Job satisfaction among staff nurses in relation to leader empowering behaviors, structural empowerment and psychological empowerment

by

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Abstract

Job satisfaction is one of the most important factors in health care organizations as it is related to organizational effectiveness, quality patient care and other organizational outcomes. Job satisfaction is a multifaceted concept associated with many factors such as leader empowering behaviors, structural empowerment and psychological empowerment. Although recognition of the importance of job satisfaction in health care has led to considerable research on nurses' job satisfaction, nurses continue to report high-levels of job dissatisfaction. Moreover, there has been limited research on the effects of psychological empowerment on Canadian nurses' job satisfaction. Hence, this cross-sectional, correlational study was undertaken to answer two research questions; "How is job satisfaction among staff nurses associated with leader empowering behaviors, structural empowerment and psychological empowerment?" and "What are the relationships between the four psychological cognitions of psychological empowerment (Meaning, Competence, Self-determination and Impact) and each of the dimensions of nurses' job satisfaction after accounting for demographic characteristics, leader empowering behaviors and structural empowerment?" This study was a secondary analysis of data collected between 2007 and 2010 as part of the evaluation of the British Columbia Nursing Leadership Institute. A series of multiple regression analyses were conducted to answer the two research questions. Structural empowerment was found to be the strongest predictor of nurses' global job satisfaction and each dimension of job satisfaction, followed by the leader's use of empowering behaviors. Psychological empowerment also helped to predict job satisfaction among nurses, but the relationships were dimension specific. Two dimensions of psychological empowerment (competence and self-determination) helped to predict nurses' satisfaction with their relationships with colleagues, and their sense of self-determination and impact helped to predict

satisfaction with their working conditions. This study suggests that leaders should use strategies that help staff to feel psychologically empowered. For example, nurse leaders should encourage staff to participate in decision-making to help staff have a greater sense of autonomy and impact in the workplace which, in turn, should foster greater job satisfaction.

Preface

This thesis is a secondary analysis of data collected from 2007 to 2010 as part of the evaluation of the British Columbia Nursing Leadership Institute. The original research was funded through the Canadian Health Services Research Foundation (RC2-1612) with support from the British Columbia Ministry of Health Nursing Directorate, the Chief Nursing Officers and Vancouver Coastal Health Authority and Fraser Health Authority. This thesis is original, unpublished, independent work by the author, S-E. Lee. Ethical approval for this study was given by the University of British Columbia Behavioural Ethics Review Board: H13-02803.

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List of Abbreviations

CWEQ- II	Conditions for Work Effectiveness Questionnaire-II
JS	Job Satisfaction
LEB	Leader Empowering Behaviors
LEBS	Leader Empowering Behaviors Scale
MMSS	McCloskey/Muller Satisfaction Scale
PE	Psychological Empowerment
PES	Psychological Empowerment Scale
SE	Structural Empowerment

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Dedication

My thesis is dedicated to my beloved family especially my parents, my husband and my son. Thank you all for the endless love, support, understanding, motivation and sacrifice. My husband's support, and my mom and son's sacrifice made the completion of my study. My son, the most precious gift in my life, was the driving force of my studies. I sincerely love and appreciate you all.

Chapter 1: Introduction

1.1 Background

Nurses face many challenges in the Canadian health care system due to ongoing healthcare restructuring and policy reform (Cummings et al., 2010; Greco, Laschinger & Wong, 2006; Wagner et al., 2010). The challenges include fewer available resources, more complex patients, reduced opportunities for education and training, and increased job insecurity and job stress (Canadian Institute for Health Information, 2002). These difficulties yield negative effects on the health care system such as decreased nurse retention, increased nursing shortage, and increased recruitment costs for healthcare institutions (Hayes, Bonner, & Pryor, 2010; Laschinger, Finegan, & Shamian, 2001b; Laschinger, Finegan, & Wilk, 2009; Sellegren, Ekvall, & Tomson, 2008; Wagner, 2007). Hayes et al. (2010) noted that enhancing nurses' job satisfaction could be a solution for these adverse effects, especially for the nursing shortage.

Job satisfaction is one of the most important factors in organizations as it is related to organizational effectiveness (Cox, 2003). Job satisfaction in nursing is associated with nurse performance, quality of patient care (Abu Ajamien, Misener, Haddock, & Gleation, 1996; Ma, Samuels, & Alexander, 2003) and increased patient satisfaction (Aiken Clarke, & Sloane, 2002; Altier, & Krsek, 2006; Burtson, & Stichler, 2010). Therefore, enhancing the job satisfaction of nurses is important in health care.

Job satisfaction is a multifaceted concept associated with many factors such as working conditions, organizational support, leadership styles, leader empowering behaviors (LEB), structural empowerment (SE), and psychological empowerment (PE) (Laschinger & Finegan, 2005; Laschinger, Finegan, Shmian, &Wilk, 2004; Lu, While, & Barriball, 2005; Sellgren et al., 2008). The leaders' use of behaviors that empower staff contributes to work effectiveness by

enhancing employees' performance (Hui, 1994). Leader empowering behaviors directly affect the ability of staff to accomplish organizational goals, and this enhances organizational effectiveness (Conger & Kanungo, 1998; Sellgren et al., 2008). Use of leader empowering behaviors in nursing is essential since it creates supportive practice environments where nurses can perform best (Germain & Gomings, 2010). This, in turn, can lead to increased job satisfaction (Laschinger & Finegan, 2005; Laschinger et al., 2004).

Research has shown that structural and psychological empowerment are positively related to nurses' job satisfaction (Laschinger, Finegan, Shamian, & Wilk, 2001c; Laschinger & Havens, 1997; Leggat, Bartram, Casimir, &Stanton, 2010; Morrison, Jones, & Fuller, 1997). Structural Empowerment refers to workplace structures that support the job performance of employees and bring about positive outcomes in organizations (Laschinger, 2008; Waganer et al., 2010). Structural supports include providing access to information and resources, offering educational and professional opportunities, and providing autonomy for decision-making (Kanter, 1993; Leggat et al., 2010). Compared to structural empowerment, psychological empowerment focuses on individual psychological determinants rather than work structures or contexts. Psychological empowerment refers to the employee's perception or feeling of being empowered to be successful in the workplace (Spreitzer, 1995). Feelings of psychological empowerment are associated with positive workplace behaviors, and these bring positive outcomes to organizations (Knol & Kinge, 2009).

Recognition of the importance of job satisfaction in health care has led to considerable research on the concept within nursing (Hayes et al., 2010; Laschinger, 2008; Sellgren et al., 2008). Nonetheless, nurses continue to report high-levels of job dissatisfaction (Hayes et al., 2010; Manojlovich & Laschinger, 2002; Ma et al., 2003), and there is a need for further study.

Since job satisfaction is associated with many factors in organizations, there is a need to investigate which factors have more influence on the construct. Based on the literature reviewed, it is evident that limited research has focused on the effects of leader empowering behaviors and psychological empowerment on Canadian nurses' job satisfaction (Laschinger et al., 2004; Manojilovich & Laschinger, 2002). Therefore, this study will address this gap by investigating how leader empowering behaviors, structural empowerment, and psychological empowerment are related to job satisfaction. In addition, this study will examine which aspects of psychological empowerment are more strongly associated with particular aspects of job satisfaction.

1.2 Purpose of Study and Research Question

The purpose of this study was to examine the relationships between nursing leaders' use of empowering behaviors, staff perceptions of structural empowerment and psychological empowerment, and job satisfaction. The following research questions guided this quantitative study:

1. How is job satisfaction among staff nurses associated with leader empowering behaviors and structural empowerment and psychological empowerment?
2. What are the relationships between the four psychological cognitions of psychological empowerment (Meaning, Competence, Self-determination and Impact) and each of the dimensions of nurses' job satisfaction after accounting for demographic characteristics, leader empowering behaviors, and structural empowerment?

1.3 Overview of the Thesis

Chapter 2 presents the literature review pertinent to my research questions and proposed methods. This chapter provides an overview of the literature on leader empowering behaviors, structural empowerment, psychological empowerment, and nurses' job satisfaction. The

theoretical framework is also outlined. Chapter 3 describes the research methods for the study, including the hypothesized models to be tested, research design, setting and sample, instrumentation, data collection, and analytic procedures. Chapter 4 presents the results of bivariate correlations of demographic characteristics and key study variables, and regression analyses for ten predictor variables on six outcomes to answer my research questions. Chapter 5 presents the summary of the study results. Study strengths and limitations are also addressed in Chapter 5 along with implications for nursing practice and future research.

Chapter 2: Review of the Literature

The job satisfaction of nurses is an important factor in nursing as it is related to quality patient care (Ma et al., 2003) and other organizational outcomes. This chapter presents a review of the related literature and is organized around the key variables being examined: staff nurses perceptions of their leader's use of empowering behaviors, structural empowerment, psychological empowerment, and nurses' job satisfaction. The theoretical framework underlying this study, Workplace Empowerment, is also discussed.

2.1 Leader Empowering Behaviors

Empowerment is "a tool to encourage workers to think for themselves about the requirements of the job, and to move beyond blindly doing what they are told" (Laschinger et al., 2004, p. 527). Empowering employees refers to helping the staff to work best to achieve organizational goals, which requires an understanding of their needs (Laschinger, Finegan, & Shamian, 2001a). Leaders' use of empowering behaviors is essential in the development and retention of an effective work team. Effective leader empowering behaviors make employees feel empowered, autonomous, motivated, and rewarded, and yields a sense of fairness and community in the workplace. Empowered employees are more likely to self-manage, take greater responsibility within their organization, and work more effectively (Greco et al, 2006; Laschinger, Wong, McMahon, & Kaufmann, 1999). Empowered nursing staff are more likely to provide better quality patient care, and may even perform beyond their leader's expectations (Cummings, 2004; Germain & Cummings, 2010).

Leaders' use of empowering behaviors includes "enhancing the meaningfulness of work, fostering participation in decision-making, facilitating goal accomplishment, expressing confidence in high performance and providing autonomy from bureaucratic constraints" (Greco

et al., 2006, p. 43). A systematic literature review by Germain and Cummings (2010) identified leaders' behaviors that affected employees' motivation and performance. The authors noted that nurses were empowered to perform when they had autonomy for decision-making, when effective and strong communications to build trusting relationships were available, when reasonable and accessible resources were available, and when their leaders used effective leadership behaviors such as mentoring and coaching. These findings were consistent with the findings of Laschinger et al. (1999) that nurses felt empowered when their leaders shared their power by encouraging staff to participate in decision-making. Greco et al. (2006) also noted that providing autonomy and expressing confidence in staff performance caused employees to feel more empowered to work efficiently.

Hui (1994) emphasized the direct and indirect effects of leader empowering behaviors on employees' work performance, and he categorized leader empowering behaviors into the five following dimensions (p. 25):

1. *Enhancing meaningfulness of work*: "Leader behaviors aimed at providing purpose and meaning to followers' work so that followers can identify themselves as important members of the organization and are motivated to perform their tasks." Leaders need to help the followers to recognize their values, roles, and contributions to their organizations.
2. *Fostering participation in decision making*: "Leader behaviors aimed at soliciting inputs from followers in problem situations and inducing active involvement from followers in decision making processes." Leaders need to provide opportunities to their staff to suggest their ideas and thoughts regarding their work, and the opinions should be considered and valued in decision-making.

3. *Facilitating goal accomplishment*: "Leader behaviors aimed at maximizing the likelihood that followers may achieve their performance goals by enhancing the skills of the followers and providing resources required for effective performance." Leaders need to offer required resources, provide training or educational opportunities, and remove barriers for the staff to perform well.
4. *Expressing confidence in high performance*: "Leader behaviors aimed at cultivating the confidence of, as well as showing confidence in, the follower's ability to perform at a high level." Leaders need to help their staff recognize their competencies to meet the organizational expectations and work successfully.
5. *Providing autonomy from bureaucratic constraints*: "Leader behaviors aimed at minimizing administrative details and rule-mindedness so that followers can initiate task behaviors and perform their jobs with effectiveness and efficiency." Employees should be given more freedom to make decisions and perform independently. Leaders need to minimize administrative details, decrease command levels, and make organizational rules and procedures as simple as possible in order to help their staff work efficiently and effectively. Staff are able to make autonomous decisions, using their critical thinking.

Leader empowering behaviors has a significant impact on important outcomes and play a vital role in creating positive work environments (Laschinger et al., 2009), that are associated with increased staff engagement and reduce burnout (Greco et al., 2006). Some studies noted that leader empowering behaviors decreased nurses' intention to leave their professions, decreased job tension, increased work effectiveness and productivity, increased organizational commitment and goal achievement, and enhanced creativity (Kleinman, 2004; Laschinger & Finegan, 2005; Laschinger& Havens, 1997; Morrison et al., 1997; Zhang & Bartol, 2010). Laschinger (2008)

found that leader empowering behaviors was directly related to higher quality patient care and nurses' job satisfaction.

