastic about my job.		0	1	2	3	4	5	6	
4.	My job inspires me.		0	1	2	3	4	5	6	
5.	When I get up in the morning, I feel like going to work.		0	1	2	3	4	5	6	
6.	I feel happy when I am working intensely.		0	1	2	3	4	5	6	
7.	I am proud of the work that I do.		0	1	2	3	4	5	6	
8.	I am immersed in my work.		0	1	2	3	4	5	6	
9.	I get carried away when I'm working.		0	1	2	3	4	5	6	

Subscales:
- Vigor = #1, 2, &5
- Dedication = #3, 4, #7
- Absorption = #6, 8 & 9

Scoring
- = sum and average items for each subscale

Total scale score
- = sum and average of all items

Global Job Satisfaction

(Rice, Gentile, & McFarlin, 1991)

		Definitely not take the job				Definitely take the job
1.	If you had to decide all over again whether to take the job you now have, what would you decide?	1	2	3	4	5
		Not recommend at all				Recommend strongly
2.	If a friend asked if he/she should apply for a job like yours with your employer, what would you recommend?	1	2	3	4	5
		Very far from ideal				Very close to ideal
3.	How does this job compare with your ideal job?	1	2	3	4	5
		Not at all like I wanted				Just like what I wanted
4.	How does your job measure up to the sort of job you wanted when you took it?	1	2	3	4	5
		Not at all satisfied				Completely satisfied
5.	All things considered, how satisfied are you with your current job?	1	2	3	4	5
		Not at all				A great deal
6.	In general, how much do you like your job?	1	2	3	4	5

Scoring:

- Sum and average items for score out of 5

APPENDIX B

The University of Western Ontario Health Ethics Review Board (Ethics Review # 11628E,

Dec. 7th, 2009) and the respective ethics review boards of the 14 organizations involved in

the study (February 2010-January, 2011).

Office of Research Ethics

The University of Western Ontario
Room 4180 Support Services Building, London, ON, Canada N6A 5C1
Telephone: (519) 661-3036 Fax: (519) 850-2466 Email: ethics@uwo.ca
Website: www.uwo.ca/research/ethics

Use of Human Subjects - Ethics Approval Notice

Principal Investigator: Dr. C.A. Wong
Review Number: 16628E **Review Level:** Expedited
Review Date: November 20, 2009
Protocol Title: Examining the Relationships between Clinical Manager Span of Control and Manager and Unit Work Outcomes in Ontario Academic Hospitals
Department and Institution: Nursing, University of Western Ontario
Sponsor: THE MINISTRY OF HEALTH LONG-TERM CARE
Ethics Approval Date: December 07, 2009 **Expiry Date:** March 31, 2012
Documents Reviewed and Approved: UWO Protocol, Letters (4) of Information and Consent (FLM #1, FLM #2, Focus Groups, Interviews)

Documents Received for Information:

This is to notify you that The University of Western Ontario Research Ethics Board for Health Sciences Research Involving Human Subjects (HSREB) which is organized and operates according to the Tri-Council Policy Statement: Ethical Conduct of Research Involving Humans and the Health Canada/ICH Good Clinical Practice Practices: Consolidated Guidelines; and the applicable laws and regulations of Ontario has reviewed and granted approval to the above referenced study on the approval date noted above. The membership of this REB also complies with the membership requirements for REB's as defined in Division 5 of the Food and Drug Regulations.

The ethics approval for this study shall remain valid until the expiry date noted above assuming timely and acceptable responses to the HSREB's periodic requests for surveillance and monitoring information. If you require an updated approval notice prior to that time you must request it using the UWO Updated Approval Request Form.

During the course of the research, no deviations from, or changes to, the protocol or consent form may be initiated without prior written approval from the HSREB except when necessary to eliminate immediate hazards to the subject or when the change(s) involve only logistical or administrative aspects of the study (e.g. change of monitor, telephone number). Expedited review of minor change(s) in ongoing studies will be considered. Subjects must receive a copy of the signed information/consent documentation.

Investigators must promptly also report to the HSREB:
   a) changes increasing the risk to the participant(s) and/or affecting significantly the conduct of the study;
   b) all adverse and unexpected experiences or events that are both serious and unexpected;
   c) new information that may adversely affect the safety of the subjects or the conduct of the study.

If these changes/adverse events require a change to the information/consent documentation, and/or recruitment advertisement, the newly revised information/consent documentation, and/or advertisement, must be submitted to this office for approval.

Members of the HSREB who are named as investigators in research studies, or declare a conflict of interest, do not participate in discussion related to, nor vote on, such studies when they are presented to the HSREB.

APPENDIX C

Sobel Test Calculator Results

(Soper, 2014)

Curriculum Vitae

NAME: ALEXANDRA PETERSON R.N., B.Sc.N., M.Sc.N.

EDUCATION

2015:	M.Sc.N.	University of Western Ontario London, ON
2008:	B.Sc.N.	McMaster University Hamilton, ON
1984:	Operating Room, Certificate Program	George Brown College Toronto, ON
1981:	Registered Nurse Diploma Program	George Brown College Toronto, ON

PROFESSIONAL EXPERIENCE

Operating Room (Staff R.N.)
Toronto General Hospital
Toronto, ON

Thoracic Surgery & Step-Down Unit (Staff R.N.)
Toronto General Hospital
Toronto, ON

HONOURS & AWARDS

University of Western Ontario	2-Year, Full-time Education Scholarship
Sigma Theta Tau International Honour Society of Nursing:	Iota Omicron Chapter (UWO) London, ON
McMaster University B.Sc.N. Program:	Summa Cum Laude
Golden Key International Honour Society:	McMaster Chapter Hamilton, ON (Lifetime member)

PROFESSIONAL ORGANIZATIONS

College of Nurses of Ontario,
RNAO
Sigma Theta Tau International