

Running head: IMPACT OF STAFF ENGAGEMENT

**IMPACT OF STAFF ENGAGEMENT ON NURSE SATISFACTION/RETENTION  
AND PATIENT OUTCOMES OF PATIENT SATISFACTION AND NDNQI®  
INDICATORS.**

A thesis presented to the faculty of the Graduate School of Western Carolina University in partial fulfillment of the requirements for the degree of Master of Science in Nursing.

By

Dawn Marie Neuhauser

Western Carolina University, MS(N) Program

Director: Dr. Sharon Jacques, PhD, RN, Nursing

Committee members: Dr. Sharon Metcalfe, PhD, RN, Nursing

Professor Ramona Whichello, MN, RN, NEA-BC, Nursing

Meghan McCann, MSN, RN, NE-BC, University of North Carolina Health System

April 2011

# IMPACT OF STAFF ENGAGEMENT

## TABLE OF CONTENTS

	Page
List of Tables.....	iii
List of Figures.....	iv
Abstract.....	v
Introduction.....	7
Purpose.....	8
Justification.....	8
Theoretical Framework.....	9
Assumptions.....	10
Research Questions.....	10
Definition of Terms.....	11
Literature Review.....	12
Empowerment.....	12
Engagement.....	15
Empowerment and Engagement.....	16
Related Literature.....	19
Methodology.....	22
Research Design/Setting/Population and Sample.....	22
Protection of Human Subjects.....	23
Data Collection.....	23
Data Analysis/Limitations.....	24
Results.....	25
Discussion.....	32
References.....	35

## IMPACT OF STAFF ENGAGEMENT

### LIST OF TABLES

Table	Page
1. Intercorrelations Among Study Variables.....	13
2. Results from Three Studies Linking Empowerment and Magnet® Characteristics.....	14
3. Nursing Satisfaction Results.....	26
4. Unit RN Job Plans for Next Year.....	26
5. RN Turnover Information.....	27
6. Patient Satisfaction Results.....	27
7. Total Falls.....	29
8. Total Falls with Injury.....	30
9. Hospital Acquired Pressure Ulcer.....	30
10. Percent of Patients with Physical Restraint.....	31

# IMPACT OF STAFF ENGAGEMENT

## LIST OF FIGURES

Figure	Page
1. Earlier model derived from Kanter's theory.....	13
2. Illustration of model and study results.....	16
3. Later model derived from Kanter's theory.....	18
4. Results trend from first Quarter of 2007 to last Quarter of 2009.....	28
5. Group ranking trend from first Quarter of 2007 to last Quarter of 2009.....	28

## **IMPACT OF STAFF ENGAGEMENT**

### **ABSTRACT**

#### **IMPACT OF STAFF ENGAGEMENT ON NURSE SATISFACTION/RETENTION AND PATIENT OUTCOMES OF PATIENT SATISFACTION AND NDNQI® INDICATORS**

Dawn Neuhauser

Western Carolina University (April 2011)

Director: Dr. Sharon Jacques

This study will seek to determine the influence that programs possessing Magnet® characteristics have on nurse work engagement and subsequently job satisfaction, retention, and patient outcomes. Studies to date support the impact of workplace empowerment structures on fostering employee engagement and reducing burnout. These studies have linked increased engagement or decreased burnout to outcomes such as job retention and patient safety. Results of these studies provide valuable insight into concepts that influence nurses' perceptions of their work environment, which can be utilized by organizational leadership to enhance recruitment and retention strategies as well as quality initiatives impacting patient safety and outcomes.

The focus of this thesis will be on whether increased engagement through staff involvement and development impacts practice and thus improves patient outcomes. Data analysis will be done comparing nurse satisfaction, nurse retention, patient satisfaction, and patient outcomes as measured by the National Database of Nursing Quality Indicators (NDNQI®) prior to the implementation of Magnet® initiatives and at the time of submission of application for Magnet® designation. This aspect of nursing

## IMPACT OF STAFF ENGAGEMENT

practice and professionalism is important because it demonstrates the influence of nursing development through engagement and intellectual capital on job satisfaction and retention as well as evidenced-based practices and patient outcomes.

Kanter's (1977/1993) theory on structural empowerment is the framework for this study. Kanter purported that structural factors within the workplace have a greater influence on employee work attitudes and behaviors than their own personal predispositions. Further literature review revealed studies on the impact of developing human capital on nurse turnover as well as suggesting a relationship between the concepts of Magnet® Nursing Services and patient and organizational outcomes. The impetus for achieving Magnet® goals requires the engagement of nursing staff in the processes that impact their professional and clinical practice. In turn, nursing satisfaction, retention, and the patient outcomes of satisfaction and NDNQI® indicators are affected.

Engaging staff in the processes that impact their own professional practice remains a challenge for nursing management. This study will add to existing evidence on how staff engagement and development of intellectual capital influences job satisfaction and patient outcomes, thus giving management additional resources to influence staff involvement.

## CHAPTER I: BACKGROUND AND RATIONALE

### **Introduction**

Although the nursing shortage has slowed due to the recent recession, it is anticipated that the nursing shortage will reach a significant level in the United States as we move towards the year 2020. As the aging nursing population reaches retirement and the demand for registered nurses (RNs) increases, it is expected that the nursing shortage will begin to rise by the middle of the next decade (American Association of Colleges of Nursing, 2010). Literature speaks well to the multiple contributing factors to nursing shortages, many of which have endured over the decades, but there is little evidence of sustainable solutions. Efforts towards easing the shortage should not only address retention of nurses currently working within the system but should also ensure that the nursing work environment is attractive to newcomers.

Nursing leaders need to explore what factors directly impact the recruitment and retention of nurses. Fox and Abrahamson (2009) challenged that, “In order to alleviate staffing shortages, the societal and occupational factors which discourage people from choosing to practice nursing must be examined” (p. 237). There is a considerable body of literature studying the factors that impact RN turnover. Although low wages and inadequate benefits are often quoted as reasons for leaving the profession, other societal and environmental factors that influence job satisfaction and commitment to the organization are also indicated. These include but are not limited to job stress, insufficient staffing, opportunity, and work motivation (Pellico, Brewer, & Kovner, 2009). A focus on implementing measures that address these factors and influence job

satisfaction while also ensuring quality patient care and improved patient outcomes will be necessary to ameliorate the growing shortage while enhancing retention.