2.2 Theoretical Framework – The Workplace Empowerment

"Workplace empowerment is a management strategy that has been shown to be successful in creating positive work environments in organizations" (Laschinger et al., 2009, p. 228). The workplace empowerment process (structural empowerment → psychological empowerment → outcomes) has been considered as a key to empower staff in organizations (Wagner et al., 2010), and is based on organizational and management theories (Kanter, 1993) and social-psychological theories (Conger & Kanungo, 1988; Spreitzer, 1995). Two theoretical aspects of workplace empowerment are structural empowerment (Kanter, 1993) and psychological empowerment (Spreitzer, 1995). Each theoretical aspect plays an important role in organizations, bringing positive outcomes such as increased staff nurse job satisfaction (Laschinger, 2001b; Laschinger et al., 2001c; Laschinger et al., 2009) and decreased burnout (Leiter & Laschinger, 2006). When the two aspects are jointly attended to in the workplace, this becomes a more powerful approach to achieving organizational outcomes as structural empowerment and psychological empowerment have a positive influence on each other (Laschinger et al., 2004).

2.2.1 Structural Empowerment

Kanter (1993) conducted an ethnography of men and women and power use within their work environments. Kanter's structural empowerment theory asserts that work is enhanced when employees have access to organizational empowerment structures. These empowerment structures include informal and formal power, information, support, resources, organizational communication systems, network forming arrangements, access to resources, job designs, and

opportunities to learn and grow. Formal power is related to jobs that promote visibility and require independent decision making of employees. Informal power refers to employees' personal relationships or alliances in the organizations such as relationships with superiors, peers and subordinates (Greco et al., 2006; Wagner et al., 2010). Having access to information refers to knowledge acquisition of employees to be effective in their organizations. Kanter (1993) emphasized that employees must have to access to resources such as supplies, time, and financial means, and supports in order to meet organizational goals. Employees who work in structured working environments feel more empowered and are more engaged in positive organizational activities. Within the health care environment, the benefits accrue to patients, the employees, and the organizations (Kanter, 1993; Laschinger & Finegan, 2005; Laschinger et al., 2001a; Laschinger et al, 2009; Lucas, Laschinger, & Wong, 2008).

Laschinger et al. (1999) found that levels of structural empowerment among staff nurses were positively correlated with productivity and quality of patient care. Structural empowerment has a positive effect on nurses, patients and organizational outcomes such as increased organizational commitment, increased job satisfaction, decreased burnout and job stress, enhanced trust and respect in management, and increased autonomy and self-efficacy (Laschinger et al, 2001a; Laschinger et al., 2004; Laschinger et al., 2009). Laschinger et al. (2001a) concluded that providing structural empowerment to nurses was essential to achieving organizational goals. Aiken et al. (2001) reported that nurses who worked in a supportive work environment showed lower levels of burnout and turnover, and higher levels of job satisfaction. In another nursing study of urban tertiary care hospitals in Ontario, Canada, Laschinger (2008) found that changes in workplace structure brought about positive changes in nursing such as increased staff job satisfaction and better patient care.

2.2.2 Psychological Empowerment

Thomas and Velthouse (1990) expanded the definition of psychological empowerment as motivation of employee self-efficacy to intrinsic motivation in workers by identifying a set of four cognitions, Meaning, Competence (equivalent to Conger and Kanungo's (1998) notion of self-efficacy), Self-determination, and Impact. Spreitzer (1995) defined psychological empowerment as psychological state experienced by employees (a feeling of being empowered) at work manifested in a combination of the four dimensions (Spreitzer, De Janasz, & Quinn, 1999). Spreitzer (1995) defined the four psychological beliefs as following (p.1443-1444): Conger and Kannugo (1998) defined psychological empowerment as motivation of employee self-efficacy.

1. *Meaning* is "the value of a work goal or purpose, judged in relation to an individual's own ideals or standards (and) this involves a fit between the requirement of a work role and beliefs, values, and behaviors."
2. *Competence* refers to self-efficacy. This is "an individual's belief in his or her capability to perform activities with skill". In other words, competence is "a mastery of behavior."
3. *Self-determination* is "an individual's sense of having choice in initiating and regulating actions (and this) reflects autonomy in the initiation and continuation of work behaviors and processes."
4. *Impact* is "a degree to which an individual can influence strategic, administrative, or operating outcomes at work."

Although the four cognitions are distinct, they comprise overall psychological construct, which is associated with positive organizational outcomes (Spreitzer, 1995).

The impact of psychological empowerment on staff and organizational outcomes has been reported in organizational behavior and nursing research. Psychological empowerment has been shown to be associated with the enhanced creativity of employees (Spreitzer, 1995, Zhang & Bartol, 2010), innovative staff behaviors (Knol & Linge, 2009), positive work behaviors and attitudes (Wagner et al., 2010), and intrinsic motivation (Zhang & Bartol, 2010). It is also positively associated with job satisfaction of nurses (Laschinger et al., 2001b; Laschinger, et al., 2009; Leiter & Laschinger, 2009) and negatively correlated with job strain (Laschinger et al., 2001b). Thus, the psychological empowerment of employees has positive effects on employee behaviors which lead to positive organizational outcomes (Knol & Kinge, 2009).

Zhang and Bartol (2010) studied the link between empowering leadership, psychological empowerment, creativity and motivation, and found that psychological empowerment was closely related to empowering leadership. Empowering leaders could help their staff feel valued at work and this, in turn, enhanced the meaningfulness of the employees' work. They also noted that empowering leadership was associated with employees' sense of self-efficacy. They argued that when leaders express confidence in staff performance, employees are able to work more effectively. They also maintained that empowering leaders encourage their staff to participate in decision-making process and provide the autonomy for staff to work independently which, in turn, increases employees' feelings of control and self-determination. This leads to better work outcomes and a sense of impact or accomplishment among employees.

Wang and Lee (2009) studied interactive effects of the four dimensions of psychological empowerment and job satisfaction with the sample of 485 part-time MBA students at a state university in the northeastern United States. They noted that, although the overall measure of psychological empowerment was associated with staff job satisfaction, the meaning dimension of

psychological empowerment had the strongest effect on job satisfaction. However, they concluded that a well-balanced combination of the four dimension of psychological empowerment would result in maximum job satisfaction outcomes.

2.2.3 Linkage between Structural and Psychological Empowerment

Laschiner et al. (1999, 2009) hypothesized that combination of structural and psychological empowerment is a more effective way to empower in the workplace. A systematic review (Wagner et al., 2010) examined relationships between structural empowerment and psychological empowerment for health professionals including registered nurses (RNs). The review indicated that there is a significant positive relationship between the two types of empowerment.

> Structural empowerment at the group or nursing level positively influenced individual staff nurses' perceptions of psychological empowerment…. When meaning, self-determination and impact increase …., it is anticipated that associated increases in outcomes…. will also occur. (Wagner et al., 2010, p. 460)

This is consistent with the findings of Laschinger et al. (2001c) that nurses who worked in structurally empowered environments had higher levels of psychological empowerment, resulting in increased job satisfaction. Laschinger et al. (2001b) found that the combined effects of structural empowerment and psychological empowerment increased nurses' job satisfaction. As shown, structural empowerment, psychological empowerment and the nursing outcomes are correlated (Germain & Cummings, 2010).

2.3 Job Satisfaction

Job satisfaction is associated with many factors (Lu, Barriball, Zhang, & While, 2012). A systemic review of job satisfaction among hospital nurses (Lu et al., 2012) identified twenty-six sources of job satisfaction : "working conditions, interaction, relationships with patients, relationships with co-workers, relationships with managers, work itself, workload, staffing,

scheduling and shifts, challenging work, reutilization, task requirements, psychological job demands, remuneration, self-growth and promotion, professional training, opportunities of advancement, job promotion, personal achievement, psychological rewards, praise, recognition, encouragement, control and responsibility, autonomy, decision-making, job security, leadership styles, and organizational polices" (p.1021). Laschinger and Finegan (2005) found that nurses' job satisfaction was related to job stress, peer support, communications with management, rewards and recognition. Zangaro and Soeken (2007) conducted a meta-analysis study of job satisfaction and identified that autonomy, job stress and nurse-physician relationships were the most common factors associating with job satisfaction. The authors concluded that nurses' job satisfaction could be increased when nurses collaborated with physicians, when they had autonomy, and when job stress was reduced. Hayes et al. (2010) also studied factors associated with job satisfaction in acute care hospital settings. In their literature review, they categorized the factors into three groups: Intra-, Inter- and Extra-personal factors. Intra-personal factors included age, coping strategies, education, and personal experiences. Twenty-five inter-personal factors such as access to education, autonomy, control and responsibility, co-worker interactions, professional growth, supervisory support, and relationships with patient and nursing staff were identified. Pay, organizational policies, scheduling and workload were considered as extra-personal factors. Hayes et al. also emphasized the importance of the role of nurse managers in creating positive work environments by influencing the above factors in order to enhance nurses' job satisfaction.

Research has shown that job satisfaction of staff nurses is associated with the quality of leadership (Albaugh, 2003). Leader Empowering Behaviors are vital for high quality and safe nursing practices (Laschinger et al, 2001b; Sellegren et al., 2008). Laschinger et al. (2001a)

found that nurses' job satisfaction was related to trust in management (Laschinger et al., 2001a) and autonomy to control their work (Laschinger et al., 2001b). Laschinger (2008) found that limited staff autonomy increased job dissatisfaction and intention to leave their profession. Job satisfaction has also been shown to be inversely related to increased span of control of managers and work stress, and positively related to social support from managers and peers, collaboration, and teamwork (Hall, 2007). Shellegren et al. (2008) concluded that creative work environments have a positive effect on nurses' job satisfaction. They noted that managers have a primary responsibility to create a positive work environment and their roles in leadership are the key to staff job satisfaction and retention. This is associated with the notion that leadership behaviors play an important role in staff job satisfaction (McNeese-Smith, 1996).

Factors that cause job dissatisfaction have also been studied. Lack of resources, recognition, support, communication and fairness have been shown to be associated with job dissatisfaction (Hayes et al., 2010; McCloskey, 1974; McNeese-Smith, 1996). McNeese-Smith (1996) identified job dissatisfaction factors and categorized them into seven groups: "patient care, factors that interfere with job/patient care, feeling overloaded, relations with co-workers, personal factors, organizational factors and career stage of the nurse" (p.1337). The author found that verbal abuse from patients and their family, bad patient outcomes, unsupportive working environments and conditions, lack of supplies, night shifts, insufficient staff, heavy workload and unfairness at work were associated with nurses' job dissatisfaction.

Similarly, job dissatisfaction exerts negative effects on health care and nurses' outcomes. The association between nurses' job dissatisfaction and turnover and intention to leave is well supported in the literature. Lu, Lin, Wu, Hsieh, and Chang (2002) found that job satisfaction was negatively correlated with intention to leave. Ma et al. (2003) also noted that dissatisfied nurses

were more likely to leave their professions. Job dissatisfaction of nurses is associated with nursing absenteeism, nursing shortage (Roberts, Jones, & Lynn, 2004), burnout (Ma et al., 2003), recruitment and orientation costs (Hayes et al., 2010), and decreased patient satisfaction (Abu Ajamieh et al., 1996).

A review of the literature indicates that job satisfaction is measured with a variety of job satisfaction scales. One of the most-widely used measures of job satisfaction is the McCloskey/Muller Satisfaction Scale (MMSS, 1990, as cited in Tourangeau, Hall, Doroan, & Petch, 2006) which was developed for the American nursing context. Price (2002) used the MMSS to examine job satisfaction in 175 RNs at a large teaching hospital in England and concluded that there was a need to refine the MMSS to be more appropriate to non-USA nurse populations. The same suggestion arose from a study of Palestinian nurses' job satisfaction (Abu Ajamieh et al., 1996) and a study of Canadian nurses' job satisfaction (Tourangeau et al., 2006). Tourangeau et al. (2006) used the MMSS to examine the job satisfaction of 13,000 nurses in Ontario, Canada in 2003 and concluded that there is a need for further development and testing of the MMSS for the Canadian context because of systematic differences between the two countries. However, even researchers within the United States have called for a further psychometric evaluation of the MMSS (e.g., Roberts et al., 2004). Concerns about the psychometric properties of the MMSS led me to conduct a preliminary study of the factor structure of the MMSS (Lee, 2013) prior to developing this research study (reported below).

2.3.1 Factor Analysis of the MMSS

A factor analysis of the MMSS was conducted (Lee, 2013) to examine its factor structure for use with Canadian nurses. The MMSS (Mueller & McCloskey, 1990) is a revision of the reward/satisfaction scale originally developed by McCloskey (1974), based on Maslow's (1954)

hierarchy of needs and Burn's (1969) motivation and human relation theories. The MMSS is a 31-item scale measured on a 5-point Likert response scale (very dissatisfied to very satisfied). The MMSS has 8 subscales: "satisfaction with Extrinsic rewards, Scheduling, Family/Work Balance, Co-workers, Interaction, Professional Opportunities, Praise and Recognition, and Control and Responsibility" (see Appendix A). Mueller and McCloskey (1990) reported a Cronbach's alpha of .89 for the global scale and alphas ranging .52 to .84 for the subscales, and made claims for criterion-related validity and construct validity. However, given the calls in nursing literature to improve the validity and reliability of this measure (Abu Ajamieh et al., 1996; Roberts et al., 2004; Tourangeau et al., 2006), a factor analysis was conducted as a preliminary study (Lee, 2013) to this thesis, and the newly derived factor structure was used in this study.

