

THE RELATIONSHIP OF WORK STRESSORS AND PERCEIVED ORGANIZATIONAL
SUPPORT ON FRONT LINE NURSE MANAGER WORK ENGAGEMENT

by

ANNE MARIE SIMMONS

A dissertation submitted to the Graduate Faculty in Nursing in partial fulfillment of the
requirements for the degree Doctor of Philosophy,

City University of New York.

2013

© 2013

ANNE MARIE SIMMONS

All Rights Reserved

This manuscript has been read and accepted for the
Graduate Faculty in Nursing in satisfaction of the
dissertation requirement for the degree of Doctor of Philosophy.

Donna M. Nickitas, PhD, RN, CNAA, BC,FAAN

Date

Chair of Examining Committee

Keville Frederickson, EdD, RN, FAAN

Date

Executive Officer

Carol Roye, EdD, RN, CPNP

Barbara Berney, PhD, MPH

Rose Sherman, EdD, RN, NEA-BC, CNL, FAAN
Supervisory Committee

THE CITY UNIVERSITY OF NEW YORK

Abstract

The Relationship of Work Stressors and Perceived Organizational Support on Front Line Nurse
Manager Work Engagement

by

Anne Marie Simmons

Advisor, Professor Donna Nickitas

The purpose of this study was to examine the relationship of work stressors and perceived organizational support on front line nurse manager work engagement. A non-experimental descriptive, cross sectional design examined the relationship in a convenience sample of 97 front line nurse managers from the New York tri-state area and members of the American Organization of Nurse Executives. Instruments used to measure work engagement, work stressors and perceived organizational support, were: (1) the *Utrecht Work Engagement Scale (UWES)*; (2) *Challenge-Hindrance Stressor Scale* and (3) *Survey of Perceived Organizational Support (SPOS)*. Pearson's correlation and linear regression analyses indicated support for the relationship between all variables. There was a negative direct relationship between work engagement and work stressors and a positive significant relationship between perceived organizational support and work engagement. The conceptual framework of Kahn's work engagement and the Job Demands-Resources Model revealed that organizational support is needed to promote front line nurse manager work engagement. Work engagement, perceived organizational support and work stressors are professional environmental factors that impact the leadership and well-being of FLNM. These factors, properly promoted and implemented, lead to FLNM's success, retention and job performance.

Keywords: work engagement, work stressors, perceived organizational support, nurse manager, leadership, work environment.

Dedication

This dissertation is dedicated to my husband Larry and my daughters Melissa & Kelsey, who have endured and supported my desire to complete a goal set out long ago with smiles and everyday remind me that I am loved. I wish to also dedicate this manuscript to my mother, Jacqueline and father, Edward, both of whom were lost too soon, but instilled a thirst for knowledge and a belief that all is possible.

Acknowledgements

Throughout this journey, paths converge and separate, but I have not traveled alone. I wish to express my gratitude to my graduate advisor and doctoral chairperson Dr. Donna M. Nickitas. Without her support, guidance, persistence and wise counsel, this dissertation would not have been possible. Her thoughtfulness, caring and friendship have truly been a gift.

Dr. Keville Frederickson has been a mentor, leader and supporter throughout my long pursuit of this doctorate. This would not have been possible without her encouragement, strength and true belief in me. I am especially thankful for Dr. Carol Roye, Dr. Rose Sherman, Dr. Barbara Berney, Dr. Marge Lunney and Dr. Martha Whetsell for their insight, support and guidance throughout this journey. It would not have come to fruition without their expertise.

I am thankful to the wonderful friends who shared gifts of friendship, support, wine, chocolate, hugs and encouragement along the way. To Bernadette, Jeanne, Valerie, Marge, Mary, Danna, Sondra and Susan, all the best and much love to my friends. May we always be in each other's hearts.

This work could not have been completed without the support of my family and friends. These include my siblings, Lori, Ed & Cathy, Jackie & Jim and Rick. Carol Vicino, a mentor, friend and confidant when one was really needed. My friends, Christine, Karen, Susan, Harriet, Jane, Jill & Charlie, Wendy & Arnie, and Amy & Jon who were always there with support and encouragement. As well as my surrogate family, Ma, Bobby, Michele, Mike, Barbara, John, Ruthie and Frank. This could not have been done without all of you.

To a wonderful group of nurse managers at New York Hospital for Joint Diseases who shared their thoughts, insights and wisdom about being a nurse manager at the front line. At the early beginning of this journey, they summed it up quite well.

“We stay because we care about our staff and patients”.

Table of Contents

Abstract	iv
List of Tables	xi
List of Figures	xii
Chapter I	1
Introduction.....	1
Front Line Nurse Manager Turnover	1
Engagement.....	3
Work Stressors	7
Perceived Organizational Support	8
Problem Statement.....	9
Work Engagement (WE).....	9
Work Stressors (WS)	9
Perceived Organizational Support (POS).....	10
Delimitations.....	10
Conceptual Framework.....	11
Work Engagement and the Job Demands–Resources Model.....	11
Research Question	14
Hypotheses.....	14
Need for the Study	15
Summary	17
Chapter II	19
Literature Review.....	19
Work Engagement	19
Work Engagement & Job Demands/Resources	24
Employee Work Engagement	26
Work Engagement & Performance	29
Summary of Work Engagement.....	29
Work Stressors	30
Challenge–Hindrancer Stressor Relationship.....	31
Perceived Organizational Support	34
Age and Engagement	36
Conceptual Framework.....	37

Summary	38
Chapter III.....	40
Methodology	40
Research Design and Rationale.....	40
Sample.....	40
Data Collection Procedures.....	42
Sample Size.....	44
Instruments.....	45
Participant Eligibility Screening	45
Demographic Information.....	45
Utrecht Work Engagement Survey (UWES)	45
Survey of Perceived Organizational Support (SPOS).....	47
Challenge-Hindrancel Stressor Scale	49
Data Collection Procedures.....	51
SurveyMonkey Questionnaire.....	52
Protection of Human Subjects	53
Data Analysis	53
Summary	55
Chapter IV.....	57
Results.....	57
Data Collection Results and Response Rates.....	57
Assessment of the Reliability of the Study Instruments	62
Descriptive Statistics.....	63
Psychometric Evaluation of the Instruments.....	67
Utrecht Work Engagement Scale (UWES).....	68
Challenge-Hindrancel Stressor Scale	69
Survey of Perceived Organizational Support (SPOS).....	69
Research Question	71
Hypothesis Testing.....	71
Regression Analysis.....	71
Hypotheses	72
Summary of Results.....	80
Chapter V	81

Discussion.....	81
Overview.....	81
Summary of Study Findings	82
Work Engagement	82
Work Stressors and Work Engagement	83
Perceived Organizational Support as a Moderator.....	86
Age and Work Engagement	87
Theoretical Implications	88
Relationship between Work Stressors, Perceived Organizational Support and Work Engagement.....	90
Chapter VI.....	92
Implications and Recommendations	92
Critique of the Study	93
Implications for Current Practice	95
Implications for Education.....	95
Implications for Practice	96
Implications for Further Research.....	98
Conclusions.....	99
Appendices.....	101
References.....	120

List of Tables

Table

1.	Sample Demographics.....	61
2.	Descriptive Statistics of Nursing and Nursing Management Experience.....	62
3.	Assumptions of Normality	64
4.	Means, Standard Deviations & Scales Reliability Statistics.....	68
5.	Pearson's' Correlation Coefficients of Variables	71
6.	Pearson's Correlation Coefficients of Work Engagement & Work Stressors Sub-scales.....	73
7.	Regression Statistics for Predictors & Interaction on Work Engagement	75
8.	Crosstabs/ Chi Square Statistics for Work Engagement & Nursing Unit Type..	77
9.	Crosstabs/ Chi Square Statistics for Included & Excluded Demographics	79

List of Figures

Figure

1.1	Proposed Relationship of Study Variables	12
4.1	Work Engagement Histogram	65
4.2	Work Stressors Histogram	66
4.3	Perceived Organizational Support (POS) Histogram	67
5.1	Demonstrated Relationship of Work Stressors, Perceived Organizational Support and Work Engagement	87

“With ordinary talent and extraordinary perseverance, all things are attainable”

— [Thomas Fowell Buxton](#)

Chapter I

Introduction

Front line nurse managers (FLNMs) are the organizational leaders that are the connecting layer between staff nurses and executive management in acute care hospitals. Their scope of responsibility includes fostering healthy work environments that support and sustain the quality, safety and costs for the organization (American Organization of Nurse Executives [AONE], 2008; American Nurses Credentialing Center [ANCC], 2004; Sherman & Pross, 2010). They are attuned to trends that impact the healthcare system, help to oversee care coordination, ensure quality patient outcomes, introduce evidence-based practice, mentor staff, especially novice staff nurses; and manage job satisfaction, commitment, staff productivity and a healthy work environment (Sherman, Edwards, Giovengo & Hilton, 2009). These leadership responsibilities, increased job demands, and mandated quality performance measures can add to the complexity and stressors of the FLNM's role. Recognition of the value and meaningfulness of one's contribution to an organization's work is a fundamental human need and an essential requisite to personal and professional development. People who are not recognized feel invisible, undervalued, unmotivated and disrespected (American Association of Critical-Care Nurses [AACN], 2005).