The hospital environment has been shown to have a significant effect on nursing and patient outcomes. Covell's (2008) middle range theory of nursing intellectual capital postulated that continued professional development as influenced by variables within the work environment can influence patient outcomes as well as organizational outcomes. Further literature review reveals studies on the impact of developing human capital on nurse turnover. Efforts to create an empowered work environment such as those put forth by the principles of the Magnet® Status program can improve retention. Achieving these goals requires cultivating intellectual capital and engaging nursing staff in the processes that impact their professional and clinical practice.

### **Purpose**

The purpose of this study is to determine the impact of nurse engagement on job satisfaction, retention, and patient outcomes. The focus will be on whether increased engagement resulting from environments with Magnet® characteristics impacts nursing practice thus improving patient outcomes.

### **Justification**

Studies to date have linked increased engagement or decreased burnout to outcomes such as job retention and patient safety. Results of these studies provide valuable insight into concepts that influence nurses' perceptions of their work environment which can be utilized by organizational leadership to enhance recruitment and retention strategies as well as quality initiatives impacting patient safety and outcomes. In anticipation of an increase in the shortage of nurses, it is even more

important that researchers explore strategies which will give nurse managers the tools needed to impact nurses' work satisfaction. With the increase in pay for performance initiatives such as those already implemented by The Centers for Medicare and Medicaid Services (CMS) and the focus on patient safety goals such as those already implemented by The Joint Commission (TJC), organizations need to be aware of influences that impact their work environment and subsequently the quality of patient care and outcomes (U.S. Department of Health and Human Services, 2010; The Joint Commission, 2010).

### **Theoretical Framework**

Kanter's (1977/1993) theory on structural empowerment is the theoretical framework on which this study is based. Kanter purported that structural factors within the workplace have a greater influence on employee work attitudes and behaviors than their own personal predispositions. These organizational empowerment structures include information, support, resources, and opportunities.

These structures as defined by Kanter are:

- *Information* means having access to or knowledge of the organization's policies and goals.
- *Support* entails feedback and guidance from peers and as well as emotional support.
- *Resources* refers to having access to supplies, materials, or equipment needed to carry out the work of the organization.
- *Opportunity* is defined as future prospects and expectations for mobility and growth.

Access to these structures is facilitated by formal and informal characteristics. Formal power is influenced by characteristics that increase autonomy and creativity and informal power by relationships and support systems. Furthermore, employees who have access to these empowerment structures have increased levels of organizational commitment, autonomy, and job satisfaction and, in turn, work more efficiently.

### **Assumptions**

Numerous studies have supported Kanter's theory of structural empowerment. These studies have linked nurse empowerment with work engagement, job satisfaction, and patient outcomes. Based on results of these studies, the following can be expected:

- Empowering work environments are likely to promote employee engagement.
- Increased employee engagement can result in employees who are more satisfied with their work environment and have higher levels of job commitment.
- Organizations with high levels of satisfaction and commitment have better outcomes.
- Environments which demonstrate Magnet® characteristics have increased nurse engagement.

### **Research Questions**

What relationship exists between increased nurse engagement and job satisfaction and job commitment?

What relationship exists between increased job satisfaction and job commitment and patient outcomes?

### Definition of Terms

The following terms are defined in context of how they are used in the study:

- *Job satisfaction* refers to RN satisfaction as determined by NDNQI® survey results.
- *Job commitment* refers to RN job plans reflecting intent to remain in direct patient care.
- *Retention* is determined conversely by the rate of RNs leaving the organization.
- *Patient satisfaction* refers to patient satisfaction with nursing care and response to patient needs.
- *Patient outcomes* refers to outcome measures that are directly impacted by nursing care as determined by NDNQI® survey results.

## CHAPTER II: LITERATURE REVIEW

### **Empowerment.**

Significant research related to empowerment and work engagement as it relates to nursing and based on Kanter's theory of structural empowerment has been completed. Kanter (1977/1993) described a model where structural factors in the work setting are posited to influence the ability of employees to get work done. Kanter also acknowledged the role that management serves in the provision of these structural factors. Several studies explore the impact of workplace empowerment as it relates to nursing.

Laschinger and Wong (1999) explored the relationship between empowerment and accountability and the impact on productivity and work effectiveness. The model in this study tested the impact of formal and informal power on access to empowerment structures and its posited positive association with accountability. Results of the study, which was conducted in a large academic medical center located in a central Canadian province, indicated that empowerment does have a positive impact on accountability and perceived work effectiveness. Based on a 7-point Likert scale, results showed that nurses in the study perceived their overall work effectiveness to be high ( $M = 5.45$ ,  $SD = .90$ ).

In a model derived from Kanter's theory, Spence-Laschinger, Finegan, and Shamian (2001) linked nurse work empowerment and organizational trust to the two organizationally valued outcomes of work satisfaction and organizational commitment (See Figure 2.1). The study sampling consisted of nurses who worked in urban tertiary hospitals in Canada. Results of this study were consistent with Kanter's view of the impact that structural empowerment has on employees with the strongest relationships

being found between trust in management and nurses' perceived access to information and support (See Table 2.1).