The sample for the factor analysis study consisted of 1,067 staff nurses who had participated in a larger quasi-experimental study that evaluated the effects of a nursing leadership development program (Dahinten et al., 2013; MacPhee et al., 2013). The nurses worked at a variety of clinical settings throughout British Columbia, Canada, between 2007 and 2010. Principle components analysis using varimax orthogonal rotation was completed using SPSS version 20.0 (Chicago, IL). The criterion for factor extraction was set as eigenvalues greater than 1.0 (Polit, 2010) and items with factor loadings greater than .40 (Field, 2009) were retained.

Five factors, comprising 25 items, were extracted (see Table 1 for the factor analysis results and Appendix B for the newly derived scale), accounting for 58.3% of the variance. The five factors were job satisfaction with: Work Culture and Conditions, Scheduling and Family/Work Balance, Collegial Relationships, Extrinsic Rewards, and Professional Opportunities, with the number of items ranging from 2 to 8. Cronbach's alpha of the newly

revised MMSS was .90 for the 25 items, and the alphas of subscales ranged from .71 to .81, indicating a higher internal consistency than for the original MMSS subscales. Whereas Mueller and McCloskey (1990) reported that only four of the eight subscales (those with more than 4 items) had Cronbach's alphas greater than .70, Lee (2013) reported that the alphas of all five newly derived subscales were greater than .70 regardless of the numbers of the items in each subscale.

Table 1. Factor Loadings for Exploratory Factor Analysis with Varimax Rotation of the McCloskey/Mueller Satisfaction Scale

Items	Component				
	1	2	3	4	5
13. Your Immediate supervisor	.57				
22. Control over in your work setting	.61				
24. Recognition of your work from superiors	.81				
25. Recognition of your work from peers	.64				
26.Encouragement and positive feedback	.83				
30. Your control of work conditions	.58				
31. Participation in decision making	.62				
4. Hours that you work	.50				
5. Flexibility in scheduling hours		.53			
6. Opportunity to work straight days		.78			
7.Opportunity for part time work		.42			
8. Weekends off per month		.86			
9. Flexibility in scheduling weekends off		.86			
10. Compensation for working weekends		.52			
11. Maternity leave time		.48			
15. Physicians you work with			.57		
16. Delivery of care method used in unit			.60		
17. Opportunities for social contact at work			.78		
18. Opportunities for social contact after work			.78		
19. Opportunities with other disciplines			.60		
1. Salary				.76	
2. Vacation				.74	
3. Benefit package				.73	
27. Opportunities to participate in research					.56
28. Opportunities to write and publish					.80

Note. *N*=1067.
Factor loadings < .40 were removed.

Chapter 3: Methods

The purpose of this study was to examine the relationships between staff perceptions of psychological empowerment and job satisfaction, controlling for the effects of their leaders' use of empowering behaviors and their perceptions of structural empowerment. This chapter outlines the models that were tested in this study, and describes the research design, sample, measures, and data collection and analytic procedures.

3.1 Model to Be Tested

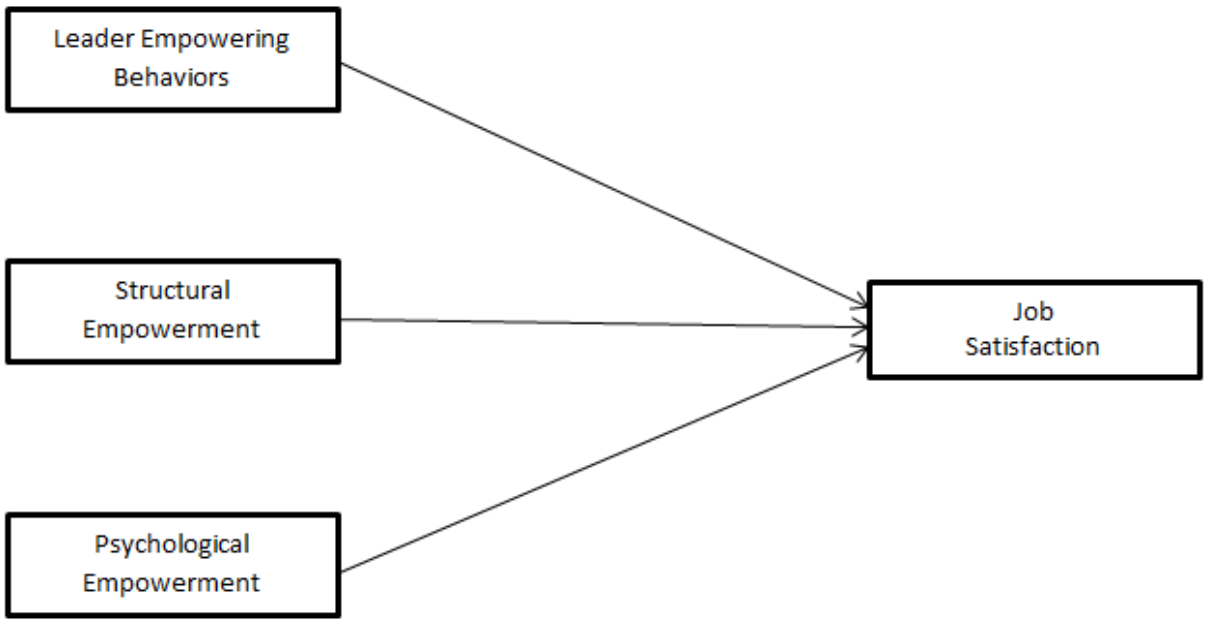

Figure 1. Model 1.

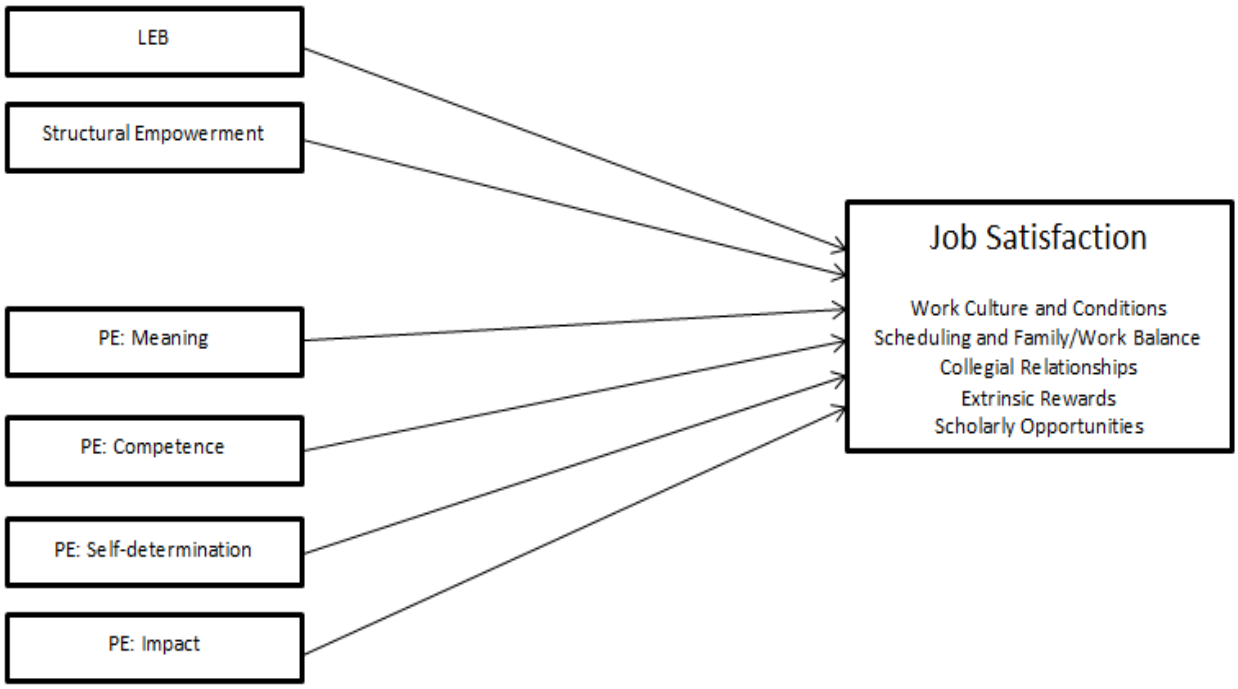

Figure 2. Model 2.

Note: LEB, Leader Empowering Behavior; PE, Psychological Empowerment.

Separate regression models will be analyzed for each of the five dimensions of job satisfaction, and the total job satisfaction scale score.

3.2 Research Design

This cross-sectional, correlational study was a secondary analysis of data collected between 2007 and 2010 as part of the evaluation of the British Columbia Nursing Leadership Institute (BC NLI). The BC NLI was a yearlong empowerment-based educational program aimed at first-line nurse leaders in BC with the purpose of helping them develop relational and management competencies in order to empower their staff (MacPhee & Bouthillette, 2008; MacPhee, Skelton-Green, Bouthillette, & Suryaprakash, 2012). Data were collected from leaders who participated in the NLI and their staff, and from a comparison group of leaders and staff. The existing data were used to answer newly posed research questions and test new hypothesized

models (Polit & Beck, 2012).

3.3 Source of Data (Setting and Sample)

The sample for this study consisted of 1,067 staff nurses who participated in baseline data collection between 2007 and 2010. The nurses worked at a variety of hospital and community-based clinical settings throughout the six health authorities of British Columbia. Ethics approval of this study was obtained from the University of British Columbia Behavioural Research Ethics Board in November, 2013. A power analysis, using the formula below (Polit & Beck, 2008, p. 622-623), was conducted to determine the required sample size to identify a small (R^2 = .02) and moderate (R^2 = .13), effect. The formula assumes a two-tailed test, power of .80, and α = .05. Ten predictor variables were used: four demographic characteristics, LEB, SE, and four aspects of PE.

$$N = \frac{L}{\gamma} + k + 1$$

Small Effect Size

$$N = \frac{16.24}{.02} + 10 + 1$$

A sample of 823 is required to detect a small effect size. Therefore, the sample of 1,067 was sufficient to detect a small effect size.

3.4 Data Collection Procedures

After ethics approval was granted by the University of British Columbia and six health authority boards for the larger NLI evaluation study, questionnaires were distributed on participating nursing units for completion by nursing staff, along with advertisement and recruitment posters and flyers. The data collection packages included a cover letter, a questionnaire, a return envelope, and a raffle ticket. The questionnaires took approximately 20 minutes to complete (personal communication, Maura MacPhee, October 7, 2013). Consent was

assumed if the questionnaires were completed and returned by mail to the BC NLI research office (Dahinten et al., 2013).

3.5 Measures

Leader Empowering Behaviors. The Leader Empowering Behaviors Scale (LEBS) (Hui, 1994) was used to assess staff nurses' perceptions of their leaders' use of empowering behaviors (see Appendix C). This questionnaire consists of 27 items covering the five dimensions of: Creating Meaningfulness of Work (6 items), Encouraging Participation in Decision Making (5 items), Expressing Confidence in High Performance (6 items), Facilitating Goal Accomplishment (5 items), and Fostering Autonomy from Bureaucratic Constraints (6 items).

Example questions from this questionnaire include:

My leader:

1. Helps me understand the importance of my work to the overall effectiveness of my organization (Meaningfulness of work).
2. Provides many opportunities for me to express my opinions (Participation in decision making).
3. Recognizes my good work by using it as an example for others (Confidence in high performance).
4. Helps me overcome obstacles to my performance (Goal accomplishment).
5. Encourages me to contact directly the people from whom I need information (Autonomy).

Responses were measured on a 7-point Likert scale ranging from 1(strongly disagree) to 7 (strongly agree). A total mean score was computed, based on the mean scores of the subscales, as recommended by the test developer, and used in prior studies with these data (Dahinten et al.,

2013; MacPhee et al., 2013). Cronbach's alpha .97 found for the total scale (Greco et al., 2006). Higher mean scores on the LEBS indicate higher levels of leader empowering behaviors.

Structural Empowerment. The Conditions for Work Effectiveness Questionnaire-II (CWEQ- II, see Appendix D) (Laschinger et al., 2001a) was used to measure structural empowerment based on Kanter's organizational and management theory (1993). This 19-item instrument consists of six subscales that measure six empowerment structures: Opportunity (3 items), Information (3 items), Support (3 items), Resources (3 items), Formal power (3 items), and Informal power (4 items). This tool also includes a 2-item global empowerment scale which is used for construct validation purposes. Items are rated on a 5-point Likert response scale, ranging from 1 (none) to 5 (a lot).