Front Line Nurse Manager Turnover

The American Organization of Nurse Executives (AONE, 2005) suggests that turnover and retention of front line nurse managers is of concern, since they provide an important leadership role and are closely linked to staff nurse satisfaction, retention and cost (Cathcart, Jeska, Karnas, Miller, Pechacek & Rheault, 2004; Duffield, Roche, Blay & Stasa, 2011; Kleinman, 2004). As a result, the costs of nurse manager turnover (or retention) might be more

than estimated on the surface. Front line nurse manager turnover, vacancy and retirement can be costly not only in terms of finances and position succession but may disrupt the organizational and team functioning at the point of care (Balogh-Robinson, 2012). Front line nurse manager turnover cost is comparable to staff nurse turnover, approximately 1.3 times annual salary and benefits (Jones, 2008; Jones & Gates, 2007; O'Brien-Pallas, Tomblin, Murphy, Shamian, Li & Hayes, 2010). In order to promote quality nursing care and a healthy work environment, organizations must seek new ways to recruit staff to become nurse managers, retain them in that position, entice nurses into leadership roles and build a succession plan for future nurse leaders. Front line nurse managers' engagement is crucial to both quality care and patient and staff nurse satisfaction (Espinoza, Lopez-Saldana & Stonestreet, 2009; O'Neil, Morjikian & Cherner, 2008; Laschinger, et al., 2006).

Leadership flourishes and organizational work is accomplished when an employee experiences engagement and personal growth is stimulated. The degree of work engagement of leadership personnel may be influenced by work stressors and perceived organizational support within the health care environment. FLNMs are the leadership personnel responsible for the continuity of the organization's strategic goals and mission within exceedingly complex, increasingly diverse environments (Zastocki & Holly, 2010). Front line nurse managers engage in decision making and problem solving that influences the establishment of work flow and structure for patient care delivery (Stichler, 2008). Effective nursing leadership is increasingly linked to quality patient safety goals and outcomes (Institute for Healthcare Improvement [IHI], 2010; Institute of Medicine [IOM], 2004; Laschinger & Wong, 2006). The FLNM's leadership and relationship with staff can positively influence the practice environment and staff nurses' job satisfaction (Zori, Nosek, & Musil, 2010). Work stressors and perceived organizational support

may influence front line nurse manager's engagement and the nature and quality of service provided within the healthcare organization. Even though a growing body of evidence supports the relationship between the engagement of the employee at work and organizational outcomes, factors such as work stressors and organizational support relationships with the FLNM's work engagement are still not fully understood.

Engagement

Engagement is defined as “ the extent to which employees commit to something or someone in their organization, how hard they work and how long they stay as a result of that commitment” (*Corporate Leadership Council, 2004, p. 4*). This definition includes a rational and emotional commitment, leading to discretionary effort and intent to stay (Vance, 2006). Contemporary organizations expect employees to be proactive and show initiative, take responsibility for their own professional development and be committed to high performance standards. Thus, they need employees who are energetic, dedicated and engaged in their work (Bakker, Schaufeli, Leiter, & Taris, 2008; González-Romá, Schaufeli, Bakker, & Lloret, 2006). Employee engagement has been identified as the leading indicator of intent to stay within a given organization (Vance, 2006). The current health care environment remains extremely chaotic with high levels of patient acuity, decreased length of hospital stay, and the stress of reduced financial resources and staffing levels (Ebright, 2010). Front line nurse managers are the leadership between the executive leadership and nursing staff on patient care units. Work engagement of the FLNM plays an important role in facilitating the organization's goals and is instrumental in supporting and promoting a healthy work environment. Healthy work environments support and foster excellence in patient care and are imperative to ensure patient safety, enhance staff recruitment, and leadership engagement that supports organization goals (American Association

of Critical-care Nurses [AACN], 2005; Kramer, Maguire & Brewer, 2011). There is a need for better understanding of FLNMs' work engagement and factors that may enhance their leadership at the point of care because high turnover is disruptive to the organization's functioning.

Problem

Front line nurse managers are an integral part of the health care delivery system (Anthony, Standing, Glick, Duffy, Paschall, Sauer... & Dumpe, 2005; Duffield, Roche, Blay & Stasa, 2011; Shirey, 2010) providing coordination and supervision at the point of care. They drive the delivery of care through their staff, set quality and safety initiatives and act as conduits for reinforcing the organization's priorities. A FLNM's engagement is influenced by a variety of factors, most importantly are the factors of work stressors and perceived organizational support (Bakker, Demerouti, and Schaufeli (2005); Patrick & Laschinger, 2006; Simpson, 2009, Udod, 2012). These factors may facilitate or impede FLNM engagement.

The current health care environment is experiencing a nursing shortage with an absence of strong leadership at the front line (Balogh-Robinson, 2012; Mackoff & Triolo, 2008). The combination of the lack of succession planning, a lack of enticement into nurse manager roles and the exodus of nurse managers through disengagement and retirement (Hodes, 2006; Stichler, 2008) has created a leadership void (Wendler, Olsen-Sitki, & Prater, 2009). The loss of expertise as baby boomers age will lead to an absence of wisdom and expertise as their positions are difficult to fill (Hodes, 2006). This leadership void, impending work force shortage and disengagement and turnover intent of FLNMs may severely impact care delivery.

Consistent leadership provides focus, pertinent quality care initiatives and safe staffing goals. Safe, quality care delivery is based, in part, on the FLNM's ability to foster a healthy work environment. Transforming the work environment through strong, effective executive leadership

and supportive nursing supervision throughout the organization will assist staff nurses in responsive decision-making related to patient care delivery (Mrayyan, 2004; Shirey & Fisher, 2008). A key resource in the fight to increase the level of engagement at work may lay in the front line, immediate manager and staff nurse' relationship that is favorable and positive (Duffield, Roche, Blay & Stasa, 2010; Gormley, 2011; Kovner, Brewer, Wu, Cheng & Suzuki, 2006; Shirey, 2006, 2010). This auspicious interaction may have a direct relationship to engagement and retention of both manager and staff nurse.

The importance of engaging and retaining the FLNM is critical to acute care hospitals since the FLNMs are the guiding force for healthy work environments (AACN, 2005). "Their leadership and engagement is critical in navigating a healthcare environment that can be overwhelmed with new relationships, disappearing funding and rapidly shifting alliances" (Mathena, 2002, p.136). The FLNM may impact the quality of nurse sensitive indicators of nursing care for hospitalized patients (i.e. safety, falls) with their direct supervision of nursing personnel at the point of care (IOM, 2004; 2010). It is imperative to support front line nurse managers as they are the organizational building block to develop a positive work environment (Parsons & Stonestreet, 2003). The literature is clear that healthy work environments and staff retention is better when nursing staff feel and are supported by their nurse manager (Corporate Leadership Council, 2009; Kramer, Maguire, Schmalenberg, Brewer, Burke, Chmielewski...& Waldo, 2007; Shirey, 2006).

Nurse managers who are supported by their senior executive leadership in turn demonstrate support towards their own staff (Espinoza, et al, 2009). There is a strong correlation between staff nurse retention and the positive relationship between staff nurses and their nurse managers (Mackoff & Triolo, 2008; Patrick & Laschinger, 2005). Interpersonal relationships

with peers and managers, supervisory support and leadership have also been related to registered nurse work satisfaction and its relationship to turnover (Duffield, et al., 2011; Kovner, et al, 2006; Sherman, Edwards, Giovengo & Hilton, 2009). Conversely, inattention to the FLNM – staff relationship poses a serious obstacle to creating and sustaining a healthy work force and caring environment (AACN, 2005). Stress and intention to leave may result if senior executive leadership fails to recognize, support and acknowledge front line nurse managers for their commitment, contribution and performance to the organization, (Parsons & Stonestreet, 2003; Stamper & Johlke, 2003). This lack of support may lead to further FLNM disengagement.

Work Engagement

Work engagement occurs as a result of a match between individuals and their work setting and is evidenced by the individual's energy, involvement, and positive efficacy (Maslach & Leiter, 1997). The characteristics of these positive (“engaging”) work environments, correspondingly, include mature relationships among all members, personal responsibility for performance, knowledge and skill development, career progression, and high morale (Manion, 2009). Positive work environments occur when relationships between the organization, leadership, and employees are interdependent and dynamic, resulting in employees with greater organizational commitment and lower turnover for the organization (Kahn, 1992; Macey and Schneider, 2008; Manion, 2009; Rich, LePine Crawford, 2010). As professionals, nurse managers place a value on being able to create work conditions that maximize patient care quality, achieve positive unit outcomes and retain staff (Laschinger & Wong 2006a). Health care professionals, especially registered nurses are generally considered to be characterized by a high level of employee engagement and commitment (Loke, 2001; Mauno, Pyykko, & Hakanen,

2005; Simpson, 2009; Brady-Germain & Cummings, 2010). When work stressors interfere with the value associated with quality care delivery, work engagement is affected.