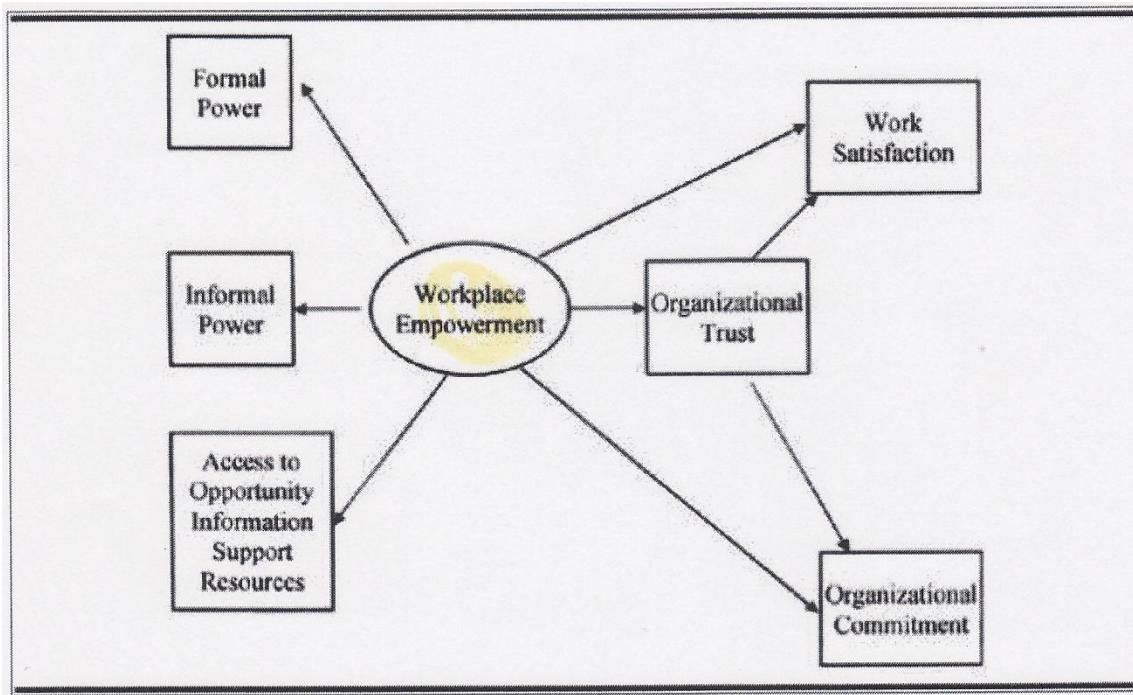


Figure 2.1: Earlier model derived from Kanter's theory linking nurse work empowerment and organizational trust. Spence-Lashinger, Finegan, & Shamian, 2001, p. 13.

**Table 2.1: Intercorrelations Among Major Study Variables**

	Trust and Confidence in Management	Work Satisfaction	Affective Commitment	Continuance Commitment
Total Empowerment*	0.54	0.56	0.4	-0.18
Opportunity Information	0.33	0.40	0.32	-0.10
Support Resources	0.49	0.36	0.29	-0.13
Formal Power	0.46	0.50	0.38	-0.21
Informal Power	0.33	0.39	0.18	-0.11
Affective Commitment	0.36	0.41	0.38	-0.11
Continuance Commitment	0.13	0.30	0.24	-0.06
Work Satisfaction	0.46	0.60	—	-0.04
	-0.21	-0.03	0.04	—
	0.52		0.61	-0.03
<i>p</i> = .0001 Total Scale				

Spence-Lashinger, Finegan, & Shamian, 2001, p. 21.

In another study involving nurses from three populations who worked in urban tertiary hospitals in Ontario, Spence-Laschinger, Almost, and Tuer-Hodes (2003) tested a theoretical model linking nurses' perception of workplace empowerment, Magnet® hospital characteristics, and job satisfaction. In the study, Magnet® characteristics were defined as perceptions of autonomy, control over practice environment, and collaboration with physicians within the work setting. Results of the studies provided evidence of a link between empowerment and Magnet® hospital characteristics and supported the relevance of using strategies derived from Kanter's theory of creating nursing work environments that influence professional practice and job satisfaction. Scores indicated that nurses believed their job settings were moderately empowering and had moderate levels of Magnet® characteristics (See Table 2.2). This study also built upon other research designed to study the impact of Magnet® hospital characteristics on multiple factors, which will be discussed later.

<b>Table 2.2. Results from Three Studies Linking Empowerment and Magnet® Characteristics</b>			
	Study1	Study 2	Study 3
Job settings empowering	M = 17.9, SD = 3.3	M = 18.37, SD = 2.82	M = 20.96, SD = 3.98
Level of Magnet® characteristics	M = 2.69, SD = .55	M = 2.78, SD = .50	M = 3.20, SD = 3.08
	r = .61, P = .0001	r = .49, P < .0001	r = .57, P = .0001

Derived from results of study by Spence-Laschinger, Almost, and Tuer-Hodes (2003).

Researchers tested Kanter's theory on the Chinese nurse population to determine the impact of nurse empowerment on job satisfaction. Results of the study supported that nurses who viewed their environment as empowering were more likely to provide quality care and experience satisfaction with their job (Ning, Zhong, Libo, & Qiujie, 2009).

Although the study revealed that Chinese nurses perceived themselves to be moderately empowered compared to nurses in Western countries, attributed to having less access to opportunities, the correlation between structural empowerment and job satisfaction was significant ( $r = 0.547$ ,  $P < 0.01$ ).

### **Engagement.**

Maslach and Leiter (1997) introduced the theory of work engagement, demonstrating the relationship of burnout and job engagement as polar opposites on a continuum. Burnout is measured by three dimensions—exhaustion, cynicism and professional efficacy—where high scores on exhaustion and cynicism and low scores on professional efficacy are indicative of burnout. The three measures of engagement—energy, involvement, and efficacy—are assumed then to be the direct opposite of the three dimensions of burnout. Maslach and Leitner explored the relationship among six areas of work life on the components of burnout/engagement. These six areas are workload, community, control, reward/recognition, fairness, and values congruence.

Schaufeli and Bakker (2004) further defined engagement as, "...a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption" (p. 295). In their study, *vigor* is characterized by high levels of energy and mental resilience. *Dedication* is characterized by a sense of significance, enthusiasm, and pride, and *absorption* as being fully concentrated and happily engrossed in one's work. In this study, the authors suggested that engagement is more likely to exist when job resources such as performance feedback, coaching, and collegial support are present. Results of the study confirmed that burnout is predicted by job demand but can also be impacted by lack of job resources when considering that lack of job resources increases

job demands. Engagement is predicted by job resources and is related to turnover intention (See Figure 2.2). The study illustrated that the negative psychological state of burnout and the positive psychological state of engagement have similar roles in different processes, where one is driven by an energetic process that is influenced by job demands and the other by a motivational process that is driven by job resources respectively.