Example questions from this questionnaire include:

1. How much of each kind of opportunity (e.g., challenging work) do you have in your present job (Opportunity)?
2. How much access to information do you have in your present job (Information)?
3. How much access to support do you have in your present job (Support)?
4. How much access to resources do you have in your present job (Resources)?
5. In my work setting/job, the rewards for innovation on the job are (Formal power).
6. How much opportunity do you have for these activities (e.g., collaboration with physician) in your present job (Informal power)?

A total mean score was computed, based on the mean scores of the subscales. Cronbach's alphas ranged from .89 to .93 found for the total scale (Laschinger et al., 2001a; Patrick & Laschinger, 2006). Higher mean scores on the CWEQ-II indicate higher levels of structural empowerment.

Psychological Empowerment. Spreitzer's (1995) 12-item Psychological Empowerment Scale (see Appendix E) was used to measure psychological empowerment. This instrument consists of four subscales representing the four dimensions of psychological empowerment: Meaning, Competence, Self-determination, and Impact. Each subscale includes three items measured on a 5-point Likert response scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Mean scores were computed for each of the subscales, and an overall mean score was computed for the total scale.

Example questions from this questionnaire include:

1. The work I do is very important to me (Meaning).
2. I am confident about my ability to do my job (Competence).
3. I have significant autonomy in determining how I do my job (Self-determination).
4. My impact on what happens in my department is large (Impact).

A total mean score was computed, based on the mean scores of the subscales. Cronbach's alphas for the subscales ranged from .79 to .91 (Knol & Linge, 2009; Spreitzer, 1995), and Cronbach's alpha of .87 found for the total scale (Knol & Linge, 2009). Higher mean scores on the PES indicate higher levels of psychological empowerment.

Job Satisfaction. Job satisfaction was assessed with the 31-item McCloskey and Mueller Satisfaction Scale (1990, see Appendix A), measured on a 5-point Likert response scale ranging from 1 (very unsatisfied) to 5 (very satisfied). However, for this study, I computed an overall score and five subscale scores for job satisfaction based on the 25 items and factor structure obtained in the factor analysis that I conducted in an earlier study (Lee, 2013, see Appendix B): satisfaction with Work Culture and Conditions (7 items), Scheduling and Family/Work Balance (8 items), Collegial Relationship (5 items), Extrinsic Rewards (3 items) and Professional

Opportunities (2 items).

Example questions from this scale include:

How satisfied are you with:

1. The amount of encouragement and positive feedback (Work Culture and Conditions)?
2. Flexibility in scheduling your hours (Scheduling and Family/work balance)?
3. Opportunities for social contact at work (Collegial relationship)?
4. Salary (Extrinsic rewards)?
5. Opportunities to write and publish (Professional opportunities)?

The mean score of each subscale was computed, as well as a total global scale score (computed by summing all 25 items following the procedure recommended by Mueller and McCloskey, 1990). Cronbach's alphas for the subscales ranged from .71 to .87 (Lee, 2013). Higher scores on the MMSS indicate higher levels of job satisfaction.

Chapter 4: Findings

This chapter provides a description of the results of a study examining job satisfaction among staff nurses in relation to leader empowering behavior, structural empowerment and psychological empowerment. This section describes the statistical procedures used, and presents the descriptive statistics and results for bivariate correlation analyses and hierarchical multiple regression analyses, using SPSS v21 for windows (SPSS Inc., Chicago, IL, USA). Hierarchical regression analyses were used to answer my two main research questions:

1. How is job satisfaction among staff nurses associated with leader empowering behaviors, structural empowerment, and psychological empowerment?
2. What are the relationships between the four psychological cognitions of psychological empowerment (Meaning, Competence, Self-determination and Impact) and each of the dimensions of nurses' job satisfaction after accounting for demographic characteristics, leader empowering behaviors, and structural empowerment?

4.1 Demographic Characteristics of Participants

As presented in Table 2, the majority of respondents were female (91.7%), averaging 42.4 years of age. Approximately half (54.6%) of the participants had either a baccalaureate or master degree in nursing. The majority (62.7%) were full-time nurses; 28.3% worked part-time, and 8.9% worked on a casual basis. Half of the participants had at least 16 years (192 months) of experience in nursing, and 5 years (60 months) of experience in their current position.

Table 2. Demographic Characteristics of Staff Participants (*N*=1067)

	n	%
Gender		
Female	974	91.7
Male	88	8.3
Work Status		
Full-time	667	62.7
Part-time	301	28.3
Casual	95	8.9
Education		
Hospital Diploma	132	13.1
College Diploma	325	32.3
BScN	522	51.9
MScN	27	2.7
Age in years (*M, SD*)	42.4 (11.1)	
Months in current job (*Mdn*, range)	60 (1-480)	
Months in nursing (*Mdn*, range)	192 (1-552)	

Note. *M*, Mean; *SD*, standard deviation; *Mdn*, Median.

4.2 Data Exploration and Transformation

Preliminary analyses were performed to ensure no violation of the assumptions for normality, linearity and homoscedasticity (Pallant, 2010). The data for all key variables except two showed a normal distribution. Scores for the Meaning and Competence subscales of psychological empowerment showed skewness measures of -1.8 and -.1.1 respectively. Therefore, these two subscale scores were squared to correct for negative skewness and the transformed scores were used in the correlation and regression analyses.

4.3 Descriptive Statistics for the Key Study Variables

Descriptive statistics for the major study variables in this study are presented in Table 3. Among the job satisfaction subscales, nurses reported the highest mean scores for Collegial Relationships (*M* = 3.72, *SD* = .72), followed by Scheduling and Family/Work Balance (*M* = 3.59, *SD* = .90) and Extrinsic Rewards (*M* = 3.58, *SD* = .86). Professional Opportunities, such as opportunities to write and publish, received the lowest mean score for job satisfaction (*M* =2.71, *SD* = 1.0). Among the psychological empowerment subscales, Meaning showed the highest mean score at 4.51 (*Mdn* = 5.00, *SD*= .66), whereas Impact showed the lowest score at 2.78 (*Mdn* = 4.33, *SD*= .98). Cronbach's alphas for the key variables (scales and subscales) ranged from .71 to .96 indicating good reliabilities of each of the scale or subscale.

Table 3. Mean, Median, Standard Deviations, Cronbach's Alphas for Key Variables

Instrument	*M*	*Mdn*	*SD*	Cronbach's Alpha
Total Score of LEB	4.64	4.87	1.19	.96
Total Score of SE	3.20	3.22	.58	.89
Total Score of PE	3.89	3.92	.53	.85
PE Meaning	4.51	5.00	.66	.92
PE Competence	4.35	4.33	.63	.87
PE Self-determination	3.92	4.00	.78	.85
PE Impact	2.78	3.00	.98	.88
Global JS	78.75	80.00	18.42	.91
JS Work Culture & Conditions	3.29	3.29	.80	.87
JS Scheduling & F/W Balance	3.59	3.63	.90	.84
JS Collegial Relationships	3.72	3.80	.72	.79
JS Extrinsic Rewards	3.58	3.67	.86	.71
JS Professional Opportunities	2.71	3.00	.10	.84

Note. M, Mean; *Mdn*, Median; *SD*, Standard Deviation; LEB, Leader Empowering Behaviors; SE, Structural Empowerment; PE, Psychological Empowerment; JS, Job Satisfaction; F/W, Family/Work.

4.4 Bivariate Analyses

Pearson correlations among demographic characteristics and key study variables are shown in Tables 4 and 5. Among the set of demographic variables (age, gender, months in nursing, months in current job, education and work status), only gender was not significantly related to any of the outcome measures. The score of global job satisfaction was significantly related to work status ($r = .14$, $p < .01$) and moderately to strongly correlated with the total scores of LEB ($r = .42$, $p < .01$), SE ($r = .51$, $p < .01$) and PE ($r = .36$, $p < .01$).

For PE, the total scale score and all subscales except for Impact showed medium to large intercorrelations ($r = .31$ to $.78$). The overall intercorrelations among the job satisfaction subscale scores were moderate ($r = .31$ to $.49$). However, intercorrelations between Extrinsic Reward subscale and Professional Opportunity subscales of job satisfaction ($r = .18$), and Extrinsic Rewards subscale and Work Culture and Conditions subscale of job satisfaction ($r = .28$) were weak.

All JS subscales were positively correlated with the total scores of LEB, SE PE, with statistically significant correlations ranging from small ($r = .07$, $p < .05$) to large ($r = .69$, $p < .01$). JS Scheduling and Family/Work Balance, JS Collegial Relationship and JS Extrinsic Rewards showed positive correlations with all PE subscales ranging from small ($r = .17$, $p < .01$) to moderate ($r = .32$, $p < .01$). There was more variability among the intercorrelations between JS Work Culture and Conditions and Professional Opportunities, and the PE subscales. JS Work Culture and Conditions showed moderate to strong correlations with PE Self-determination and PE Impact, but was not significantly correlated with PE Competence. JS Professional

Opportunities showed moderately low correlations with PE Self-Determination and PE Impact, and no significant relationship with PE Competence.

Table 4. Bivariate Correlation of Demographic Characteristics and Key Study Variables

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Age														
2. Gender [a]	.02													
3. Months in nursing	.75**	.02												
4. Months in current job	.51**	.03	.48**											
5. Education [b]	-.43**	-.05	-.38**	-.31**										
6. Work status [c]	.09**	-.04	.11**	.11**	-.08**									
7. Total LEB	-.09**	.01	-.01	-.08**	.04	.03								
8. Total SE	-.02	.03	.02	-.04	.06*	.03	.59**							
9. Total PE	.15**	.01	.12**	.13**	-.07**	-.03	.42**	.47**						
10. Global JS	-.03	-.03	-.02	-.02	.06	.14**	.42**	.51**	.36**					
11. JS Work Culture & Conditions	-.03	.02	.01	-.09**	.02	.08*	.69**	.72**	.48**	.63**				
12. JS Scheduling & F/W Balance	.18**	.01	.16**	.08**	-.00	.26**	.28**	.39**	.31**	.76**	.46**			
13. JS Collegial Relationship	-.04	.01	-.02	-.02	.04	.05	.43**	.54**	.38**	.70**	.59**	.42**		
14. JS Extrinsic Rewards	.10**	-.02	.04	.10**	.01	.03	.17**	.30**	.20**	.53**	.28**	.44**	.33**	
15. JS Professional Opportunities	.06	.01	.07*	.03	-.02	.08*	.36**	.48**	.25**	.42**	.49**	.33**	.31**	.18**

Note. N=1067. LEB, Leader Empowering Behavior; SE, Structural Empowerment; PE, Psychological Empowerment; JS, Job Satisfaction; F/W, Family/Work. [a] Gender (0 = Male, 1 = Female). [b] Education (0 = Diploma, 1 = Degree). [c] Work status (0 = Full-time, 1 = Part-time, Casual). *$p < .05$; **$p < .01$

Table 5. Bivariate Correlations of Key Study Variables

Variables	1	2	3	4	5	6	7	8	9	10	11
1. PE Meaning											
2. PE Competence	.38**										
3. PE Self-determine	.31**	.35**									
4. PE Impact	.20**	.12**	.46**								
5. Total PE	.63**	.60**	.78**	.73**							
6. Total SE	.27**	.04	.36**	.51**	.47**						
7. Total LEB	.23**	.04	.40**	.41**	.42**	.59**					
8. JS Work Culture & Conditions	.22**	.06	.41**	.53**	.48**	.72**	.69**				
9. JS Scheduling & F/W Balance	.17**	.13**	.25**	.27**	.31**	.39**	.28**	.46**			
10. JS Collegial Relationship	.22**	.18**	.32**	.31**	.38**	.54**	.43**	.59**	.42**		
11. JS Extrinsic Rewards	.14**	.07*	.17**	.17**	.20**	.30**	.17**	.28**	.44**	.33**	
12. JS Professional Opportunities	.12**	.01	.20**	.29**	.25**	.48**	.36**	.49**	.33**	.31**	.18**

Note. N=1067. PE, Psychological Empowerment; SE, Structural Empowerment; LEB, Leader Empowering Behavior; JS, Job Satisfaction; F/W, Family/Work. *$p < .05$; **$p < .01$

4.5 Multiple Linear Regression Analyses

Multiple Linear regression analyses were conducted using hierarchical regression entry method.

Research Question One: How is job satisfaction among staff nurses associated with leaders empowering behaviors, structural empowerment, and psychological empowerment?

Research Question Two: What are the relationships between the four psychological cognitions of psychological empowerment (Meaning, Competence, Self-determination and Impact) and each of the dimensions of nurses' job satisfaction after accounting for demographic characteristics, leader empowering behaviors, and structural empowerment?