Work Stressors

Front line nurse managers experience multiple and competing work stressors such as job control, role demands, lack of support, ambiguity and inadequate resources, as they seek to define, prioritize and implement their role responsibilities. Their level of work stress “may originate from the complexity of the organizational structure, conflicting value systems, inexperience, lack of socialization into the role, and organizational change” (Ellis, 1986, p. 49). The role of the FLNM is multifaceted as they seek to fulfill the goals of the organization and the profession (Anthony, et al, 2005). They require the necessary knowledge and skill to successfully manage human and fiscal resources, a basis for their practice (Sherman, Bishop, Eggenberger & Karden, 2007). Additionally, FLNM must coordinate and execute professional development and staff education requirements, quality safety initiatives, standards of accrediting agencies and high quality patient outcomes. These responsibilities necessitate additional knowledge and competencies in general leadership and organizational theories and practice to accommodate the various job demands (Thorpe & Loo, 2003).

Job demands refer to the things that have to be done or activities to be performed, and include the physical, social or organizational aspects of the job that require sustained physical and mental effort (Demerouti, Bakker, Nachreiner & Schaufeli, 2001; Laschinger, Grau, Finegan & Wilk, 2012). Job demands also include situational factors such as role ambiguity, role conflict, stressful events, heavy workload and work pressure; including the ability to make critical and immediate decisions, with more responsibility and fewer resources (Rothmann & Joubert, 2002). These work demands present unique challenge stressors that impact job performance. For

example, job demands refer to those physical, social, or organizational aspects of the job that require sustained physical or mental effort and are therefore associated with certain physiological and psychological costs (Crawford, LePine & Rich, 2010). Perceived organization support (Rhoades & Eisenberger, 2002) and job resources (Simpson, 2009) can buffer the strain generated from job demands.

Perceived Organizational Support

Perceived organizational support assumes that both the organization and employees have an implied obligation and employees assign human-like characteristics to health care organizations based on the organization's norms, policies and work culture (Rhoades & Eisenberger, 2002). Perceived organizational support results from the general beliefs of employees that their organization values their contribution and cares about their well-being (Rhodes & Eisenberger, 2002).

In healthcare settings, managers are viewed as agents of the healthcare organization and manager-manager or manager-nurse relationships are viewed as reciprocal. Favorable supervisor support and supportive supervisor-nurse relationships can satisfy nurses' needs for esteem, affiliation, emotional support, respect and approval which in turn may lead to less nurse turnover (Armeli, Eisenberger, Fasolo & Lynch, 1998; Hayes, O'Brien-Pallas, Duffield, Shamian, Buchan, Hughes, ... & North, 2012; Rhoades & Eisenberger, 2002). An employee might register his/her contentment (or lack thereof) with their supervisor and organization by having high (or low) supervisor and organizational support perceptions.

There has been limited research between the relationship of work engagement and work stressors of the FLNM as well as perceived organization support and FLNM from senior executive leadership. Greater understanding of what influences work stressors, perceived

organizational support and work engagement on front line nurse manager's employment performance is essential if health care institutions are to retain the FLNMs. The purpose of this study is to examine the relationship of work stressors and perceived organizational support on work engagement in the FLNM.

Problem Statement

What is the relationship of work stressors and perceived organizational support to work engagement of the front line nurse manager?

Definition of Terms

Work Engagement (WE)

Work engagement is conceptually defined as a positive work related state of mind that is characterized by vigor, dedication and absorption (Bakker & Schaufeli, 2008). Work engagement occurs within the work culture or environment and therefore, provides insight for organizations to create a climate where the FLNM can be fully engaged (Lanser & Coshow, 2007). Work engagement was operationally defined using the Utrecht Work Engagement Scale (UWES) (Schaufeli & Bakker, 2004). The scale was used to characterize the work engagement of the FLNM.

Work Stressors (WS)

Work stressors is conceptually defined as job demands (challenge or hindrance stressors) that promote or hinder the accomplishment of personal goals and facilitate growth and development in the work context (Podsakoff, 2007). These work stressors may lead to a change in psychological, physiological, or behavioral response of the FLNM's engagement. Work stressors was operationally defined by the Challenge-Hindrance Stressor Scale (Cavanaugh, Boswell, Roehling & Boudreau, 2000; LePine, LePine & Jackson, 2004).

Perceived Organizational Support (POS)

Perceived organizational support is conceptually defined as the extent to which the organization values the employee's contribution, and cares about their well-being and affective commitment (Rhoades & Eisenberger, 2002). Perceived organizational support assumes that both the organization and employees have specific, informal workplace expectations (Rhoades & Eisenberger, 2002). Front line nurse managers' work engagement and relationship with senior executive leadership and staff may be influenced by POS. Operationally, POS was measured by Eisenberger's Perceived Organizational Support Survey (Eisenberger, Huntington, Hutchison & Sowa, 1986) for this study.

Age

Age is defined as chronological and was collected on the demographic sheet. Older age has been linked to increased work engagement. Schaufeli, Bakker, and Salanova (2006) re-analyzed 27 studies conducted between 1999 and 2003 and found that age is positively, but weakly, related to engagement. As well, Simpson (2009) found higher levels of work engagement among older nurses.

Delimitations

The population for this study was defined as front line nurse managers with one or more years of supervisory experience as front line nurse manager who are employed in acute care hospitals. FLNMs have as their primary responsibility a clinical unit as an inpatient nurse manager, supervisor, administrator or clinical nurse leader with five or more full time equivalents (FTEs) nurses on staff and 24 hour unit responsibility within an acute care environment (acute care hospital or academic medical center). The definition of FTE is the

number of working hours that represents one full-time employee during a fixed time period, such as a forty hour work week (Finkler & McHugh, 2007).

Conceptual Framework

The conceptual framework for this study was based on William A. Kahn's (1990) engagement theory. Kahn originally described engagement as the harnessing of an employee's full self in terms of physical, cognitive and emotional energies to work role performance. According to Kahn (1990) people exhibit engagement when they become physically involved in tasks, whether alone or with others, are cognitively vigilant, focused and attentive and are emotionally connected to their work and to others in service of their work (Kahn, 1990). Employee engagement contains a rational or intellectual aspect that captures the extent to which an employee recognizes or commits to the organization's mission.

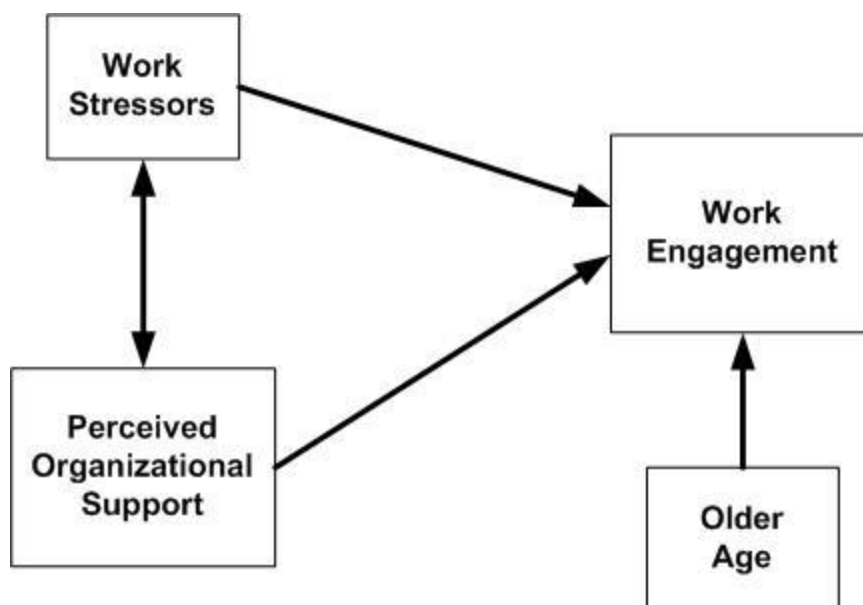
Work engagement refers to a positive work-related state of mind characterized by feelings of vigor, dedication, and absorption (Schaufeli & Bakker, 2004). Engaged employees are dedicated to their work, and immersed and persistent in work activities (Simpson, 2009; Schaufeli & Bakker, 2004). Work engagement occurs within the environment and provides insight for what organizations do to foster a climate where employees are fully engaged (Lanser & Coshow, 2007). Higher levels of perceived organizational support encourage and promote greater fulfillment to achieve organizational goals (Laschinger, Purdy, Cho & Almost, 2006). Job performance may be facilitated or hindered by job demands and resources. The Job Demands-Resources model enhances the understanding of work engagement.