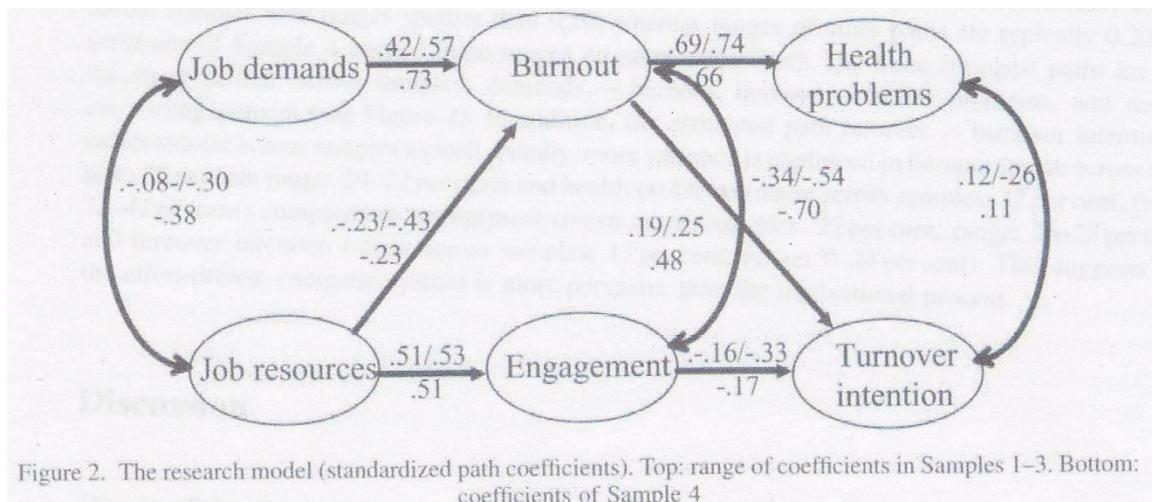


Figure 2. The research model (standardized path coefficients). Top: range of coefficients in Samples 1–3. Bottom: coefficients of Sample 4

Figure 2.2: Illustration of model and study results. Schaufeli & Bakker, 2004, p. 307.

### Empowerment and Engagement

Further research continues to build on the previous studies involving empowerment and engagement, much of this involving the work of Laschinger and colleagues. Her work not only links structural empowerment with areas of the work life which promote work engagement but seeks to identify relationships to outcomes related to nurses and nursing care as it builds upon the work life model. As well, these studies help to support Kanter's claim that social structure factors in the workplace empower workers to get their

jobs done and Maslach and Leitner's identification of the six areas of work life and their impact on engagement.

Laschinger and Finegan (2005) explored work life and engagement/burnout among nurses working in urban academic hospitals across the province of Ontario. In the study, the authors sought to link structural empowerment with Maslach and Leitner's six areas of work life (workload, control, reward, community, fairness, and values) to physical and mental health. As illustrated by the model in Figure 2.3, the study postulated that if employees are provided with the support, resources, and access to information to perform their roles, they would be more likely to experience control over their workload, feel rewarded for accomplishments, or agree management practices were fair. This would lead to greater work engagement and conversely to less burnout resulting in better physical and mental health. Results of the study supported the impact of empowerment on the six areas of workload. The nurses reported the work environment to be only somewhat empowering with the greatest degree of mismatch in worklife areas relating to workload, reward, and community. They were more positive about control over work and the fit between personal values and those of the organization. Moderate levels of burnout were reported with 44.7% of that categorized as high. This study was replicated by Laschinger, Wong, and Greco (2006) with nurses working full-time or part-time in acute-care hospitals in Ontario, focusing on the impact of empowerment on person-job fit. Results showed perceptions of total empowerment were moderate ( $M = 18.43$ ,  $SD = 3.41$ ). Nurses felt they had the greatest access to opportunity ( $M = 3.98$ ,  $SD = 0.81$ ). The greatest degree of fit was felt in the areas of work life related to community, value congruence, and rewards. Fifty-three percent of the nurses reported high levels of burn-

out ( $M = 3.17$ ,  $SD = 1.50$ ). The study supported the role organizational structures play in enhancing work life and access to empowering work structures in creating positive responses to work. Results also suggested that empowerment affected nurse's engagement/burnout through its effect on person-job fit and the role managers play in providing organizational structures that promote a greater sense of fit.

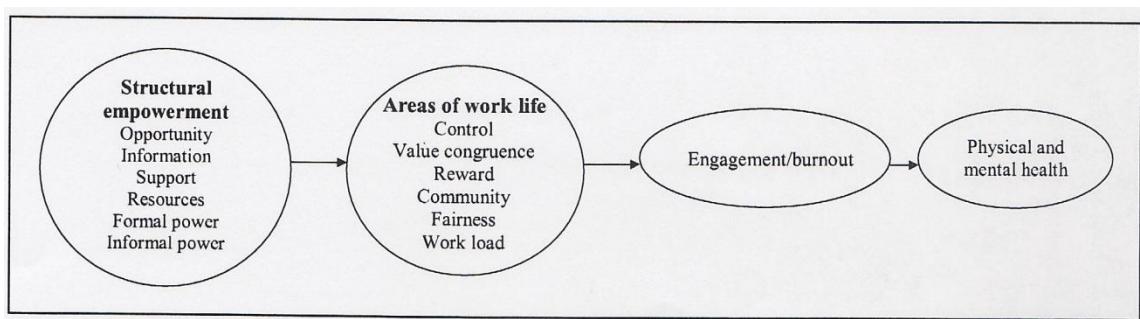


Figure 2.3: Later model derived from Kanter's theory linking structural empowerment to the six areas of work life. Laschinger and Finegan, 2005, p. 441.

Results from a study by Laschinger and Leitner (2006), using a subset of data reflective of nurses working in Ontario and Alberta, Canada, continued to build on previous research in studying the use of an extension of the Nursing Worklife Model as the theoretical framework to determine the impact of nursing work environments, linking professional nursing practice to burnout and, subsequently, to patient safety outcomes. Five worklife factors identified by Lake (2002) in the Practice Environment Scale in the Nursing Work Index were included in the model. The five factors were effective nursing leadership, staff participation in organizational affairs, adequate staffing, support for a nursing model of patient care, and effective nurse/physician relationships. Results from the study showed an association between patient safety outcomes and the quality of nursing practice with the strongest correlations with adverse events being staffing ( $r = -0.30$ ), emotional exhaustion ( $r = 0.30$ ), and depersonalization ( $r = 0.34$ ).