First, a hierarchical multiple regression analysis was conducted to examine the associations between LEB, SE, PE, and a global measure of job satisfaction among nurses. Five additional hierarchical multiple regression analyses were conducted to examine the relationship between the four PE subscale scores (Meaning, Competence, Self-determination and Impact) and each of the on the five job satisfaction subscale scores (Work Culture and Conditions, Scheduling and Family/Work Balance, Collegial Relationships, Extrinsic Rewards and Professional Opportunities), controlling for the four demographic variables (age, months in nursing, months in current job and work status), LEB and SE.

Multicollinearity of each multiple regression model was checked by inspecting the values of Tolerance and Variance Inflation Factor (VIF). None of Tolerance values were less than .10, and all VIF values of each model were less than 10. Also there were no high correlations (above .9) between independent variables. These indicated that no violation of multicollinearity assumption underlying multiple regressions was noted (Pallant, 2010). Outliers were also checked by the inspecting maximum values for Mahalanobis Distances. Given the size of the

sample (*N*=1067), it is usual to have a few outliers, so I did not worry about having some outliers in the data. The maximum values for Cook's Distance were also inspected to check influential cases. All the maximum values of Cook's Distance of six regression models were smaller than 1.0, suggesting no major problems (Pallant, 2010).

Results for the hierarchical regression analyses are presented separately for each of the six outcomes.

4.5.1 Predicting Global Job Satisfaction

Table 6 shows the series of steps followed in the regression analysis predicting a global measure of job satisfaction. In Model One, the age, months in nursing, months in current job and work status were entered as control variables. Among the four demographic variables, only work status was significantly associated with job satisfaction, explaining 2% of the variance in global job satisfaction. Age, months in nursing and months in current job did not contribute to any variance in global job satisfaction. After entry of the total mean score of LEB in Model Two, the total variance explained by the model as a whole was 19% with LEB explaining an additional 17% of the variance. In Model Three, I entered the total mean score for SE, which explained an additional 11% of the variance in global job satisfaction. After entry of the total mean score of PE in Model 4 the total variance explained by the model as a whole was 31%, F (7,1001) = 65.13, $p < .001$. In the final model, only four variables were statistically significant, with SE remaining the strongest predictor ($\beta = .36$, $p < .001$), followed by LEB ($\beta = .14$, $p < .001$), PE ($\beta = .14$, $p < .001$) and Work status ($\beta = .13$, $p < .001$).

For each of the statistically significant predictors, higher scores on SE, LEB, and PE were associated with higher levels of job satisfaction among nurses. Additionally, after controlling for

all the other variables in the model, working on a part-time or casual basis, versus working full-time, was associated with higher levels of job satisfaction.

Table 6. Hierarchical Regression Results Predicting Global Job Satisfaction Scores (*N*= 1067)

	β	*CI* (95%)	R^2	Change in R^2
Model 1				
Age	-.03	-0.10 - 0.20		
Months in Nursing	.00	-3.43 - 3.45		
Months in Current Job	-.02	-3.44 - 1.91		
Work Status [a]	.14***	3.09 - 7.80	.02	.02**
Model 2				
Age	.03	-0.10 - 0.20		
Months in Nursing	-.06	-5.26 - 1.02		
Months in Current Job	.01	-2.09 - 2.78		
Work Status	.13***	2.74 - 7.03		
LEB Total Score	.42***	5.60 - 7.35	.19	.17***
Model 3				
Age	.02	-0.11 - 0.16		
Months in Nursing	-.06	-5.05 - 0.80		
Months in Current Job	.02	-1.70 - 2.84		
Work Status	.12***	2.73 - 6.72		
LEB Total Score	.18***	1.76 - 3.77		
SE Total Score	.41***	10.78 - 14.83	.30	.11***
Model 4				
Age	-.01	-0.15 - -0.12		
Months in Nursing	-.05	-4.70 - 1.10		
Months in Current Job	.00	-2.27 - 2.26		
Work Status	.13***	3.08 - 7.04		
LEB Total Score	.14***	1.18 - 3.23		
SE Total Score	.36***	9.29 - 13.49		
PE Total score	.14***	2.69 - 6.91	.31	.01***
F(df)	65.13*** (7,1001)			

Note. [a] Work Status (0=Full-time, 1=Part-time, Casual). LEB, Leader Empowering Behavior; SE, Structural Empowerment; PE, Psychological Empowerment. β = standardized beta coefficient. *CI* (95%) = 95% confidence interval. *$p < .05$, ** $p < .01$, ***$p < .001$.

4.5.2 Predicting Job Satisfaction with Work Culture and Conditions

Table 7 shows the results for the hierarchical linear regression predicting job satisfaction with Work Culture and Conditions. The same set of demographic variables that was used in Model One for the global measure of job satisfaction (age, months in nursing, months in current job and work status), was used in this model and each of the other four regressions. Among the four demographic variables, only work months in current job and work status were significantly related to job satisfaction, explaining 2% of the variance in job satisfaction with Work Culture and Conditions. After entry of total mean score of LEB in Model Two, the total variance explained by the model as a whole was 48%. LEB explained an additional 46% of the variance in job satisfaction with Work Culture and Conditions, after controlling for the four demographic variables. In Model Three, I entered the total mean score of SE, explaining an additional 15% of the variance in job satisfaction with Work Culture and Conditions. In Model Four, I added four subscales of PE: Meaning, Competence, Self-determination and Impact. Among the four PE subscales, only Self-determination and Impact were significantly associated with job satisfaction with Work Culture and Conditions, explaining an additional 2% of the variance. The total variance explained by the final model as a whole was 65%, F (10,998) = 184.68, $p < .001$. In the final model, six variables were statistically significant, with SE remaining the strongest predictors of job satisfaction with Work Culture and Conditions ($\beta = .41$, $p < .001$), followed by LEB ($\beta = .36$, $p < .001$), Impact ($\beta = .15$, $p < .001$), months in current job ($\beta = -.09$, $p < .001$), work status ($\beta = .06$, $p < .001$), and Self-determination ($\beta = .06$, $p < .01$).

For each of the statistically significant predictors, as with the prediction of a global measure of job satisfaction, higher scores on SE and LEB were associated with higher levels of job satisfaction. Additionally, after controlling for all the other variables in the model, longer

working experiences in the current job and working on a part-time or casual basis, versus working full-time, were associated with higher levels of job satisfaction. Higher levels of individuals' psychological perceptions of Self-determination and Impact were related to higher levels of job satisfaction with Work Culture and Conditions.

Table 7. Hierarchical Regression Results Predicting Job Satisfaction with Work Culture and Conditions (*N*= 1067)

	β	*CI* (95%)	R^2	Change in R^2
Model 1				
Age	-.03	-.01-.00		
Months in Nursing	.09	-.01-.29		
Months in Current Job	.08**	-.32- -.09		
Work Status [a]	-.13***	.04-.24	.02	.02***
Model 2				
Age	.07*	.00-.10		
Months in Nursing	-.01	-.12-.10		
Months in Current Job	-.08**	-.21- -.04		
Work Status	.06**	.02-.17		
LEB Total Score	.68***	.43-.49	.48	.46***
Model 3				
Age	.05	.00-.01		
Months in Nursing	-.01	-.11-.08		
Months in Current Job	-.07**	-.19- -.04		
Work Status	.06**	.03-.15		
LEB Total Score	.40***	.24-.30		
SE Total Score	.48***	.59-.71	.62	.15***
Model 4				
Age	.04	-.00-.01		
Months in Nursing	-.01	-.11-.07		
Months in Current Job	-.09***	-.21- -.07		
Work Status	.06***	.04-.17		
LEB Total Score	.36***	.21-.28		
SE Total Score	.41***	.49-.63		
PE Meaning	-.02	-.01-.00		
PE Competence	.01	-.01-.01		
PE Self-determination	.06**	.01-.10		
PE Impact	.15***	.09-.16	.65	.02***
F(df)	184.68*** (10,998)			

Note. [a] Work Status (0=Full-time, 1=Part-time, Casual). LEB, Leader Empowering Behavior; SE, Structural Empowerment; PE, Psychological Empowerment. β = standardized beta coefficient. *CI* (95%) = 95% confidence interval. *$p < .05$, ** $p < .01$, ***$p < .001$.

4.5.3 Predicting Job Satisfaction with Scheduling and Family/Work Balance

Table 8 shows the series of steps followed for the final set of regression. Among the four demographic variables, age and work status were significantly related to job satisfaction, explaining 9% of the variance in job satisfaction with Scheduling and Family/Work Balance. After entry of the total mean score of LEB in Model Two, the total variance explained by the model as a whole was 17%. Leader empowering behaviors explained an additional 8% of the variance in job satisfaction with Scheduling and Family/Work Balance, after controlling for demographic characteristics. In Model Three, I entered the total mean score of SE, explaining an additional 7 % of the variance in job satisfaction with Scheduling and Family/Work Balance. In Model Four, I added four subscales of PE: Meaning, Competence, Self-determination and Impact. In the final model, the four PE subscale scores did not contribute to the explanation of the variance in job satisfaction with Scheduling and Family/Work Balance over and above what was explained by demographic characteristics, LEB and SE. However, when the four subscales of PE were entered, age, work status and SE remained statistically significant while LEB became non-significant. This suggests that the four PE subscales may have influenced the association between LEB and job satisfaction with Scheduling and Family/Work Balance. The total variance explained by the final model as a whole was 26%, F (10,991) = 34.33, $p < .001$. In the final model, three variables were statistically significant, with SE ($\beta = .28$, $p < .001$) remaining the strongest predictor of job satisfaction with Scheduling and Family/Work Balance, followed by work status ($\beta = .24$, $p < .001$) and age ($\beta = .16$, $p < .001$).

For each of the statistically significant predictors, higher scores on SE were associated with higher levels of job satisfaction. Additionally, after controlling for all the other variables in

the model, higher age and working on a part-time or casual basis, versus working full-time, were associated with higher levels of job satisfaction with Scheduling and Family/Work Balance.

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Table 8. Hierarchical Regression Results Predicting Job Satisfaction with Scheduling and Family/Work Balance (*N*= 1067)

	β	*CI* (95%)	R^2	Change in R^2
Model 1				
Age	.16***	.01-.02		
Months in Nursing	.04	-.10-.23		
Months in Current Job	-.04	-.20-.05		
Work Status [a]	.25***	.04-.24	.09	.09***
Model 2				
Age	.20***	.01-.02		
Months in Nursing	-.00	-.16-.15		
Months in Current Job	-.02	-.16-.09		
Work Status	.24***	.02-.17		
LEB Total Score	.29***	.43-.49	.17	.08***
Model 3				
Age	.19***	.01-.02		
Months in Nursing	-.00	-.16-.14		
Months in Current Job	-.02	-.14-.09		
Work Status	.23***	.03-.15		
LEB Total Score	.10**	.24-.30		
SE Total Score	.32***	.59-.71	.24	.07***
Model 4				
Age	.16***	.01-.02		
Months in Nursing	.00	-.14-.15		
Months in Current Job	-.03	-.18-.06		
Work Status	.24***	.04-.17		
LEB Total Score	.06	.21-.28		
SE Total Score	.28***	.49-.63		
PE Meaning	.03	-.01-.02		
PE Competence	.04	-.00-.02		
PE Self-determination	.06	-.01-.15		
PE Impact	.07	-.00-.12	.26	.01***
F(df)	34.33*** (10,991)			

Note. [a] Work Status (0=Full-time, 1=Part-time, Casual). LEB, Leader Empowering Behavior; SE, Structural Empowerment; PE, Psychological Empowerment. β = standardized beta coefficient. *CI* (95%) = 95% confidence interval. *$p < .05$, ** $p < .01$, ***$p < .001$.

4.5.4 Predicting Job Satisfaction with Collegial Relationships

Table 9 shows the series of steps followed for the final set of regression. None of the demographic variables were significantly related to the outcome variables. After entry of the total mean score of LEB in Model Two, the total variance of job satisfaction with Collegial Relationships explained by the model was 18%. In Model Three, I entered the total mean score of SE, explaining an additional 13 % of the variance in job satisfaction with Collegial Relationships. In Model Four, I added four subscales of PE: Meaning, Competence, Self-determination and Impact. Among the four PE subscales, only Competence was significantly associated with job satisfaction with Collegial Relationships, explaining an additional 2% of the variance. The total variance explained by the final model as a whole was 34%, F (10,991) = 51.34, $p < .001$. In the final model, three control measures were statistically significant, with SE ($\beta = .43$, $p < .001$) remaining the strongest predictor of job satisfaction with Collegial Relationships followed by the PE Competence subscale ($\beta = .15$, $p < .001$) and LEB ($\beta = .14$, $p < .001$).

For each of the statistically significant predictors, higher scores on SE and LEB were associated with higher levels of job satisfaction. Additionally, higher levels of psychological perceptions of Competence were associated with higher levels of job satisfaction with Collegial Relationships.