Work Engagement and the Job Demands–Resources Model

The Job Demands–Resources (JD-R) model specifies how job strain and work engagement may be produced by two specific sets of working conditions that can be found in

every organizational context: job demands and job resources (Schaufeli, Bakker & Van Rhenen, 2009). For example, job demands refer to those physical, social, or organizational aspects that require sustained physical or mental effort in a job and are therefore associated with certain physiological and psychological costs (Bakker, Schaufeli, Leiter, & Taris, 2008). Job resources refer to those physical, psychological, social, or organizational aspects of the job that may do any of the following: (a) achieve work goals; (b) reduce job demands and the associated physiological and psychological costs; (c) stimulate personal growth and development; and (d) social support provided from colleagues, family, and peer groups (Podsakoff, LePine & LePine, 2007). When the external environment lacks these resources, individuals may find it more difficult to manage the negative demands of their work environment (i.e. high workload), and lead to poor performance goals (Schaufeli, et al, 2009). When organizations do not provide sufficient support resources, employees will experience withdrawal and decreased commitment (Bakker, Demerouti, & Schaufeli, 2003; Demerouti et al., 2001). This lack of resources causing withdrawal may heighten work stressors.

Figure 1.1 Proposed Relationships of Study Variables



In their perceived leadership responsibility, work stressors of FLNMs are greatly affected by insufficient support and resources. For example, Forbes (1979) suggested that front line managers are under stress because they have minimum control and influence over resources. They must satisfy and balance various layers of hospital hierarchy including the demands of subordinates and supervisors, who sometimes have unrealistic expectations about their job responsibilities and performance.

Work stressors identified by FLNMs include such items as workload, role overload, role conflict, ambiguity and lack of support (Chang, Hancock, Johnson & Jackson, 2005). “Work stressors may originate from the complexity of the organizational structure, conflicting value systems, inexperience, lack of socialization into the role, and organizational change” (Ellis, 1986, p. 49). Work-related stressors can be partitioned into two categories: (a) challenge stressors and (b) hindrance stressors (Cavanaugh, et al, 2000). Challenge stressors tend to be appraised as stressful demands that have the potential to promote mastery, personal growth or future gains (Crawford, LePine & Rich, 2010). Hindrance stressors are stimuli that encompass potentially stressful demands typically perceived as beyond the control of the employee; they decrease personal growth (Crawford, et al., 2010). These stressors may be seen as hindrance stressors for the FLNM. The burden of these work stressors may lead to an unsupportive work environment that has been noted to increase turnover in staff nurses and nurse managers (Ulrich, Lavandero, Woods, Leggett & Friedman, 2009). The Job Demands-Resources (JD-R) model (Bakker & Demerouti, 2007; Demerouti et al., 2001) was used to examine how work stressors and perceived organizational support impact the work engagement of the FLNM.

Perceived organizational support is grounded in exchange ideology that assumes that both the organization and employees have specific, informal workplace expectations

(Eisenberger, et al, 1986; Rhoades & Eisenberger, 2002). Employees assign humanlike characteristics to healthcare organizations based on the organization's norms, policies and work culture (Rhoades & Eisenberger, 2002). Perceived organizational support (POS) results from the general beliefs that employees have about organization values and their contribution and cares about their wellbeing (Rhodes, et al., 2002).

When organizations seek to develop, engage and empower front line nurse managers they experience job satisfaction and commitment (Sherman, Edwards, Giovengo & Hilton, 2009). The front line nurse manager who positively influences the work environment and fosters staff organizational commitment stimulates unit performance and enhances the organization's competitive advantage (McGuire & Kennerly, 2006). Without a consistent commitment to the leadership development for nurse managers and frontline staff, "the future of our healthcare organizations will be at risk" (IOM, 2010; O'Neil, Morjikian & Cherner, 2008, p. 178).

Research Question

What is the relationship of work stressors (WS) and perceived organizational support (POS) to work engagement of the front line nurse manager (FLNM)?

Hypotheses

Hypothesis 1: Front line nurse managers with increased work stressors will have lower work engagement.

Hypothesis 2: Front line nurse managers with increased perceived organizational support will have higher work engagement.

Hypothesis 3: Perceived organizational support will moderate the relationship between work stressors and work engagement. Specifically, higher perceived organizational support buffers the effect of work stressors on work engagement.

Hypothesis 4: Older (chronological age) front line nurse managers will report higher work engagement.

Need for the Study

Front line nurse managers are caught in the crossfire between multiple work stressors, layers of management and a variety of personnel issues (Parsons & Stonestreet, 2003). Effective nursing leadership is increasingly linked to quality patient safety goals and outcomes (IHI, 2010; IOM, 2004; 2010). Nursing leadership is a key driver for improving the work environments of staff nurses, as well as a critical driver in the ability to recruit and retain nurses at all levels. The ability to successfully foster engagement among front line nurse managers will enhance the work environment, provide a culture of excellence and sustain effective nurse leader succession planning (Kleinman, 2004; Mackoff & Triolo, 2008).

There is no literature examining the relationship of work stressors and perceived organizational support to work engagement of the front line nurse manager. Work engagement literature has recently focused on the staff nurse work effectiveness (Laschinger, Wilk, Cho, & Greco, 2009), nurse behaviors (Salanova et al., 2011; Wong et al., 2010), patient outcomes (Laschinger, et al., 2009; Wong et al., 2010) and staff nurse engagement influenced by nurse managers (Cathcart et al., 2004; Salanova et al., 2011). Since front line nurse managers are essential for provision of quality healthcare, this research provides a needed understanding of FLNM's work engagement and factors to enhance their work experience.

According to the Health Resources and Service Administration (HRSA), a division of the United States Department of Health and Human services (DHHS, 2004), 8.4% of the 2.7 million U.S. registered nurses (RNs) are employed as a nurse manager or in another supervisory role (Shirey, 2006). The National Sample Survey Registered Nurses (NSSRN) 2008 reveals that

12.5% of registered nurses are employed in management or administrative roles. However, there was a decrease seen in FLNM employment from 6.2 % [2004] to 4.1% [2008] (NSSRN, 2008). Recently, HRSA indicated it will no longer conduct the NSSRN but instead use the U.S. Census Bureau's Current Population and American Communities surveys. Both these surveys collect workforce information (employment and earnings) but do not contain descriptive data such as type of registered nurse (i.e. staff, nurse manager) (Auerbach, Staiger, Muench, & Buerhaus 2012).

Retention statistics released by the AONE (2002) reveal vacancy rates for nurse managers as high as 8.3% in urban hospitals with an average vacancy rate of 6.3% (Andrews & Dziegielewski, 2005). At present, there are no national data on nurse manager vacancy rates (pc. Rose Sherman 3/14/11). Without consistent attention and commitment to leadership development for nurse managers and frontline staff, "the future of our healthcare organizations will be at risk" related to their critical decisions made each day on patient care, safety and financial costs (IOM, 2010; O'Neil, Morjikian & Cherner, 2008, p. 178). The nurse manager, responsible for multiple units is severely challenged to maintain the needed blend and balance of clinical and business management (Hall, Doran & Pink, 2008; McCutcheon, Doran, Evans, Hall, & Pringle, 2009; Parson & Stonestreet, 2003). There is an integral relationship between nurse manager performance and effectiveness of decision making, controls and processes throughout the organization (McLarty & McCartney, 2009).

Today's nurse leaders are often selected for their roles because of their clinical and technical proficiency and not their management ability or competence. In many organizations, very little attention is being paid to succession planning and the development of emerging nurse leaders at the point of care (Balogh-Robinson, 2012; Stichler, 2008). Front line nurse manager

turnover, vacancy and retirement may be extremely costly not only in terms of finances and succession but it may lead to an unstable and unhealthy organization.

Along with forecasts of staff nurse shortages, hospital restructuring in the 1990's decreased nursing management positions. Those FLNMs who remained had significantly expanded responsibilities and a larger span of control (Cathcart, et al., 2004; Patterson, 2009; Sherman, et al., 2007). The decreased number of existing nurse managers along with the shorter tenure of current FLNMs has created a leadership vacuum.

The proposed study of FLNMs' work engagement has ramifications for both the individual manager and health care organization as it may impact the quality of patient care delivery, the organization's fiscal stability and the work environment. The importance of retaining a qualified nursing management workforce is essential. Front line nurse manager retention and leadership are the organizational building blocks to develop positive work environments with the ability to retain and recruit staff nurses within this complex environment. The lack of research on the impact of work stressors, perceived organizational support and engagement of the front line nurse manager underscores the need to assess and evaluate the impact these variables have on the FLNM's retention and the nursing workforce environment. This study will explore the relationship of work stressors (WS) and perceived organizational support (POS) to work engagement of the front line nurse manager (FLNM).

Summary

Chapter 1 discusses the relationship of work engagement and work stressors of the front line nurse manager and the front line nurse manager's perceived organization support from executive management and the workforce environment. Definitions of variables and delimitations for this study are defined and discussed. The conceptual framework is explained.

Limited studies have explored the role that work stressors and perceived organizational support play in front line nurse manager work engagement. Chapter 2 addresses a review of the literature of relevant theory and study variables. This study could provide additional scholarly knowledge about the relationships among these variables as well as provide new insight into the work engagement of the FLNM and their instrumental role in health care delivery at the point of care.