Furthermore, it suggested that, “...when nurses perceive that their work environment supports professional practice, they are more likely to be engaged in their work, thereby ensuring safe patient care” (p. 265).

Manojlovich and Laschinger (2007) tested a modified Nursing Worklife Model to examine the impact of structural empowerment on professional work environment factors that lead to job satisfaction. The Nursing Worklife Model included two extensions meant to explain the nursing outcome of job satisfaction (instead of burnout) and to determine whether structural empowerment could be added. The results of the study demonstrated the role of empowerment in creating a positive work environment with formal power being most highly correlated with nurse participation and informal power most highly correlated with collegial relations. The use of the extended model resulted in a more thorough description of how distinct elements of professional practice environments are interrelated and can predict job satisfaction. This study sampled American nurses who practice in a different health care system than the Canadian nurses sampled in the previous studies.

### **Related Literature**

Other related research that has been occurring simultaneously with work on empowerment and engagement has focused on links with outcomes and with Magnet® characteristics. Much of this research has been based on work done by Aiken and her colleagues, which asserts that organizational structures which foster nurse's autonomy should enhance patient outcomes (Laschinger, Shamian, & Thomson, 2001). Laschinger et al.'s study supported the earlier work of Aiken in exploring the impact of Magnet® hospital characteristics of autonomy, control, and physician relationships on nurses'

perceptions of trust, job satisfaction, and quality outcomes. The authors also pointed out the role that creating environments that empower nurses plays in both nurse and patient outcomes and the potential impact this would have on recruitment and retention.

In an effort to study the link among empowering work settings, Magnet® hospital characteristics, and patient safety, Armstrong and Laschinger (2006) concluded that the combination of structural empowerment and Magnet® hospital characteristics was a significant predictor of nurse's perceptions of a patient safety climate. This study was later replicated with similar findings again supporting the importance of hospital leadership ensuring access to organizational elements required for nurses to optimally perform their jobs (Armstrong, Laschinger, & Wong, 2009).

An expanded study designed to determine the perceived effectiveness of empowerment and engagement on nurses based on experience compared the differences in results between new graduates and experienced nurses. Results supported previous studies indicating the importance of work engagement as a mediator between empowerment and perceived effectiveness (Spence-Laschinger, Wilk, Cho, & Greco, 2009). However, the perception was stronger in the group of experienced nurses. This is more indicative of the need for new graduates to have a basic organizational structure that enables them to practice according to what they learned in their educational programs, suggesting that access to information, support, and resources is fundamental to their work experience (Spence-Laschinger et al., 2009). For the experienced nurses, the study was more suggestive of the importance of engagement as a mechanism of empowering work conditions leading to greater feelings of work effectiveness. Results of this study provided invaluable information for nurse managers to use in providing support and

resources that more closely meet the needs of the nurses and ultimately impacting recruitment and retention.

## CHAPTER III: METHODOLOGY

### **Research Design**

The research design utilized in this study is a correlational design. Two main questions are addressed. The study seeks to determine the correlation between increased nurse engagement and job satisfaction and job commitment. The second question addressed is the correlation between increased job satisfaction and job commitment on patient outcomes. Data sets already collected were analyzed. The data sets included nursing staff satisfaction and retention rates over a three year period and patient outcomes of patient satisfaction and National Database of Nursing Quality Indicators (NDNQI®) measures over the same three year period.

### **Setting**

The study seeks to determine the correlation between increased nurse engagement which is assumed to occur in settings which have Magnet® status or possess Magnet® characteristics. Data sets from a nursing department in a hospital setting seeking Magnet® status and therefore possessing characteristics were analyzed. The data sets cover a three year period reflective of the application period and final submission. Data collected in years 2007 and 2009 were used. The hospital is a university based hospital located in the Southeastern United States.

### **Population and Sample**

The data for staff satisfaction reflects responses from eligible registered nurses at the time the survey was opened. For 2007 results, 921 nurses responded yielding a response rate of 64% and for 2009 results, 1,234 nurses responded yielding a response rate of 77%. The same nursing population is reflected in the data for nursing turnover

rates for the same study years. Patient satisfaction results represented patient responses collected and reported quarterly by discharge date for the study years. Patient responses for 2007 range from 700 to just over 900 each quarter. Patient responses for 2009 were not included in the data set. Patient outcomes reported through NDNQI® for the study years were analyzed. All data was de-identified as to individual staff member or patient. The sampling frame was a purposive, nonprobability sampling method. A limitation to the sample is the exclusion of patient response numbers for patient satisfaction result for 2009. Data for both survey years were obtained by the same outside company.

### **Protection of Human Subjects**

This study did not involve human subjects and therefore did not require development of or procurement of informed consent. This study did involve the use of data from another agency and required approval from that agency. An inquiry was made to the Institutional Review Board (IRB) of the other agency on February 7, 2011 as to the requirements necessary to obtain approval. A response was received on February 8, 2011 from the IRB co-chair indicating that approval from the IRB was not necessary but that a data use agreement would be required. The data use agreement was obtained on March 4, 2011 and was submitted with the IRB request form to the Western Carolina University IRB on March, 7, 2011. Approval from the Western Carolina University IRB for request #2011-169 was received on March 16, 2011.

### **Data Collection and Field Procedures**

Data sets were obtained from the nursing department of the hospital setting. Problems encountered in collecting the data included inconsistencies in how the data were provided. This was encountered with the nursing satisfaction and patient

satisfaction results. This required exclusion of some components because of the inability to match like data from the survey years.

### **Data Analysis**

Nursing satisfaction results from 2007 and 2009 addressing job enjoyment, task, RN-RN interactions, RN-MD interactions, decision making, autonomy, professional status, pay, professional development, nursing management, and nursing administration were compared. A comparison of RN intent to remain in direct patient care and RN turnover rates was done. These surveys were conducted by NDNQI® and results then provided to the participating hospital. Comparative data were provided to determine ranking with other like institutions. Some of the comparative data owned by the American Nurses Association (ANA) requiring permission to publish was not used. However, where possible, ranking of scores compared to other institutions were done. The patient satisfaction results represented responses directly related to nursing and included courtesy and respect from nurses, response time, careful listening by nurses, pain, overall satisfaction, and nurses overall. The NDNQI patient outcomes of falls, falls with injury, pressure ulcers, and restraint use were examined. Tables and line graphs were used to display and compare data.