Table 9. Hierarchical Regression Results Predicting Job Satisfaction with Collegial Relationships (*N*= 1067)

	β	*CI* (95%)	R^2	Change in R^2
Model 1				
Age	-.04	-.01-.00		
Months in Nursing	.01	-.12-.15		
Months in Current Job	-.01	-.12-.09		
Work Status [a]	.05	-.02-.17	00	00
Model 2				
Age	.03	-.00-.01		
Months in Nursing	-.05	-.19-.05		
Months in Current Job	.02	-.07-.13		
Work Status	.36	-.03-.14		
LEB Total Score	.43***	.23-.30	.18	.18***
Model 3				
Age	.01	-.01-.01		
Months in Nursing	-.05	-.18-.04		
Months in Current Job	.03	-.05-.13		
Work Status	.03	-.03-.12		
LEB Total Score	.17***	.06-.14		
SE Total Score	.44***	.47-.63	.31	.13***
Model 4				
Age	-.03	-.01-.00		
Months in Nursing	-.04	-.17-.06		
Months in Current Job	-.01	-.10-.08		
Work Status	.04	-.02-.12		
LEB Total Score	.14***	.05-.13		
SE Total Score	.43***	.45-.62		
PE Meaning	.00	-.01-.01		
PE Competence	.15***	.01-.03		
PE Self-determination	.07*	.00-.12		
PE Impact	-.01	-0.5-.04	.34	.02***
F(df)	51.34*** (10,991)			

Note. [a] Work Status (0=Full-time, 1=Part-time, Casual). LEB, Leader Empowering Behavior; SE, Structural Empowerment; PE, Psychological Empowerment. *β* = standardized beta coefficient. *CI* (95%) = 95% confidence interval. *$p < .05$, ** $p < .01$, ***$p < .001$.

4.5.5 Predicting Job Satisfaction with Extrinsic Rewards

Table 10 shows the series of steps followed for the final set of regression. Among the four demographic variables, age, months in nursing and months in current job were significantly related to job satisfaction, explaining 2% of the variance in job satisfaction with Extrinsic Rewards. Work status did not contribute to any variance in job satisfaction with Extrinsic Rewards. After entry of the total mean score of LEB in Model Two, the total variance explained by the model as a whole was 5%. Leader empowering behaviors explained an additional 4% of the variance in job satisfaction with Extrinsic Rewards, after controlling for age, months in nursing and months in current job. In Model Three, I entered the total mean score of SE, explaining an additional 6 % of the variance in job satisfaction with Extrinsic Rewards. When SE was entered, age, months in nursing and months in current job remained statistically significant while LEB became non-significant. This indicates that SE influenced the association between LEB and job satisfaction with Extrinsic Rewards. As with the prediction of job satisfaction related to Scheduling and Family/work balance, the addition of the four PE subscales in Model Four did not contribute to the explanation of the variance in job satisfaction with Extrinsic Rewards over and above what was explained by demographics, LEB and SE. The total variance explained by the final model as a whole was 12%, F (10,991) = 13.35, $p < .001$. In the final model, four control measures were statistically significant, with SE ($\beta = .30$, $p < .001$) remaining the strongest predictors of job satisfaction with Extrinsic Rewards, followed by age ($\beta = .14$, $p < .01$), months in nursing ($\beta = -.13$, $p < .01$), and months in current job ($\beta = .10$, $p < .01$).

For each of the statistically significant predictors, higher scores on SE were associated with higher levels of job satisfaction. Additionally, after controlling for all the other variables in the model, higher age and longer working experiences in the current job were associated with

higher levels of job satisfaction. However, this study found that longer working experiences in nursing were associated with lower levels of job satisfaction with Extrinsic Rewards.

Table 10. Hierarchical Regression Results Predicting Job Satisfaction with Extrinsic Rewards (*N*= 1067)

	β	*CI* (95%)	R^2	Change in R^2
Model 1				
Age	.14**	.00-.02		
Months in Nursing	-.10*	-.34-.02		
Months in Current Job	.08*	.01-.26		
Work Status [a]	.02	-.08-.14	.02	.02***
Model 2				
Age	.17***	.01-.02		
Months in Nursing	-.13**	-.38- -.07		
Months in Current Job	.09*	.03-.28		
Work Status	.01	-.09-.13		
LEB Total Score	.19***	.09-.18	.05	.04***
Model 3				
Age	.15**	.01-.02		
Months in Nursing	-.13**	-.38- -.07		
Months in Current Job	.09**	.40-.28		
Work Status	.01	-.09-.12		
LEB Total Score	.01	-.05-.06		
SE Total Score	.31***	.34-.56	.12	.06***
Model 4				
Age	.14**	.00-.02		
Months in Nursing	-.13**	-.37- -.06		
Months in Current Job	.10**	.04-.29		
Work Status	.01	-.08-.13		
LEB Total Score	-.01	-.06-.05		
SE Total Score	.30***	.32-.55		
PE Meaning	.04	-.00-.02		
PE Competence	-.01	-.01-.01		
PE Self-determination	.05	-.02-.14		
PE Impact	-.02	-.08-.05	.12	.00
F(df)	13.35*** (10,991)			

Note. [a] Work Status (0=Full-time, 1=Part-time, Casual). LEB, Leader Empowering Behavior; SE, Structural Empowerment; PE, Psychological Empowerment. β = standardized beta coefficient. *CI* (95%) = 95% confidence interval. *$p < .05$, ** $p < .01$, ***$p < .001$.

4.5.6 Predicting Job Satisfaction with Professional Opportunities

Table 11 shows the series of steps followed for the final set of regression. Among the four demographic variables, only work status was significantly related job satisfaction, explaining 1% of the variance in job satisfaction with Professional Opportunities. Age, months in nursing and months in current job did not contribute to any variance in job satisfaction with Professional Opportunities. After entry of the total mean score of LEB in Model Two, the total variance explained by the model as a whole was 14%. LEB explained an additional 13% of the variance in job satisfaction with Professional Opportunities, after controlling for work status. In Model Three, I entered the total mean score of SE, explaining an additional 11 % of the variance in job satisfaction with Professional Opportunities. In Model Four, I added four PE subscales: Meaning, Competence, Self-determination and Impact. In the final model, the four PE subscale scores did not contribute to the explanation of the variance in job satisfaction with Professional Opportunities over and above what was explained by demographics, LEB and SE. The total variance explained by the final model as a whole was 25%, F (10,996) = 33.56, $p < .001$. In the final model, only three control measures were statistically significant, with SE ($\beta = .40$, $p < .001$) remaining the strongest predictors of job satisfaction with Professional Opportunities followed by LEB ($\beta = .17$, $p < .001$) and work status ($\beta = .06$, $p < .05$).

For each of the statistically significant predictors, higher scores on SE and LEB were associated with higher levels of job satisfaction. Additionally, after controlling for all the other variables in the model, working on a part-time or casual basis, versus working full-time, was associated with higher levels of job satisfaction with Professional Opportunities.

Table 11. Hierarchical Regression Results Predicting Job Satisfaction with Professional Opportunities (*N*= 1067)

	β	*CI* (95%)	R^2	Change in R^2
Model 1				
Age	.02	-.01-.01		
Months in Nursing	.05	-.08-.30		
Months in Current Job	-.02	-.18-.11		
Work Status [a]	.07*	.02-.28	.01	.01*
Model 2				
Age	.08	-.00-.02		
Months in Nursing	.00	-.17-.18		
Months in Current Job	.01	-.12-.15		
Work Status	.06*	.01-.24		
LEB Total Score	.36***	.26-.35	.14	.13***
Model 3				
Age	.06	-.16-.17		
Months in Nursing	.00	-.10-.16		
Months in Current Job	.02	-.10-.16		
Work Status	.06*	.00-.23		
LEB Total Score	.12***	.05-.16		
SE Total Score	.41***	.59-.81	.25	.11***
Model 4				
Age	.06	-.00-.01		
Months in Nursing	-.00	-.17-.16		
Months in Current Job	.02	-.09-.17		
Work Status	.06*	.01-.23		
LEB Total Score	.17***	.04-.16		
SE Total Score	.40***	.55-.80		
PE Meaning	-.01	-.01 -.01		
PE Competence	-.04	-.01 - .01		
PE Self-determination	-.00	-.02 - .01		
PE Impact	.05	-.09 - .08	.25	.00
F(df)	33.56*** (10,996)			

Note. [a] Work Status (0=Full-time, 1=Part-time, Casual). LEB, Leader Empowering Behavior; SE, Structural Empowerment; PE, Psychological Empowerment. β = standardized beta coefficient. *CI* (95%) = 95% confidence interval. *$p < .05$, ** $p < .01$, ***$p < .001$.

Table 12. Summary of Significant Findings by Outcome Variable.

	Global JS	JS Work Culture & Conditions	JS Scheduling & F/W Balance	JS Collegial Relationship	JS Extrinsic Rewards	JS Professional Opportunities
Age	*ns*	*ns*	β = .16***	*ns*	β = .14**	*ns*
Months in Nursing	*ns*	*ns*	*ns*	*ns*	β = -.13**	*ns*
Months in Current Job	*ns*	β = -.09***	*ns*	*ns*	β = .10**	*ns*
Work Status	β = .13***	β = .06***	β = .24***	*ns*	*ns*	β = .06*
LEB Total Score	β = .14***	β = .36***	*ns*	β = .14***	*ns*	β = .17***
SE Total Score	β = .36***	β = .41***	β = .28***	β = .43***	β = .30***	β = .40***
PE Total Score	β = .14***	a	a	a	a	a
PE Meaning	a	*ns*	*ns*	*ns*	*ns*	*ns*
PE Competence	a	*ns*	*ns*	β = .15***	*ns*	*ns*
PE Self-determination	a	β = .06**	*ns*	β = .07*	*ns*	*ns*
PE Impact	a	β = .15***	*ns*	*ns*	*ns*	*ns*

Note. Work Status (0=Full-time, 1=Part-time, Casual). LEB, Leader Empowering Behavior; SE, Structural Empowerment; PE, Psychological Empowerment; JS, Job Satisfaction; F/W, Family/Work; *NS*, None Significant. a= Not entered in Model. β = standardized beta coefficient. *p < .05, ** p < .01, ***p < .001.

4.5.7 Summary of Hierarchical Regression Results

A summary of the significant regression findings for the six outcome variables are presented in Table 12. Among the six outcome variables, the amount of variance explained ranged from 65% for job satisfaction with Work Culture & Conditions to only 12% for job satisfaction with Extrinsic Rewards. Approximately one-third of the variance in global job satisfaction and satisfaction with collegial relationships was explained by the set of predictors.

Four demographic variables helped to predict different dimensions of job satisfaction. Work status was a significant independent predictor for four of the outcome measures. Working on a part-time or casual basis, versus working full-time, was associated with higher levels of global job satisfaction and satisfaction with Work Culture & Conditions, Scheduling & Family/Work Balance, and Professional Opportunities. Older age was associated with job satisfaction with Scheduling & Family/Work Balance, and with Extrinsic Rewards. Nurses who were newer to their current position were generally more satisfied with the Work Culture and Conditions, but less satisfied with Extrinsic Rewards; although nurses who were newer to the profession were more satisfied with Extrinsic Rewards. None of the demographic variables helped to predict job satisfaction with Collegial Relationships.

Structural empowerment was the strongest independent predictor across all six outcome measures with standardized regression coefficients ranging from .28 to .41. Leader empowering behaviors helped to predict job satisfaction for all outcome measures except Scheduling and Family/Work Balance and Extrinsic Rewards, with standardized regression coefficients ranging from .14 to .36. After accounting for the effects of structural empowerment and leader empowering behaviors, psychological empowerment showed only small effects on job

satisfaction (explaining an additional 1-2% of the total variance), but the effects varied by outcome measure.

For global job satisfaction, the effect of the total score for PE was roughly equivalent to that for LEB and work status ($\beta = .14$, $p < .001$). Among the four psychological empowerment subscales (Meaning, Competence, Self-determination and Impact), Self-determination helped to predict job satisfaction with Work Culture and Conditions and Collegial Relationships with standardized regression coefficients of .06 and .07, respectively. A sense of competence helped to predict job satisfaction with Collegial Relationships, and perceived Impact was associated with job satisfaction with Work Culture and Conditions (both with $\beta = .15$, $p < .001$). The psychological empowerment subscale for Meaning was not found to be an independent predictor for any the job satisfaction outcome measures, although it had shown statistically significant relationships with each in the bivariate correlation analyses. Moreover, none of the psychological empowerment subscales helped to predict job satisfaction with Scheduling and Family/Work Balance, Extrinsic Rewards, or Professional Opportunities after accounting for other variables in the model. Thus, examining the relationships between psychological empowerment and job satisfaction with respect to their multi-dimensionality has yielded dimension-specific findings.

Chapter 5: Discussion

The purpose of this study was to examine the relationships between leader empowering behaviors, staff nurses' perceptions of structural and psychological empowerment, and their job satisfaction. The particular focus of the study was to understand the relationship between the four psychological cognitions of psychological empowerment (Meaning, Competence, Self-determination and Impact) and the five dimensions of nurses' job satisfaction (Work Culture and Conditions, Scheduling and Family/Work Balance, Collegial Relationships, Extrinsic Rewards and Professional Opportunities), controlling for demographic characteristics, leader empowering behaviors and structural empowerment. This chapter provides a summary of the study findings and discusses the findings in relation to the published literature. Strength and limitations of the study, implications for nursing practice, and recommendation for future research are also addressed.