Chapter II

Literature Review

Work engagement, work stressors, perceived organizational support and age are the four key concepts within this dissertation. This chapter reviews and summarizes the literature and relevant research related to those concepts. An extensive literature review was conducted to identify studies on work engagement, work stressors and perceived organizational support. The review suggests that organizational support and work stressors may influence front line nurse managers (FLNM's) work engagement, and that the workplace environment may contribute to the disengagement and turnover of FLNM's.

The literature review process involved a search of computerized databases from January 1990 to December 2012. Databases utilized in the search included the following: ABI/Inform, EBSCO, ProQuest, PsycInfo, JSTOR, Google Scholar, Social Sciences Citation Index, ERIC and CINAHL. The search included the terms *job, work, employee, perceived organizational support, stressors, leadership, and work environment* with the keyword *engagement*. A search of major journals as well as the reference lists of pertinent articles and dissertations on work engagement was completed. Engagement within the employee work role has been investigated within various industries and employee types; however, research focused specifically on the nursing workforce and on the FLNM in particular, has been minimal.

Work Engagement

A significant amount of current research on work engagement has been from the scientific management and organizational behavior literature outside the United States in service and business populations. Since there is limited literature on work engagement as related to FLNMs, other service and professions were used as surrogate populations for this review. This

review examined engagement studies with service and professional workers, including staff nurses and nurse managers. Several theories and conceptual models have linked the degree of work stressors, perceived organizational support and job demands and resources as antecedents and consequences for work engagement (Rich, 2010; Schaufeli, Bakker, & Salanova, 2006; Vance, 2006). Understanding FLNM work engagement may lead to enhanced leadership and desired organizational outcomes.

William A. Kahn (1990) first conceptualized work engagement as the harnessing of organizational members to their work roles. Work engagement has since been defined more completely to encompass situations in which employees feel positive emotions toward their work, find their work to be personally meaningful, consider their workload to be manageable, and have hope about the future of their work and are motivated to actively allocate personal resources with a work role (Kahn, 1990, 2010; Macey & Schneider, 2008; Rich et al., 2010).

Kahn (1990) proposed that *personal engagement* represents a state in which employees “bring in” their personal selves during work role performances, investing personal energy and experiencing an emotional connection with their work. In this view, work roles represent opportunities for individuals to apply themselves behaviorally, energetically, and expressively in a holistic and simultaneous fashion (Kahn, 1992; Rich et al., 2010).

More recently, a definition and operationalization of work engagement has been offered by Schaufeli, Salanova, González-Romá, & Bakker (2002, 2004). Their conceptualization of work engagement refers to a positive work-related state of mind characterized by feelings of vigor, dedication and absorption and includes persistence while working, dedication to work and immersion in work activities (Schaufeli & Bakker, 2004; Simpson, 2009; Vinje & Mittlemark, 2008). These aspects each have characteristics of their own that are seen in the management and

nursing work place. *Vigor* refers to high levels of energy and mental resilience, the willingness to invest effort, and persistence while working. *Dedication* is characterized by strong involvement in one's work along with experiencing feelings of significance, enthusiasm, inspiration, pride and challenge (Simpson, 2009). *Absorption* refers to full concentration, immersion and engrossment in one's work. Schaufeli defines engagement as being independent from job resources and positive organizational outcomes (Bakker & Schaufeli, 2008). Work engagement conceptualization will be discussed and its relations to study variables.

Accordingly, the Utrecht Work Engagement Scale, a self-reported questionnaire developed by Schaufeli and Bakker (2003), includes the three aspects of work engagement: vigor, dedication and absorption. Although there is limited nursing research utilizing Schaufeli and Bakker's (2004) conceptualization of work engagement, it continues to evolve within psychology and business literature and increased use in nursing research has been suggested (Simpson, 2009). A broader perspective of the study of work engagement will be discussed including nursing and nursing manager studies looking at work engagement. There is need for better understanding of FLNMs' work engagement and factors that enhance their work experience, recruitment and retention and positive patient outcomes. Effective nursing leadership and engagement is increasingly linked to quality patient safety goals and outcomes (Institute for Healthcare Improvement [IHI], 2010; Institute of Medicine [IOM], 2004; Laschinger & Wong, 2006).

A study by Jenaro, Flores & Organz, (2010) on work engagement used a descriptive, correlational approach utilizing a convenience sample of 412 nurses (registered nurses [n=256], nurse managers [n=8] and certified nursing assistants [n=148]). Measures utilized were the Work Engagement Survey, the General Health Questionnaire, and ad hoc demographics, job features

and stressors survey. Nurse managers scored significantly higher on several job stressors compared with other groups. Concerning engagement, 33% of the nurses experienced high dedication, 20% experienced high vigor and 37% experienced high absorption. Predictors of vigor and dedication were satisfaction with job position, higher quality of working life, lower social dysfunction and lower stress associated with patient care. The authors suggest strategies to promote work engagement should include organizational strategies to reduce the stress associated with patients care, and initiatives to improve social and communication skills. These strategies are also necessary for nurses to experience vigor and dedication. There were no effects noted for length of service or professional category.

Limitations of the study include: (a) cross-sectional design, (b) participants belonged to a single hospital complex, (c) subjects in various positions and (d) information was generated from self-reports, thus reducing generalizability. Though, these findings could be utilized to promote retention in the nursing profession by implementing strategies to improve organizational and individual variables such as working life and satisfaction with job position.

In terms of Schaufeli and Bakker's conceptualization of engagement, Freaney & Tiernan's (2009) qualitative findings seem to relate only partially, with issues of vigor and dedication emerging in their research on barriers to engagement. However, absorption, the third component may not work as well with nurses. Absorption is a state of immersion in work where employees may have difficulty detaching themselves from work at the end of the day (Freaney & Tiernan, 2009). Some nurses in this study's focus discussed leaving certain areas of nursing because they couldn't detach themselves from their work. In summary, nurse engagement appears to center on issues of energy (vigor), intrinsic reward (dedication) and having a

connection with others (social support) at work. Though a small study (n=20), its results appear to support the work of Jenaro, Flores & Organz, (2010).

In the study of work engagement, its difference from burnout has been substantiated in several studies (Gonzalez-Roma, et al., 2006; Schaufeli, Martinez, Marquez, Salanavo & Bakker, 2002; Schaufeli, Salanova, et al., 2002). Work engagement distinctness from job involvement and organizational commitment has also been supported (Hallberg & Schaufeli, 2006). In addition, the role of work engagement within the work context and its relationship to outcomes was found (Koyuncu, Burke & Fiksenbaum, 2006). Engagement, particularly dedication, predicted various work outcomes (e.g. job satisfaction, intent to quit) while vigor predicted various psychological well-being outcomes in Turkish women managers and professionals. Work engagement has also been linked to organizational resources (job control & supervisory support) and employee performance (Bakker & Demerouti, 2008; Salanova, Agut and Peiro 2005; Salanova, Lorente, Chambel & Martinez, 2011). Transformational leadership was directly related to increased job performance.

Several studies have used the Jobs Demands –Resources (JD –R) model as a framework for the study of antecedents and consequences of work engagement and burnout, with findings supporting the importance of job resources and the link between demands and control and burnout and engagement, respectively (Bakker et al., 2005; Demerouti, Bakker, Janssen & Schaufeli, 2001; Hakanen et al., 2006, Mauno, Kinnunen & Ruokolainen, 2007). In this model, Schaufeli and Bakker (2004) assumed that job resources strengthened work engagement and resulted in personal outcomes. Bakker and Demerouti (2003) identified two characteristics of the work environment that contribute to work engagement. These characteristics are job demands and job resources.

Bakker & Demerouti's Job Demands–Resources (JD-R) model specifies how job strain (challenge and hindrance stressors) and work engagement may be produced by two specific sets of working conditions that can be found in every organizational context: job demands and job resources. These can be broken into organizational and social resources (Schaufeli, Bakker, & Van Rhenen, 2009). Organizational resources include job control, potential for qualification, participation in decision making, and task variety. Social resources refer to support from colleagues, family and peer groups. In a work environment that lacks job resources, individuals have greater difficulty coping with the negative influences of environmental demands, such as high workload, and ultimately reaching their goals (Schaufeli, Bakker, & Van Rhenen, 2009). The end result can be withdrawal and decreased commitment to the job or disengagement (Bakker, Demerouti, & Schaufeli, 2003; Demerouti et al., 2001). Nurse manager job demands (challenge and hindrance stressors) include adverse work conditions role, overload and ambiguity, time pressures and large spans of control (Warshawsky, Havens, Knafl, 2012). Job resources found to increase work engagement for nurse managers include autonomy, performance feedback, supportive colleagues and supervisory coaching (Laschinger, 2006; Warshawsky, et al., 2012).