### **Limitations**

The study was a retrospective study utilizing data already collected and compiled. This hindered the completion of some statistical analysis. This also prevented consideration of other interventions unknown to the investigator that might have influenced the data.

## CHAPTER IV: RESULTS

### Sample Characteristics

Since analysis was done on data already collected, there was no change in sample size as discussed in the previous chapter.

Examining nursing satisfaction and commitment, Table 4.1 shows the greatest variance in scores indicating improved satisfaction with or attitudes about professional status (3.22), RN-RN interactions (2.59), and nursing administration (2.46). Themes that have the least or negative variance in scores included pay (- 1.27), nursing management (0.69), and job enjoyment (1.09). Scores in all categories indicated at least moderate satisfaction overall for both years except with RN-RN interactions, professional status, and professional development where scores indicated high satisfaction for both years. Scores related to RN-MD interactions indicating moderate satisfaction increased to >60 indicating high satisfaction. Scores for 2009 were above the National Mean (not shown) in seven out of the eleven categories. These were task, RN-RN interactions, RN-MD interactions, decision-making, professional status, pay, and nursing management.

Results of RN commitment analysis (See Table 4.2.) compares RN job plans for the next year. The survey results are divided by the percentage of RNs planning to remain in direct patient care and those planning to leave. Of those planning to stay, the results are broken out into those planning to stay on same unit, new unit in same hospital, or outside the hospital. Results for those planning to leave are broken out into beginning a new career or retiring. The table illustrates results from the survey years and the variance. There was no appreciable change in responses. The overall percentage

<b>Table 4.1. Nursing Satisfaction Results</b>		<b>Average Scores</b>		<b>Variance (2009 - 2007)</b>
		<b>2007</b>	<b>2009</b>	
Job Enjoyment		54.64	55.73	1.09
Task		49.01	50.92	1.91
RN-RN Interactions		67.85	70.44	2.59
RN-MD Interactions		58.2	60.54	2.34
Decision Making		47.9	49.71	1.81
Autonomy		50.85	52.5	1.65
Professional Status		64.39	67.61	3.22
Pay		44.08	42.81	-1.27
Professional Development		61.68	63.82	2.14
Nursing Management		58.82	59.51	0.69
Nursing Administration		48.23	50.69	2.46

**Key** < 40 = Low Satisfaction 40-60 = Moderate Satisfaction >60 = High Satisfaction

<b>Table 4.2. Unit RN Job Plans for Next Year</b>						
	% of Unit RNs reporting plans to remain in nursing				% of Unit RNs reporting plans to leave nursing	
	Remain in direct patient care			% Leave direct patient care	% Begin new career	% Retire
	% Same unit	% New unit Same hospital	% Outside this hospital			
<b>Average of all units in hospital for 2007</b>	81	6	6	5	2	1
<b>Average of all units in hospital for 2009</b>	79	8	4	5	2	1
<b>Variance (2009-2007)</b>	-2	2	-2	0	0	0

planning to stay in direct care was the same; however, there was a slight increase in respondents planning to stay within the same hospital but new unit and a slight decrease in those planning to leave the hospital.

The turnover information (Table 4.3.) shows the turnover rate for the study years. This information is conversely indicative of retention of RNs.

<b>Table 4.3. RN Turnover Information</b>						
Fiscal Year	Year Begin	Year End	Yb+Ye/2	Terms	Turnover	
2007	3105	3284	3194.5	167	5.23%	
2009	3563	3795	3679	95	2.58%	
Variance (2009-2007)					-2.65%	

Comparing patient satisfaction results regarding nursing from the study years shows an increase in scores from 2007 to 2009 with the greatest increase in courtesy and respect and standard overall. Examining trend lines from the first Quarter of 2007 to the last Quarter of 2009, satisfaction results are trending upwards (See Figure 4.1.). Figure 4.2 illustrates the trend line based on the peer group ranking. This trend is more indicative of an improvement in patient satisfaction results over the study period.

<b>Table 4.4. Patient Satisfaction Results</b>			
Nursing questions	2007 mean score	2009 mean score	Variance (2009-2007)
Courtesy and Respect	90.5	92.3	2.3
Response Time	84.6	86	1.4
Careful Listening	88.3	90	1.7
Standard Overall	83.2	85.1	1.9
Nurses Overall	87.1	88.8	1.7

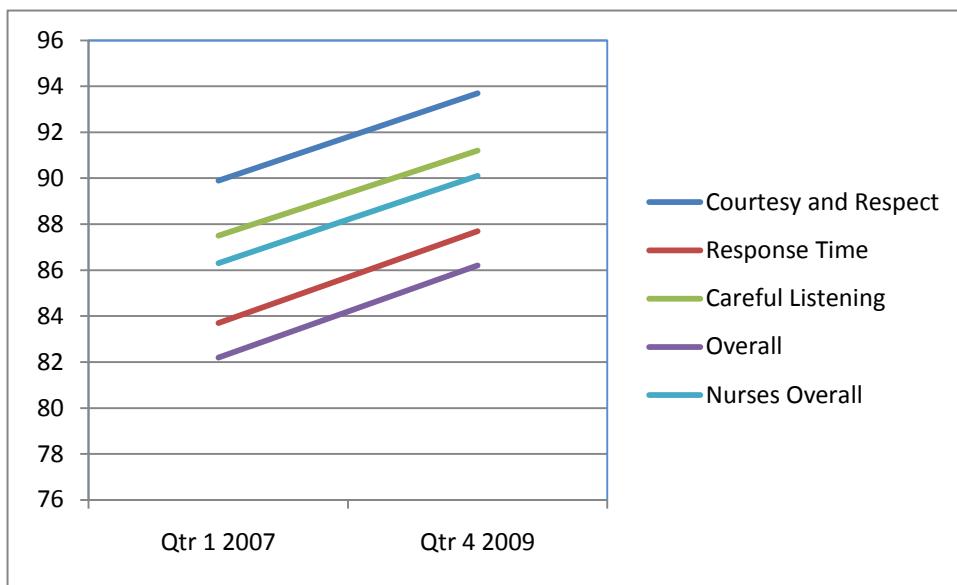


Figure 4.1. Results trend from first Quarter of 2007 to last Quarter of 2009.