5.1 Descriptive Findings of Job Satisfaction among Nurses

The nurses in this study reported the highest level of job satisfaction with respect to the relationships with their colleagues in their workplaces, followed by scheduling and family/work balance, extrinsic rewards and work conditions such as having autonomy and getting feedback from managers. The nurses were least satisfied with scholarly opportunities such as participating in research and publication. These findings are consistent with a study conducted by Price (2002). Price used the same job satisfaction scale (the MMSS) and found that nurses in the U.K. rated their job satisfaction with their nursing peers more highly than other aspects of job satisfaction.

In regards to perceptions of psychological empowerment, the nurses in this study reported the meaning of their work as providing the highest level of psychological empowerment, followed by their sense of competence. The aspect that received the lowest scores was their

perception of impact. This suggests that nurses think their jobs are important, and feel competent in their nursing practice, but they do not feel empowered to make a difference in their workplaces.

5.2 Research Question One and Two

Research Question One asked about the relationship between global measures of job satisfaction, leader empowering behaviors, structural empowerment, and psychological empowerment. Research Question Two focused on the relationships between the four psychological cognitions of psychological empowerment (Meaning, Competence, Self-determination and Impact) and each of the dimensions of nurses' job satisfaction after accounting for demographic characteristics, leader empowering behaviors, and structural empowerment. The research findings revealed positive relationships between leader empowering behaviors, structural empowerment and psychological empowerment, and nurses' job satisfaction. In this study, nurses who perceived that their leaders employed empowering behaviors, that they had access to empowering structures in the workplace, and felt psychologically empowered reported higher levels of job satisfaction. However, among the three variables, structural empowerment was found to be the strongest predictor of global job satisfaction (Research Question One) and the five sub-components of job satisfaction (Research Question Two). Leader empowering behaviors predicted only three of five dimensions of job satisfaction (Work Culture and Conditions, Collegial Relationship and Professional Opportunities) with smaller effects. Psychological empowerment tended to be a weaker predictor after accounting for other variables (SE and LEB), and predicted only two of the five dimensions of job satisfaction (Work Culture and Conditions and Collegial Relationship).

The findings of this study reflect the positive relationships between structural empowerment and job satisfaction that have been found in other studies. Structural empowerment refers to providing employees with access to organizational empowerment structures. The structures include Opportunities, Information, Support, Resources, Formal and Informal power (Kanter, 1993). The findings of this study are consistent with a Canadian nursing survey study by Laschinger (2008) which found that levels of job satisfaction among nurses were significantly influenced by structural empowerment in their organizations. An American nursing research by Sorensen, Seebeck, Scherb, Specht and Lose (2009) also found that structural empowerment plays an important role in staff job satisfaction. Therefore, creating working environments where nurses feel empowered is essential to enhancing their job satisfaction.

This current study also demonstrates positive relationships between leader empowering behaviors and nurses' job satisfaction. Leader empowering behaviors refer to understanding the needs of employees to help them work best and achieve organizational goals. This includes Enhancing the meaningfulness of work, Fostering participation in decision-making, Facilitating goal accomplishment, Expressing confidence in high performance and Providing autonomy from bureaucratic constraints (Hui, 1994). These current findings are well supported by a study (Laschinger, 2008) which found that the roles of nurse leaders were important for creating empowering work environments (Kanter's concept of structural empowerment) which, in turn, increased job satisfaction among nurses in Canada. A Swedish nursing research by Sellgren et al. (2008) also found that the role of leaders and their behaviors were directly related to nurses' job satisfaction.

The current study also reveals positive relationships between psychological empowerment and nurses' global job satisfaction. Psychological empowerment is intrinsic

motivation of employees and this includes psychological perception of Meaning, Competence, Self-determination and Impact (Spreitzer, 1995). The findings of this study are consistent with an earlier research study by Laschinger et al. (2001a) which found that psychological empowerment is positively associated with nurses' job satisfaction. According to Laschinger et al., nurses' job satisfaction is enhanced when they feel empowered by having a sense of autonomy and impact which are psychological cognitions of psychological empowerment. An Austrian nursing study of the effects of psychological empowerment and job satisfaction on nurses' perceptions of the quality of patient care also found that nurses who felt empowered had higher levels of job satisfaction (Leggat et al., 2010).

In regards to relationships with demographic characteristics and the dimensionality of nurses' job satisfaction in this study, nurses with longer working experience in the current jobs reported higher levels of job satisfaction with Work Culture and Conditions. This is consistent with findings that higher levels of job satisfaction among hospital nurses in Norway and China were associated with longer working experiences in a specific workplace (Hayes et al., 2010). This may be because nurses who have worked in the same jobs are more familiar with the culture and conditions of the workplaces and find it satisfying, or the reverse could be true: Nurses who are more satisfied with the work culture and conditions are more likely to stay in the workplaces longer.

Nurses' job satisfaction with Family/Work balance was associated with age and work status. Nurses who are older, or working on a part-time or casual basis reported higher levels of job satisfaction with Scheduling and Family/Work Balance. Similarly, nurses' job satisfaction with Extrinsic Rewards such as salary, benefits and vacations was associated with being in the nursing profession for a longer period. This is consistent with a finding that older nurses were

more satisfied with scheduling, pay and benefits than younger nurses in Canada. (Wilson, Squires, Widger, Cranley, & Tourangeau, 2008). Wilson et al. found that newer nurses were less satisfied with scheduling conditions and extrinsic rewards, but this is not entirely unexpected as these factors are related to seniority in collective agreements in Canada. Moreover, it is reasonable to assume that younger nurses with family, especially those with younger children, may be less satisfied with the relatively inflexible scheduling practices in Canada. They would likely prefer more flexibility in terms of scheduling and vacation times. Working on a part-time or casual basis is a more flexible work practice and this could be related to higher levels of job satisfaction with Scheduling and Family/Work balance. In this regards, providing younger nurses more flexible work practices including job sharing could be considered one means of increasing nurses' job satisfaction (Kane, 1999).

The findings of this study suggest that not all aspects of psychological empowerment are important for all aspects of job satisfaction. Only three of the four dimensions of psychological empowerment were found to be predictive of job satisfaction, and only with respect to two of the five dimensions of job satisfaction. The nurses' sense of meaning of their work was not related to any of the dimensions of job satisfaction, and none of the dimensions of psychological empowerment were significantly associated with nurses' satisfaction with Scheduling and Family/Work Balance, Extrinsic Rewards and Professional Opportunities. This may be because these three dimensions of nurses' job satisfaction (e.g., work scheduling, staffing, salary, benefits, time off and opportunities for publication) are influenced more by organizational structures than by individual motivation or perceptions of psychological empowerment.

The current study found that nurse perceptions of Self-determination and Impact predicted their satisfaction with Work Culture and Conditions; and that Self-determination and

Competence predicted their satisfaction with Collegial Relationships. The nurses who believed that they were able to make a difference at work were the most satisfied with their work environments. Nurses with a stronger sense of competence were also more satisfied with their relationships with their peers; perhaps their sense of competence was associated with a sense of being valued by colleagues.

The findings of this study are supported by organizational and nursing literature. Psychologically empowered nurses who believe that they can shape their work environments and positively influence their organizations (Spreitzer's notion of Impact) have been found to be more satisfied with their jobs (Leggat et al., 2010; Spreitzer, 1995). Self-determination reflects autonomy (Spreitzer, 1995) and this has been directly associated with job satisfaction among nurses (Manojlovich & Laschinger, 2002). In the current study, nurses who felt that they had control over their jobs at work were more satisfied with their working conditions and collegial relationships. This is consistent with a finding by Laschinger and colleagues (1999) that opportunities for participation in decision making processes are vital for empowering nurses. Greco at al. (2006) also maintained that autonomy through participative decision-making is an important aspect of healthy work environments. In a study examining relationships between professional work environments, work satisfaction and patient care quality with a sample of Canadian nurse, Laschinger (2008) found that control over practice was one of the key components of "magnet-like" work environments. She emphasized that nurses' job satisfaction was enhanced when their perceptions of the use of autonomy and control over their work were increased.

In this study, structural empowerment was shown to be the strongest predictor of job satisfaction among nurses, followed by leader empowering behaviors. Psychological

empowerment was a weak predictor over and above leader empowering behaviors and structural empowerment. These findings are consistent with findings by Laschinger et al. (2004) that while structural empowerment had a direct effect on job satisfaction among nurses, psychological empowerment did not (Laschinger et al., 2004). However, a recent systematic literature review of workplace empowerment and nurses' job satisfaction found that structural empowerment was an antecedent of psychological empowerment, leading to increase job satisfaction among nurse (Cicolini, Comparcini, & Simonetti, 2013). This may be because psychological empowerment is intrinsic and can only be indirectly influenced by leader's behaviors.

Based on the findings of this study and other findings from the literature it is reasonable to conclude that nurses are more satisfied with their jobs when they are able to access more tangible organizational empowerment structures (Kanter's notion of structural empowerment). However, the finding that psychological empowerment remained an independent predictor of job satisfaction over and above leader empowering behaviors and structural empowerment, suggests that nurses' job satisfaction may be most effectively enhanced when these three factors operate together. Nurse leaders should facilitate access to empowering structures within the organization, for example by sharing information, enhancing team empowerment and decentralizing decision making processes. This could allow employees to have a sense of autonomy and have beliefs that they can make a difference in the workplaces (Conger & Kanungo, 1998; Manojlovich & Laschinger, 2002) which, in turn, could increase nurses' job satisfaction.

5.3 Implications for Practice and Recommendations for Future Research

The findings of this study have implication for nursing leadership that are consistent with what has been recommended in organizational behavior and nursing literature. Satisfied employees work more effectively and efficiently in their organizations (Laschinger. 2008).

Therefore, it is important for nurse leaders to enhance job satisfaction of their staff through empowering work conditions and leader empowering behaviors. This study demonstrates that nurses' global job satisfaction is associated with leaders' use of empowering behaviors and both structural and psychological empowerment. This suggests that organizations and nurse leaders should promote both structural and psychological empowerment to their employees by using leader empowering behaviors to enhance their satisfaction in the workplaces. Nurse leaders could structurally empower their staff by providing access to information, resources, supports and opportunities within the work environments. In comparison with structural empowerment, psychological empowerment is related to something less tangible—individual nurses' intrinsic motivations or beliefs about their work; therefore, leaders may have less of a direct influence on nurses' perceptions of psychological empowerment. However, this study suggests that it may be beneficial for leaders to help their staff recognize areas where they do have autonomy and potential impact as a means of enhancing staff satisfaction with Work Culture and Conditions. Similarly, helping nurses to recognize their own competence may increase their job satisfaction with Collegial Relationship. Encouraging nursing staff to actively participate in decision-making processes would be an effective way to increase structural and psychological empowerment in workplaces.

Nurse leaders should ensure empowering factors at work, providing access to organizational empowering structures in order to make their employees have a greater sense of autonomy and impact at the workplaces. In addition, nurse leaders should contribute to the psychological empowerment of their staff by using participative management strategies in the workplace. For example, having regular staff meetings, where nurses feel safe not only to respond to ideas raised by nursing managers, but also to make suggestions and raise their own

concerns, could be one participative management strategy. Encouraging staff involvement in revising or improving unit policies and practices, and strengthening their role in the discharge planning of patients may help staff to feel more autonomous, which could enhance their satisfaction with working conditions and with their relationships with their colleagues , which in turn could enhance job satisfaction among nurses..

Given that psychological empowerment did not function as expected, I am left with two avenues of speculation: (i) that the Psychological Empowerment Scale does not measure psychological empowerment of nurses as conceptualized, suggesting that more development and psychometric testing is needed; and (ii) that the hypothesized relationships (i.e., the theory) that psychological empowerment is associated with job satisfaction is not an accurate representation of reality. With respect to both, it is particularly interesting that the nurses' sense of meaning of their work was not found to be related to any of the dimensions of job satisfaction, although it was the subscale of psychological empowerment that received the highest scores. This raises the question whether or not the meaning of their nursing role is an aspect of psychological empowerment, as well as whether meaning is related to job satisfaction as we have measured it. Perhaps meaning is related more to an intrinsic sense of satisfaction with the role of nursing, rather than satisfaction with their particular position or work situation.

The current study is one of a few that has examined the direct effect of psychological empowerment on job satisfaction among nurses. Therefore, further research endeavors should continue to address both the psychometric evaluation of the Psychological Empowerment Scale and the impact of psychological empowerment on other nursing outcomes, as well as investigating factors that could strengthen psychological empowerment of nursing staff and subsequently enhance their job satisfaction. Moreover, the findings of this study reinforce the

importance of controlling for structural empowerment, in any future research that examines nurses' job satisfaction.