Work Engagement & Job Demands/Resources

Several studies have shown a positive relationship between job resources and work engagement. For example, Schaufeli and Bakker (2004) found evidence for a positive relationship between three job resources (performance feedback, social support, and supervisory coaching) and work engagement (vigor, dedication, and absorption) among four samples of Dutch employees (health & safety, homecare, insurance and pension fund). This relationship was replicated in a sample of over 2000 Finnish teachers (Hakanen, Bakker, & Schaufeli, 2006),

and found in dentists (71% women) (Hakanen, Bakker, & Demerouti, 2005) and female managers (Koyuncu, Burke, and Fiksenbaum (2006). Results showed that job control, information, supervisory support, innovative climate and social climate were all related positively to work engagement. In addition, six areas of work life–workload, control, reward, community, fairness, and values (Leiter & Maslach, 2004; Maslach & Leiter, 1997), control, personal initiative (Hakanen, Bakker, & Demerouti, 2005), reward and value were significant predictors of all three engagement measures (vigor, dedication and absorption) (Bakker, Schaufeli, Leiter, & Taris, 2008).

Mauno, Kinnunen, and Ruokolainen (2007) utilized a 2-year longitudinal design to investigate work engagement and its antecedents among randomly chosen Finnish health care personnel (professional and non-professional; 88% women; 64% nurses). Job resources predicted work engagement better than job demands (explained variance – T1 (Time 1): 4–7% vs. T2 (Time 2): 4–10%). Job control and organization-based self-esteem (the degree to which members of an organization believe that they can satisfy their needs by participating in roles within the organization) proved to be the direct predictors of the three dimensions of work engagement, after controlling for T1 scores on the dimensions of engagement measured by the Utrecht Work Engagement Scale (UWES). The dimensions of work engagement correlated moderately well, ranging from 0.62 to 0.74 between T1 ($n = 735$) and T2 ($n = 409$). Findings supported no time-related changes in the experience of work engagement during the follow-up period. Thus, an employee who reported high work engagement at Time 1 (in 2003) also reported high engagement two years later at Time 2 (in 2005). Separate paired *t*-tests for each work engagement dimension at both measurement points (T1 and T2) revealed that the differences were also statistically significant. Participants reported more dedication than vigor,

T1: $t(406) = -17.17, p = .000$, T2: $t(409) = -6.58, p = .000$, and finally more vigor than absorption, T1: $t(406) = -13.98, p = .000$, T2: $t(407) = -14.09, p = .000$, at both time points.

The authors concluded that job control had the most consistent, positive association with the different dimensions of work engagement (high levels of vigor and dedication) and recommended that to increase employee's work engagement employers should provide a sufficient level of employee job control or autonomy. A limitation of this study was that participants were from only one Finnish hospital district and mainly female employees thereby limiting the ability to generalize findings. Similarly, Schaufeli, Bakker, and Van Rhenen (2008) found that changes in job resources were predictive of engagement over a 1-year time period. Specifically, the results showed that increases in social support, autonomy, opportunities to learn and to develop, and performance feedback were positive predictors of work engagement at Time 2 (after 1 year) after controlling for baseline engagement using a sample of 210 telecommunication managers and executives.

Employee Work Engagement

Employee work engagement contains rational or intellectual aspects that capture the extent to which an employee recognizes or commits to the organization's mission and objectives (Kahn, 1992; Macey & Schneider, 2008; Rich et al., 2010). Clarity of expectations, feelings of contribution to the organization, sense of belonging, and opportunities to progress and grow are required for engagement to occur within the workplace (Harter, Schmidt, Killham, Agrawal, 2009).

Mackoff and Triolo (2008) ran a qualitative investigation of nurse manager engagement and retention in six hospitals across the United States. The researchers gathered data from a national convenience sample of 30 long term and high performing nurse managers with 5 or

more years of experience, using in-depth interviews and a questionnaire to describe the dimensions and applications of individual engagement. The analysis identified ten signature behaviors linking nurse manager success and retention to engagement. The research also suggests that nurse executives concerned with critical nurse shortages should begin by seeking to promote engagement and not just retain their nurse managers. The researcher suggests nurse executives who foster an FLNM leadership culture in their organizations tend to retain engaged FLNMs (Mackoff & Triolo, 2008). The study also suggested the need for the engaged nurse manager to maintain “line of sight,” or direct connection, between leadership and patient care, managerial duties, and the organization’s mission (Mackoff & Triolo, 2008).

Although Machoff & Triolo described their findings as a model of nurse engagement, their findings are similarly related to job satisfaction and organizational commitment attributes that may influence nurse manager engagement and longevity. Simpson’s (2009) nursing review of the research on work engagement concluded that there is an essential need to differentiate the antecedents of engagement from the attributes because these have been used interchangeably (Bargagliotti, 2012). Conceptual confusion has prompted four distinct lines of research: personal, burnout, work and employee engagement (Simpson, 2009).

A number of staff nurse engagement studies looked at the concept of empowerment and its relationship to employee engagement. Empowerment is defined as access to opportunity, information, support, resources and formal and informal power within the work environment (Laschinger, Purdy & Almost, 2007). These are seen as empowerment structures. A common finding among these studies (Greco, Laschinger & Wong, 2006; Laschinger & Finegan, 2005; Regan & Rodriguez, 2011) was that when staff nurses felt empowered to accomplish their work in meaningful ways, they were more likely to experience a good fit between their expectations

and their working conditions. Reasonable workloads, control over their work, establishing good working relationships, being treated fairly, being rewarded for their contributions, and having values congruent with the organization's values all resulted in a more engaged workforce (Simpson, 2009; Laschinger & Finegan, 2005). Access to empowerment structures is important to nurse engagement and their feelings when there is a good fit between their own values and those of the organization.

Empowerment, control over their work and establishing good working relationships, have been shown to be important for staff nurse retention (Laschinger & Finegan, 2005). In general, researchers found that structural empowerment (access to information, support, resources, learning opportunities, formal power and informal power) positively influenced areas of staff nurse work-life quality (Faulkner & Laschinger, 2008; Laschinger, Wong, & Greco, 2006). In addition, research suggests that when nurse managers use leadership behaviors, such as participatory management practices that foster employee autonomy and meaningfulness of their work, their employees exhibit positive work engagement (Laschinger & Finegan, 2005). Also, nurse managers who felt supported by their organizations reciprocated this support with their staff (Espinoza et al., 2009).

In a study of medical surgical nurses, Simpson (2009) found significant inverse correlations between employee engagement and turnover intentions and a positive correlation with job satisfaction. In addition, hierarchical multiple regression revealed 46%, ($F(3,160) = 47.546, p < .001$), of the variability in work engagement was accounted for by registered nurses' satisfaction with their professional status, interaction at work and intention to quit. Additionally, the job satisfaction components of professional status and interaction were shown to significantly moderate the relationship between thinking of quitting and work engagement ($t = 1.96, p < .05$).

Also, Harter, Schmidt & Hayes (2002) demonstrated that employee engagement is negatively associated with turnover and positively associated with job satisfaction.

Work Engagement & Performance

In their survey among Dutch employees from a wide range of occupations, Schaufeli, Taris, and Bakker (2006) found that work engagement is related positively to role performance. Because engaged employees experience a high level of connectivity with their work tasks, they strive toward task-related goals that are intertwined with their in-role context, leading to high levels of job performance (Macey & Schneider, 2008). Another possibility is that engaged employees consider all aspects of work to be part of their domain, and thus, they step outside of their roles to work toward goals held by coworkers and the organization (Christian, Garza, & Slaughter, 2011). In terms of performance, this means that employees, when engaged, will be more likely to create a social context that is conducive to teamwork, helping, voice (respected opinion), and other important discretionary behaviors that may lead to organizational effectiveness (Podsakoff, Whiting, Podsakoff, & Blume, 2009).

Summary of Work Engagement

Few studies have measured the antecedents and consequences of work engagement for nurse managers. More studies have tested the effects of work engagement on measures of personal well-being in managers than on job and organizational performance outcomes in primarily non-nurse populations. The inconsistency in associations between work engagement and two similar measures of job demands suggests that other variables may play a role in a person's engagement.

Work Stressors

Work stressors originate from the complexity of the organizational structure, conflicting value systems, inexperience, lack of socialization into the role, and organizational change (Ebright, 2010; Ellis, 1986; Kramer et al., 2007; Shirey, 2006). These stressors combine to create undue strain on the employee. As a result of the conflicting findings for the relationship between stress and outcomes, and the emergence of the possibility that some stressors may result in beneficial consequences, research in the area of job stress has begun to examine how the type of stressor may differentially affect performance, thus engagement (Cavanaugh et al., 2000; Christian, et al., 2011; LePine et al., 2004; Rich et al., 2010; Shirey, 2006; Wallace, Edwards, Arnold, Frazier, & Finch, 2009).

Cavanaugh et al. (2000) partitioned work related stressors into two categories called challenge and hindrance stressors. Challenge stressors producing job demands or work circumstances may lead to increased job satisfaction and other positive outcomes. Hindrance stressors may decrease job satisfaction and increase other negative outcomes. The type of stressor depends largely on the individual's perception of the extent to which the stressful circumstances involve a net gain or loss of the individual's resources. Cavanaugh et al. (2000) and LePine et al. (2004) suggest that time pressures, high levels of responsibility or an increase in performance seen as challenge stressors lead to an increase in motivation. This increase in motivation leads to an increase in performance that was strong enough to overcome the negative hindrance stressors. Although job demands are pressure-laden, they were viewed as rewarding work experiences that were well worth the discomfort (Boswell, Olsen-Buchanan & LePine, 2004).