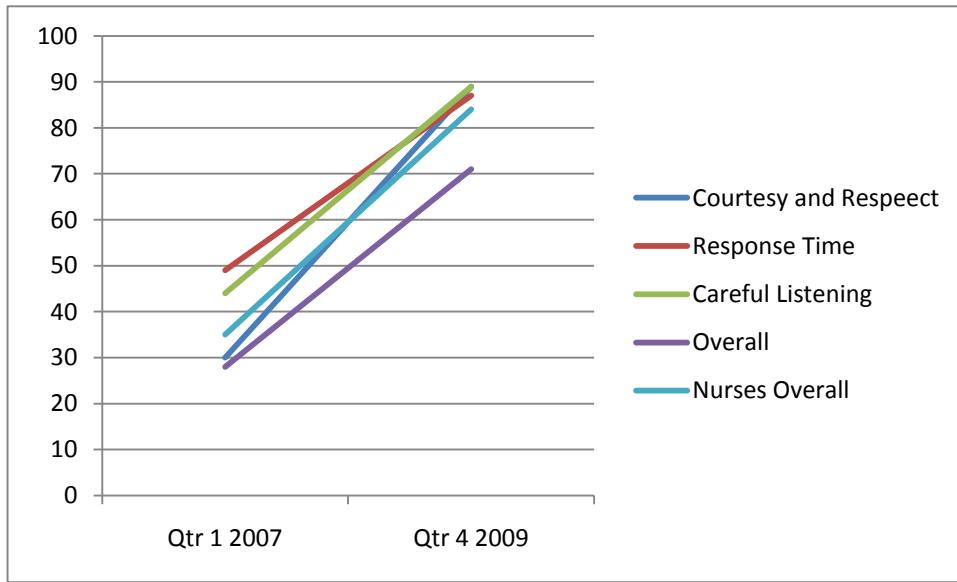


Figure 4.2 Group ranking trend from first Quarter of 2007 to last Quarter of 2009.

Patient outcomes analysis included NDNQI® measures addressing fall rates for total number of falls and falls with injury, percentage of acquired pressure ulcers, and

percentage of patient restraint usage. Units included in the data set represent adult care units. Data results were not consistently available for pediatric units for the study period.

The data set for percentage of restraints included all Psychiatric units inclusive of Pediatrics. This data was included in the analysis. Tables 4.5 and 4.6 show the overall fall rates and fall rates with injury for the study period reflecting a decrease of 0.27 in the overall fall rate and no change in the fall rate with injury. When broken out by Critical Care/ Step-down and Medical/Surgical departments, the results show a greater decrease in overall falls and falls with injury in the Critical Care/ Step-down departments when compared to Medical/Surgical which showed a slight increase for both. Results for acquired pressure ulcers were similar as illustrated in Table 4.7. The acquired pressure ulcer rates decreased overall by 1.34. The decrease in rate was slightly higher in the Critical Care/ Step-down departments when compared to Med/ Surg.

<b>Table 4.5. Total Falls</b>			
Column1	2007	2009	Variance (2009- 2007)
<b>Overall Rates</b>	2.52	2.25	-0.27
<b>Critical Care and Stepdown Rates</b>	2.16	1.63	-0.53
<b>Med/Surg Rates</b>	3	3.1	0.1

<b>Table 4.6. Total Falls with Injury</b>			
Column1	2007	2009	Variance (2009- 2007)
<b>Overall Rates</b>	0.7	0.7	0
<b>Critical Care and Stepdown Rates</b>	0.63	0.51	-0.12
<b>Med/Surg Rates</b>	0.8	0.96	0.16

<b>Table 4.7. Hospital Acquired Pressure Ulcer</b>			
Column1	2007	2009	Variance (2009-2007)
<b>Overall Rates</b>	8.6	7.26	-1.34
<b>Critical Care and Step-down Rates</b>	15.35	13.89	-1.46
<b>Medical/Surgical Rates</b>	4.67	3.39	-1.28

Use of restraints over the study period is shown in Table 4.8. There was a slight increase in restraint use overall for the study period. The data also illustrate the highest usage of restraints occurs in the Critical Care/ Step-down departments which saw an increase of 2.44 over the study period. The Medical/Surgical departments which included Psychiatric units, saw a slight decrease of 0.4 over the study period.

<b>Table 4.8. Percent of Patients with Physical Restraints</b>			
Column1	2007	2009	Variance (2009-2007)
<b>Overall Rates</b>	7.03	7.42	0.39
<b>Critical Care and Step-down Rates</b>	17.36	19.8	2.44
<b>Medical/Surgical Rates (including Psychiatric units)</b>	0.6	0.2	-0.4

## CHAPTER V: DISCUSSION

The results of the study suggest that there is a relationship between nurse engagement and job satisfaction. With the assumption that nurse engagement was increased as a result of developing/possessing Magnet® characteristics over the study period, job satisfaction was increased. The results indicated a greater increase in attitudes towards professional status, RN-RN interactions, and nursing administration. The satisfaction survey is designed to evaluate staff satisfaction specific to the areas that are emphasized in the Magnet Recognition Program ® tenets. The results may be reflective of areas that received more emphasis by the institution during the process.

There was no change in the RN commitment to stay in direct care for the study period. The turnover rate for the period dropped by over half conversely impacting retention in a positive way. Although an expected outcome of increased engagement, other outside factors need to be taken into consideration, such as the economic changes that occurred during this same period.

In evaluating the impact of increased job satisfaction and commitment on patient outcomes, the study suggests a positive correlation with patient satisfaction and patient outcomes related to falls and acquired pressure ulcers. Results indicated an increase in patient satisfaction results related to nurses over the study period especially when group ranking was compared to peers. The increase in how patients rated nurses in treating them with courtesy and respect may be reflective of transference of improving nursing behaviors and attitudes.

In evaluating NDNQI patient outcome measures, there is improvement over the period evidenced by a slight decrease in total falls; however, there is no change in the

overall rate of falls with injury. When broken out by like departments, there was a more appreciative decrease in total falls and falls with injury seen in the Critical Care/Step-down departments. The percentage of hospital acquired pressure ulcers also decreased overall which was again more pronounced in the Critical Care/Step-down departments. Use of physical restraints increased over the study period. Consideration of other influences may have had an impact on these results, such as the changes in definition of physical restraints over the time period or less funding for sitters.