5.4 Strengths and Limitations of the Study

To my knowledge, no other nursing research has been conducted on the relationships between the various dimensions of psychological empowerment and the various aspects of job satisfaction. Therefore, this study's findings may contribute new knowledge to important questions about the sources of nurses' job satisfaction. This study may help hospital administrators and nursing leaders to better address factors associated with staff job satisfaction, which is essential in organizational effectiveness and productivity. In the long term, if job satisfaction can be enhanced, staff recruitment and orientation costs may be reduced; thus study findings may also then contribute to the financial stability of healthcare institutions.

However, several limitations exist in this study. First, the causal inferences to be derived from the study are limited by the cross-sectional nature of the data. This study used data which was collected at a single period time, therefore, leading to a chance that results may be misleading or ambiguous (Polit & Beck, 2012).

A second limitation is related to the method of data collection. This study only used a self-reported written questionnaire to assess all constructs. Although using questionnaires has benefits such as being flexible and economical, there are also some drawbacks to this data collection method, such as the possibility of mono-method bias (i.e., a tendency to answer all written questions in a particular pattern) and a relatively superficial quality of the data (Polit & Beck, 2012). It is possible that more valid and meaningful data could have been collected if there had been third party observations of leader empowering behaviors and if the qualitative data on psychological empowerment had been collected by interviewing the nurse participants.

Conducting secondary analysis of data also meant that I was limited to the measures used in the original study. If I was designing an original study, I may have chosen to include other control variables (e.g., other individual or organization factors) or other instruments to measure the key constructs of interest. For example, the theory testing of this study may have been limited in relation to the reliability and validity of the McCloskey/Mueller Satisfaction Scale which was used to measure nurses' job satisfaction in the primary study. There has been a call in the nursing literature to refine the measure to be more appropriate to non-US nurse populations since the instrument was developed in the US. For these reasons, I conducted a preliminary study to examine factor structures of the MMSS where I found five factors instead of the original eight factors. The preliminary study demonstrated good reliability and validity of the revised MMSS, and this revised scale was used in the current study. However, further psychometric evaluations of the revised measure of job satisfaction need to be done with different populations in various contexts.

Further research is needed to provide a deeper and more comprehensive understanding of the relationships between leader empowering behaviors, structural empowerment and psychological empowerment on job satisfaction among nurses.

5.5 Conclusion

This study represents a modest beginning in examining the relationship of each dimension of psychological empowerment and each aspect of nurses' job satisfaction. This study adds to previous knowledge regarding the positive effects of both structural and psychological empowerment on job satisfaction of nurses. This study provides evidence that of the three key predictors studied, structural empowerment has the strongest relationship with job satisfaction, followed by the leaders' uses of empowering behaviors. The nurses' sense of impact was the

strongest predictor of job satisfaction with Work Culture and Conditions, and this was followed by staff perception of self-determination. The nurses' sense of competence was the strongest predictor of job satisfaction with Collegial Relationship, and this was followed by self-determination. Therefore, leaders should help their staff to develop those psychological cognitions by using empowering strategies. The strategies could include providing access to organizational empowering structures such as sharing information and enhancing team empowerment. Leaders should also encourage their staff to actively participate in decision-making processes. These will help nurses have a greater sense of autonomy and impact in the workplace, which in turn, increases their job satisfaction.

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Appendices

Appendix A - The McCloskey/Mueller Satisfaction Scale

How satisfied are you with the following aspects of your current job? Please read the following statements and circle your answer using a 1 (Very Dissatisfied) to 5 (Very Satisfied) scale.

Question	Scale				
1. Salary	1	2	3	4	5
2. Vacation	1	2	3	4	5
3. Benefit package (insurance, retirement)	1	2	3	4	5
4. Hours that you work	1	2	3	4	5
5. Flexibility in scheduling your hours	1	2	3	4	5
6. Opportunity to work straight days	1	2	3	4	5
7. Opportunities for part time work	1	2	3	4	5
8. Weekends off per month	1	2	3	4	5
9. Flexibility in scheduling your weekends off	1	2	3	4	5
10. Compensation for working weekends	1	2	3	4	5
11. Maternity leave time	1	2	3	4	5
12. Child care facilities	1	2	3	4	5
13. Your immediate supervisor	1	2	3	4	5
14. Your nursing peers	1	2	3	4	5
15. The physicians you work with	1	2	3	4	5
16. The delivery of care method used in your unit (e.g. functional, team, primary)	1	2	3	4	5
17. Opportunities for social contact at work	1	2	3	4	5

18. Opportunities for social contact with your colleagues after work	1	2	3	4	5
19. Opportunities to interact professionally with other disciplines	1	2	3	4	5
20. Opportunities to interact with faculty	1	2	3	4	5
21. Opportunities to belong to department and institutional committees	1	2	3	4	5
22. Control over what goes on in your work setting	1	2	3	4	5
23. Opportunities for career advancement	1	2	3	4	5
24. Recognition of your work from superiors	1	2	3	4	5
25. Recognition of your work from peers	1	2	3	4	5
26. Amount of encouragement and positive feedback	1	2	3	4	5
27. Opportunities to participate in nursing research	1	2	3	4	5
28. Opportunities to write and publish	1	2	3	4	5
29. Your amount of responsibility	1	2	3	4	5
30. Your control of work conditions	1	2	3	4	5
31. Your participation in organizational decision making	1	2	3	4	5

Appendix B - The Newly Derived Muller/McCloskey Satisfaction Scale

How satisfied are you with the following aspects of your current job? Please read the following statements and circle your answer using a 1 (Very Dissatisfied) to 5 (Very Satisfied) scale.

Question	Scale				
1. Salary	1	2	3	4	5
2. Vacation	1	2	3	4	5
3. Benefit package (insurance, retirement)	1	2	3	4	5
4. Hours that you work	1	2	3	4	5
5. Flexibility in scheduling your hours	1	2	3	4	5
6. Opportunity to work straight days	1	2	3	4	5
7. Opportunities for part time work	1	2	3	4	5
8. Weekends off per month	1	2	3	4	5
9. Flexibility in scheduling your weekends off	1	2	3	4	5
10. Compensation for working weekends	1	2	3	4	5
11. Maternity leave time	1	2	3	4	5
12. Your immediate supervisor	1	2	3	4	5
13. The physicians you work with	1	2	3	4	5
14. The delivery of care method used in your unit (e.g. functional, team, primary)	1	2	3	4	5
15. Opportunities for social contact at work	1	2	3	4	5
16. Opportunities for social contact with your colleagues after work	1	2	3	4	5
17. Opportunities to interact professionally with other disciplines	1	2	3	4	5

18. Control over what goes on in your work setting	1	2	3	4	5
19. Recognition of your work from superiors	1	2	3	4	5
20. Recognition of your work from peers	1	2	3	4	5
21. Amount of encouragement and positive feedback	1	2	3	4	5
22. Opportunities to participate in nursing research	1	2	3	4	5
23. Opportunities to write and publish	1	2	3	4	5
24. Your control of work conditions	1	2	3	4	5
25. Your participation in organizational decision making	1	2	3	4	5

Appendix C - Leader Empowerment Behavior Scale

Please read the following statements and circle your answer using a 1 (Strongly Disagree) to 7 (Strongly Agree) scale.

Question	Scale						
1. My leader helps me understand the importance of my work to the overall effectiveness of my organization.	1	2	3	4	5	6	7
2. My leader helps me understand how my job fits into "the bigger picture."	1	2	3	4	5	6	7
3. My leader helps me understand how the objectives and goals of my department relate to that of the entire organization.	1	2	3	4	5	6	7
4. My leader helps me realize that I am a part of a larger team.	1	2	3	4	5	6	7
5. My leader helps me understand the purpose of what I do at work.	1	2	3	4	5	6	7
6. My leader makes me believe that my work can "make a difference" in this organization.	1	2	3	4	5	6	7
7. My leader provides many opportunities for me to express my opinions.	1	2	3	4	5	6	7
8. My leader often consults me on issues pertaining to work.	1	2	3	4	5	6	7
9. My leader encourages me to take the initiative in expressing my job related opinions.	1	2	3	4	5	6	7
10. My leader makes many decisions together with me.	1	2	3	4	5	6	7
11. My leader encourages me to make important decisions that are directly related to my job.	1	2	3	4	5	6	7
12. My leader recognizes my good work by using it as an example for others.	1	2	3	4	5	6	7
13. My leader always shows confidence in my ability to go a	1	2	3	4	5	6	7

good job.							
14. My leader believes that I can handle demanding tasks.	1	2	3	4	5	6	7
15. My leader focuses on my successes rather than my failures.	1	2	3	4	5	6	7
16. My leader believes in my ability to improve even when I make mistakes.	1	2	3	4	5	6	7
17. My leader helps me overcome obstacles to my performance.	1	2	3	4	5	6	7
18. My leader helps me to identify what I need in order to achieve my performance goals.	1	2	3	4	5	6	7
19. My leader provides the opportunities for training so that I can perform effectively.	1	2	3	4	5	6	7
20. My leader always makes sure that I have the resources needed for effective performance.	1	2	3	4	5	6	7
21. My leader helps me to develop good working relationships with those people who can affect my performance.	1	2	3	4	5	6	7
22. My leader takes a “sink or swim” attitude towards the difficulties that arise in my work.	1	2	3	4	5	6	7
23. My leader encourages me to contact directly the people from whom I need information.	1	2	3	4	5	6	7
24. My leader makes it more efficient to do my job by keeping the rules and regulations simple.	1	2	3	4	5	6	7
25. My leader insists that I rigidly follow rules and procedures even when they interfere with my performance.	1	2	3	4	5	6	7
26. My leader allows me to do my job my way.	1	2	3	4	5	6	7
27. My leader encourages me to cut through bureaucracy to get things done.	1	2	3	4	5	6	7

Appendix D - The Conditions of Work Effectiveness Questionnaires – II (CWEQ- II)

Please read the following statements and circle your answer using a 1 (Strongly Disagree) to 5 (Strongly Agree) scale.

Question	Scale				
How much of each kind of opportunity do you have in your present job?					
1. Challenging work	1	2	3	4	5
2. The chance to gain new skills and knowledge on the job	1	2	3	4	5
3. Tasks that use all of your own skills and knowledge	1	2	3	4	5
How much access to information do you have in your present job?					
4. The current state of the hospital	1	2	3	4	5
5. The values of top management	1	2	3	4	5
6. The goals of top management	1	2	3	4	5
How much access to support do you have in your present job?					
7. Specific information about things you do well	1	2	3	4	5
8. Specific comments about things you could improve	1	2	3	4	5
9. Helpful hints or problem solving advice	1	2	3	4	5
How much access to resources do you have in your present job?					
10. Time available to do necessary paperwork	1	2	3	4	5
11. Time available to accomplish job requirements	1	2	3	4	5
12. Acquiring temporary help when needed	1	2	3	4	5
How much opportunity do you have for these activities in your present job?					
13. Collaborating on patient care with physicians	1	2	3	4	5

14. Being sought out by peers for help with problems	1	2	3	4	5
15. Being sought out by managers for help with problems	1	2	3	4	5
16. Seeking out ideas from professionals other than physicians(physiotherapists, occupational therapist, dieticians)	1	2	3	4	5
In my work setting/job					
17. The rewards for innovation on the job are	1	2	3	4	5
18. The amount of flexibility in my job is	1	2	3	4	5
19. The amount of visibility of my work-related activities within the institution is	1	2	3	4	5

Appendix E - Psychological Empowerment Scale

Please read the following statements and circle your answer using a 1 (Strongly Disagree) to 5 (Strongly Agree) scale.

Question	Scale				
1. The work I do is very important to me.	1	2	3	4	5
2. My job activities are personally meaningful to me.	1	2	3	4	5
3. The work I do is meaningful to me.	1	2	3	4	5
4. I am confident about my ability to do my job.	1	2	3	4	5
5. I am self-assured about my capabilities to perform my work activities.	1	2	3	4	5
6. I have mastered the skills necessary for my job.	1	2	3	4	5
7. I have significant autonomy in determining how I do my job.	1	2	3	4	5
8. I can decide on my own how to go about doing my work.	1	2	3	4	5
9. I have considerable opportunity for independence and freedom in how I do my job.	1	2	3	4	5
10. My impact on what happens in my department is large	1	2	3	4	5
11. I have a great deal of control over what happens in my department.	1	2	3	4	5
12. I have significant influence over what happens in my department.	1	2	3	4	5

Appendix F - Demographic Information

Please provide us with information regarding yourself and your workplace.

1. Your gender (circle number):
    1. Female
    2. Male
2. Your present age: _____ years
3. Your experience in your present job: _____ years
4. Your experience in nursing to date: _____ years
5. Your current specialty area is: _____
6. Work status (Circle number):
    1. Full-time
    2. Regular part-time
    3. Casual
7. Highest level of education (Circle number):
    1. Hospital Diploma
    2. College Diploma
    3. BScN
    4. MScN
    5. Other _____