Challenge–Hindrane Stressor Relationship

Researchers have found that the stressors workers tend to view as potentially promoting their personal growth and achievement (i.e. challenge stressors) should be distinguished from stressors viewed as potentially constraining their personal development and work related accomplishments (i.e. hindrance stressors). Challenge and hindrance stressors were differentially associated with job satisfaction and loyalty (Boswell et al., 2004; Cavanaugh et al., 2000, Olson-Buchanan, & LePine, 2004), cognitions and intent to leave (Boswell et al., 2004) and behaviors such as job search and task performance (LePine, Podsakoff, & LePine, 2005; Wallace et al., 2009), job satisfaction and self-efficacy (Webster, Beehr, & Christiansen, 2010) and turnover intention and withdrawal behaviors (Podsakoff, LePine, & LePine, 2007). Work stressors are conceptually defined as job demands (challenge or hindrance stressors) that promote or hinder the accomplishment of personal goals and facilitate growth and development in the work context (Podsakoff, 2007). These work stressors can lead to a change in the FLNM's engagement. Using a sample of over 1800 upper-level managers, Cavanaugh and her colleagues (2000) reported that stress from challenge-related job demands (e.g., workload, time pressure, and responsibility) was positively related to job satisfaction and negatively related to job search. Conversely, they reported that stress from hindrance-related job demands (e.g., role ambiguity, organizational politics, red tape, and job insecurity) was negatively related to job satisfaction, and positively related to job search and voluntary turnover.

Building on the work of Cavanaugh et al. (2000), Boswell and colleagues conducted two additional studies (Bingham et al., 2005; Boswell et al., 2004) using this challenge and hindrances stressors framework. In the their study, Boswell et al. (2004) attempted to expand the criterion-related validity of Cavanaugh et al.'s (2000) challenge and hindrance stressor measures

by examining additional outcome variables in a sample of 481 university employees (administrative, clerical, computer support and maintenance positions). These authors reported that: (a) based on factor analysis, challenge and hindrance stressors were distinct from each other; (b) challenge stressors had a positive relationship with employee loyalty and negative relationships with job withdrawal, job search, and intentions to quit; and (c) hindrance stressors had a negative relationship to employee loyalty, and a positive relationship with job search and intention to quit. Individuals perceive and react to different job demands in unique ways, and learning from experience may require a level of support that may not have existed in their previous job positions or organizations.

The existing research also successfully illustrates the relationships that exist between stress perceptions and reactions (i.e., the effect and orientations of both challenge stressors and hindrance stressors). Shirey, McDaniel, Ebright, Fisher, and Doebbeling (2010) interviewed 21 nurse managers and analyzed the data using a qualitative descriptive method. They found that enhancing nurse manager coping behaviors led to increased management of their work stressors through supportive relationships. Organizational politics and interpersonal conflict were found to increase feelings of stress, and supportive relationships alleviated such feelings. Facilitating nurse manager decision making were strategies consistent with engaging, decreasing stress and retaining nurse managers.

Research by Podsakoff, LePine, and LePine (2007) highlighted that hindrance stressors had negative relationships with job satisfaction and organizational commitment and positive relationships with turnover intentions, actual turnover, and withdrawal behaviors. However, Podsakoff et al., (2007), showed that challenge stressors, on the other hand, demonstrated a

positive relationships with job satisfaction and organizational commitment and negative relationships with turnover intentions and turnover.

Sundin, Hochwalder, and Bildt (2008) developed and psychometrically evaluated a new job demand scale. The authors used items reflecting demographics, job demand, job control and social support in a sample of $n = 795$ registered nurses and $n = 527$ assistant nurses in Sweden to determine specific job indices within health care work. The four component solution explained 69.6% and 72.1% of the variance for registered nurses and assistant nurses, respectively in regards to professional worries. The new job demand indices showed the strongest correlation with psychological demand dimension (e.g., “Do you have to work very fast?” and “Does your work often involve conflicting demands?”) Such knowledge could help managers and hospital administrators identify which job demands might vary, and allow them to direct, design and implement work place interventions for a specific occupation (Sunden et al, 2008) and promote work engagement.

Additional support for the validity of the Challenge-Hindrane Stressor Scale measures was provided in two meta-analyses by LePine et al., (2005) and Podsakoff et al., (2007). Challenge stressors were generally found to have positive relationships with employee motivation (a component of work engagement), job satisfaction, organizational commitment, intentions to leave, job performance, turnover and withdrawal behaviors; whereas hindrance stressors generally had negative relationships with these criteria. Work engagement is an active and energetic psychological state which fosters the mobilization of resources even in challenging conditions.

Relationship of Work Stressors to Work Engagement

Research which examines the relationship between FLNM's work engagement and work stressors (challenge or hindrance) is limited. The core component for the motivational process of work engagement described in the JD-R model has been positively related to job resources, such as control over work and social support (Bakker, et al., 2003; Hakanen, et al., 2006). Wong, Laschinger & Cummings (2010) found that control was an important predictor of staff nurse work engagement both directly and indirectly through perceived fit between personal and organizational values. The type of work stressor depends largely on the individual's perception of the extent to which the stressful circumstances involve a net gain or loss of the individual's resources. Depending on work (challenge-hindrance) stressors seen as job demands or resources may impact the FLNM engagement.

Perceived Organizational Support

Work engagement is highly influenced by the social contexts and leadership of the organization. Supportive supervisory and peer relationships that arise from this social context have been found to build work engagement (Halbesleben, Bowler, Bolino & Turnley, 2010; Leiter & Bakker, 2010). Perceived organizational support (POS) results from the general beliefs of employees that their organization values their contribution and cares about their well-being (Rhoades & Eisenberger, 2002). In healthcare settings, managers are viewed as agents of the healthcare organization and manager-manager or manager-nurse relationships are viewed as reciprocal. Favorable supervisor support and supportive supervisor-nurse relationships can satisfy nurses' needs for esteem, affiliation, emotional support, respect and approval. This in turn may lead to less nurse turnover (Armeli, Eisenberger, Fasolo, & Lynch, 1998; Rhoades & Eisenberger, 2002).

Rhoades et al., (2002) studied 1,107 employees from various state organizations and found a positive relationship between employees' perceptions of organizational support and their perceptions of their supervisors as supportive. Higher POS was linked to an increased willingness to repay supervisors and the organization with increased work effort and loyalty or dedication (Armeli, Eisenberger, Fasolo, & Lynch, 1998). Meta-analytic evidence of studies that used the inclusion criteria of antecedents or consequences of perceived organizational support has shown that POS is related to job satisfaction ($\rho = .62$), job involvement ($\rho = .39$), in-role performance ($\rho = .18$) and withdrawal behavior ($\rho = -.34$) (Rhoades & Eisenberger, 2002). Overall, identification with the support provider influences the extent to which supervisors support play a positive role in the stressor-adjustment relationship.

According to Kahn (1990), psychological safety is the employee's "sense of being able to show and employ one's self without fear of negative consequences to self-image, status, or career" (Kahn, 1990, p. 708). Kahn observed that a supportive management environment fostered caring and trusting relationships, and provided employees with the psychological safety or trust (Wong et al., 2010) necessary to engage in role (work) activities. Whereas, in situations characterized by lower levels of supportive management, individuals felt less psychologically safe and limited their role (work) engagement (Kahn, 1990, p. 708). Subsequent research confirmed this positive relationship between psychological safety, engagement (May, Richard & Harter, 2004; Rich, 2010), perceived organizational support (Kinnunen, Feldt & Makikangas, 2008; Rothman & Joubert, 2007) and work engagement. As an evaluative attitude of the support the organization provides to employees, POS is theoretically linked to the employee's perceptions of psychological safety, an antecedent of job engagement (Kahn, 1990).

Two studies explored the quality of nurse managers' relationships with their directors and the effects of these relationships on nurse manager satisfaction. The first was a qualitative study of 28 nurse managers with at least 2 years of experience (Parsons & Stonestreet, 2003). These managers reported that their directors were readily available to guide them, provide clear expectations and feedback. The second study (Laschinger et al., 2007) examined the effects of the quality of the interpersonal relationships between 40 nurse middle managers and directors (101 first-line managers) employed in Canadian hospitals. Quantitative findings suggested that the quality of nurse managers' relationships with their directors, measured as *leader-member exchange*, indirectly influenced nurse manager job satisfaction. Structural and psychological empowerment mediated the relationship between interpersonal relationships and job satisfaction. A limitation of this study was that data analyzed using a Canadian population may make it difficult to generalize findings to this country since healthcare delivery is different. Though not about work engagement both studies showed that identification with the support provider (administrator) influences the extent to which supervisor support plays a positive role in the relationship.