In general, the study suggests a relationship between increased engagement and job satisfaction and improved patient outcomes. The intent of the study was to build upon previous research on the impact of increased engagement. Utilizing data sets already collected was challenging, and a more thorough evaluation of the data was somewhat prohibited by how the results were reported and received. There may also have been other interventions that occurred during this time period that impacted the data but were unknown to the investigator. These limitations weakened the statistical reliability of the data.

Future studies narrowing the scope of the study would be beneficial in determining the relationship between the variables. Replicating studies that build further upon Manojlovich & Laschinger's (2007) Nursing WorkLife Model and reflect practices of American nurses would also be advantageous. This would also provide data from sources outside of those currently being used by Magnet® programs and thus reduce potential biases.

With the nursing shortage expected to increase over the next decade and the challenges this creates for nursing administration, it is ever more important to establish

strategies that will enhance the work life for nursing. This will not only aid in the retention of experienced nurses, but will also facilitate the recruitment of highly qualified, new nurses. The impact that nurses have on the quality of patient care and outcomes is also of growing importance. Establishing a link with what factors influence nursing's work life and how that relates to providing quality care and improved patient outcomes will be key for health care organizations. Whether or not this is done by the adoption of programs such as Magnet®, research supports the implementation of such strategies.

### References

- American Association of Colleges of Nursing. (2010, September 10). *Nursing Shortage Fact Sheet*. Retrieved October 9, 2010, from <http://www.aacn.nche.edu>
- Armstrong, K. J., & Laschinger, H. (2006). Structural empowerment, Magnet hospital characteristics, and patient safety culture: Making the link. *Journal of Nursing Care Quality, 21*(2), 124-132. Retrieved from <http://www.ovid.com>
- Armstrong, K., Laschinger, H., & Wong, C. (2009). Workplace empowerment and Magnet hospital characteristics as predictors of patient safety climate. *Journal of Nursing Care Quality, 24*(1), 55-62. Retrieved from <http://www.ovid.com>
- Covell, C. L. (2008). The middle-range theory of nursing intellectual capital. *Journal of Advanced Nursing, 63*(1), 94-103. doi:10.1111/j.1365-2648.2008.04626.x
- Fox, R. L., & Abrahamson, K. (2009). A critical examination of the U.S. nursing shortage: Contributing factors, public policy implications. *Nursing Forum, 44*(4), 235-244. doi:10.1111/j.1744-6198.2009.00149.x
- Kanter, R. M. (1977, 1993). *Men and women of the corporation*. New York: Basic Books.
- Lake, E. T. (2002). Development of the practice environment scale of the nursing work index. *Research in Nursing & Health, 25*(3), 176-188. doi:10.1002/nur.10034
- Laschinger, H. K., & Finegan, J. (2005). Empowering nurses for work engagement and health in hospital setting. *The Journal of Nursing Administration, 35*(10), 439-449. Retrieved from <http://www.ovid.com>

- Laschinger, H. K., & Leitner, M. P. (2006). The impact of nursing work environments on patient safety outcomes: The mediating role of burnout/engagement. *The Journal of Nursing Administration*, 36(5), 259-267. Retrieved from <http://www.ovid.com>
- Laschinger, H. K., Shamian, J., & Thomson, D. (2001). Impact of Magnet hospital characteristics on nurse's perceptions of trust, burnout, quality of care, and work satisfaction. *Nursing Economic\$*, 19(5), 209-219. Retrieved from <http://www.ebscohost.com>
- Laschinger, H. K., & Wong, C. (1999). Staff nurse empowerment and collective accountability: Effect on perceived productivity and self-related work effectiveness. *Nursing Economic\$*, 17(6), 308-316, 351. Retrieved from <http://www.ebscohost.com>
- Laschinger, H. K., Wong, C. A., & Greco, P. (2006). The impact of staff nurse empowerment on person-job fit and work engagement/burnout. *Nursing Administration Quarterly*, 30(4), 358-367. Retrieved from <http://www.ovid.com>
- Manojlovich, M., & Laschinger, H. (2007). The nursing worklife model: Extending and refining a new theory. *Journal of Nursing Management*, 15, 256-263.  
doi:10.1111/j.1365-2834.2007.00670.x
- Maslach, C., & Leiter, M. (1997). *The truth about burnout: How organizations cause personal stress and what to do about it*. San Francisco, CA: Jossey-Bass.
- Ning, S., Zhong, H., Libo, W., & Qiujiel, L. (2009). The impact of nurse empowerment on job satisfaction. *Journal of Advanced Nursing*, 65(12), 2642-2648.  
doi:10.1111/j.1365-2648.2009.05133

- Pellico, L. H., Brewer, C. S., & Kovner, C. T. (2009). What newly licensed registered nurses have to say about their first experiences. *Nursing Outlook*, 57, 194-203. doi:10.1016/j.outlook.2008.09.008
- Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior*, 25, 293-315. doi:10.1002/job.248
- Spence-Laschinger, H. K., Almost, J., & Tuer-Hodes, D. (2003). Workplace empowerment and magnet hospital characteristics: Making the link. *The Journal of Nursing Administration*, 33(7/8), 410-422. Retrieved from <http://www.ovid.com>
- Spence-Laschinger, H. K., Finegan, J., & Shamian, J. (2001). The impact of workplace empowerment, organizational trust on staff nurses' work satisfaction and organizational commitment. *Health Care Management Review*, 26(3), 7-23. Retrieved from <http://www.ovid.com>
- Spence-Laschinger, H. K., Wilk, P., Cho, J., & Greco, P. (2009). Empowerment, engagement and perceived effectiveness in nursing work environments: Does experience matter? *Journal of Nursing Management*, 17, 636-646. doi:10.1111/j.1365-2834.2008.00907.x
- The Joint Commission. (2010). *National patient safety goals*. Retrieved December 11, 2010, from <http://www.jointcommission.org>
- U.S. Department of Health And Human Services. (2010). *Centers for Medicare & Medicaid Services*. Retrieved December 11, 2010, from <http://www.cms.gov>