Age and Engagement

Schaufeli, Bakker, and Salanova (2006) re-analyzed 27 studies conducted between 1999 and 2003. They found that age is positively, but weakly, related to engagement. The engagement levels of eight occupational groups: social work, blue-collar, nursing, hospital managers, white-collar (profit & non-profit), teaching, police, and management were compared. The results suggest that workers in the health care fields have the lowest scores of vigor and absorption. However, since not all occupational groups were represented in each study, the generalization of these results is limited.

Conceptual Framework

Work engagement occurs as a result of a match between individuals and their work setting and is evidenced by the individual's energy, involvement, and persistence of effort (Bakker, et al, 2007, Maslach & Leiter, 1997; Schaufeli, et al, 2004). The characteristics of these positive ("engaging") work environments, correspondingly, include mature relationships among all members, personal responsibility for performance, knowledge and skill development, career progression, and high morale (Manion, 2009). Job resources have been found to be the strongest predictors of work engagement (Bakker, et al, Mauro, et al, 2007, Rothmann & Joubert, 2007, Schaufeli & Baker, 2004).

The Job Demands–Resources (JD-R) model specifies how job strain and work engagement may be produced by two specific sets of working conditions that can be found in every organizational context: job demands and job resources, which can be broken into organizational and social resources (Schaufeli, Bakker, & Van Rhenen, 2009). Organizational resources include job control, potential for qualification, participation in decision making, and task variety. Social resources refer to support from colleagues, family, and peer groups. In a work environment that lacks job resources, individuals have greater difficulty coping with the negative influences of environmental demands, such as high workload, and ultimately reaching their goals (Schaufeli, Bakker, & Van Rhenen, 2009). The end result can be withdrawal and decreased commitment to the job (Bakker, Demerouti, & Schaufeli, 2003; Demerouti et al., 2001).

As proposed by the JD-R model, job resources have motivational potential and lead to high work engagement, low cynicism, and excellent performance (Bakker, et al, 2006). Job resources may play either an intrinsic motivational role because they foster employees' growth,

learning and development, or they may play an extrinsic motivational role because they are instrumental in achieving work goals (Hanaken, et al, 2006). Job resources particularly influence work engagement when job demands are high. People will seek to obtain, retain, and protect that which they value, such as material, social, personal, or energetic resources. The theory proposes that stress experienced by individuals can be understood in relation to potential or actual loss of resources. Job demands and resources may also be affected by employees' perceptions of the working environment.

When the external environments lack these resources, individuals may find it more difficult to manage the negative demands of their work environment (i.e. high workload), and lead to low work engagement, poor performance goals and decreased retention (Schaufeli, et al, 2009). When organizations do not provide sufficient support resources, employees will experience withdrawal and decreased commitment (Bakker, Demerouti, & Schaufeli, 2003; Demerouti et al., 2001). This, in turn, may heighten work stressors. These heighten work stressors impact the FLNM by disrupting their work environment and commitment to organizational goals.

Summary

Front line nurse managers are recognized as leaders with attributes that enable the patient care unit and the enterprise to achieve organizational goals. Ways in which nurse managers engage in decision-making and problem solving has a strong impact on operational processes, work flow and the stability of in-place structures for patient care delivery on a unit. Work engagement of the FLNM may be influenced by the work stressors and perceived organizational support and can lead the FLNM to achieve success or withdraw from the role.

This literature review has provided an overview of engagement theory and its relationship to the job demands & resources model, the challenge and hindrance stressor framework and perceived organizational support research using nurses, service and professional populations. The relationship of work stressors and perceived organizational support on FLNM work engagement was examined in this study.

Informed nursing leadership is key to improving the work environment for nurses and critical for recruiting and retaining nurses at all levels (Wendler, et al., 2009). Through a better understanding of work engagement of FLNMs and of the factors contributing to an engaged FLNM workforce, nursing leaders will be able to enhance the work environment, foster a culture of excellence and sustain effective succession planning for FLNMs. Prior to this research, no studies have related these concepts within the FLNM population. This descriptive correlational study aims to address these research gaps in the literature.

Chapter III

Methodology

The purpose of this study was to investigate the relationship among work stressors, perceived organization support, age and work engagement of the front line nurse manager (FLNM) and to test whether perceived organizational support moderates the relationship between work stressors and work engagement. This chapter provides a discussion of the methodology employed in the study. It includes the rationale for the research design, the sample and the instruments used. It continues with the discussion of the data analysis procedures and ethical considerations.

Research Design and Rationale

This study used a cross-sectional, descriptive correlational design and employed a survey method of investigation. Non-experimental design is an investigation of current status or relationships, which includes defining characteristics that are descriptive in nature (Polit & Beck, 2008). While the correlational design might not allow prediction of an outcome, it provides data that identifies whether two sets of data vary consistently (Creswell, 2008). For this study, data were collected from participants to measure and predict the relationship between work stressors, perceived organizational support, age and the work engagement of the FLNM.

Sample

A convenience sample was used to gather the sample for this study. Nurse managers working in acute-care medical centers and hospitals were included in this study. The sample came from a population of members of the American Organization of Nurse Executives (AONE) and nurse managers within the tri-state area region (New York, New Jersey, Connecticut and Pennsylvania).

The sample for this study was defined as front line nurse managers with one or more years of supervisory experience as front line nurse managers who are employed in acute care hospitals. The FLNMs have as their primary responsibility a clinical unit as an inpatient nurse manager, supervisor, administrator or clinical nurse leader with five or more full time equivalents (FTEs) nurses on staff and 24 hour unit responsibility within an acute care environment (acute care hospital or academic medical center).

Multiple strategies were used to gather participants for this study. All nurse managers who were members of the American Organization of Nurse Executives (AONE) were invited to complete a web-based electronic survey. This included AONE members with titles listed as nurse manager, nurse administrator, clinical nurse manager and unit manager. AONE had 530 members with these titles, and recruitment materials were mailed to them. To expand the participant pool of FLNMs, a contact email was sent to nurse colleagues of the principle investigator (PI) within the tri-state region (New York, New Jersey Connecticut and Pennsylvania).The invitation seeking additional participants was sent through email and by word of mouth with a request to send the information sheet and recruitment flyer to other front line nursing managers in medical centers and hospitals, who could be potential research participants.

The introductory letter specified the inclusion criteria required for participation in the study. Screening questionnaire was used to prevent non-FLNMs from answering the survey. If participants met the screening criteria, they were invited to participate and instructed about how to log into the survey collector website on SurveyMonkey.com. Inclusion criteria included FLNM with one or more years of supervisory experience employed in acute care hospital (medical center) with their primary responsibility a clinical inpatient unit. The FLNM has twenty-four hour unit responsibility with five or more full time equivalents (FTEs) nurses on

staff. Front line nurse managers with less than one year supervisory experience were not included in the study. This study also excluded middle and executive management or leadership.

Data Collection Procedures

The research utilized an electronic mail survey instrument to gather data. Members of AONE were mailed the introductory recruitment letter and flyer via postal service, asking them to participate in the study. The introductory recruitment letter included inclusion criteria, questionnaire explanation of the study, contact information, directions on where to go to complete the survey/questionnaire and their rights as study participants.

An Excel spreadsheet was generated listing 530 participants of AONE who were sent recruitment material via postal mail. This spreadsheet was retained by the researcher so that reminder post cards could be mailed to the participants. Two follow-up reminder cards were mailed to encourage completion of the survey by non-respondents. These reminders were sent on the second and fourth week after the initial introductory/recruitment letter was sent for follow-up. The participants had six weeks to go to the survey collector site and complete the survey online.

The researcher attended the annual AONE conference on March 21 -24, 2012. Paper and pencil copies of the flyer, information sheet, consent and survey questionnaire were also available for distribution at the annual AONE meeting if participants preferred. Self-addressed postage paid return envelopes were provided. The recruitment flyer for the duration of the conference was placed in strategic locations (e.g., lounge, poster session area, book store and computer stations). The recruitment script (see Appendix G) was also the first page of the electronic SurveyMonkey questionnaire.

Due to a limited response, the participant pool of FLNMs was expanded. IRB approval was amended to allow for further recruitment of participants. Contact via electronic mail was sent to nurse colleagues of the PI within the tri-state region (New York, New Jersey Connecticut and Pennsylvania) to further engage front line nursing managers in medical centers and hospitals as research participants. An invitation, recruitment flyer and information sheet was included in the electronic mail. The electronic mail included a request to forward the materials to other potential participants.

The recruitment letter included information about confidentiality of their responses and the general handling of the returned data. At any time, the participant could select not to participate and could opt out by not finishing the survey. A consent form was provided before the participants could start the questionnaire. An incentive was offered to all participants in the form of a raffle of gift certificates. All participants were given an opportunity to participate in the raffle whether they completed the survey. The survey contains an optional question for raffle participation. The respondent clicked on the response button and was directed to another screen to provide name, email address and optional mailing address for entrance into the raffle.

Data collection utilized a web-based encrypted online questionnaire via SurveyMonkey. Work engagement was measured by the Utrecht Work Engagement Survey (1999). The Challenge and Hindrance Stressor Scale (2000) measured work stressors. Organizational support was measured with the Survey of Perceived Organization Support (1986). The questionnaire measures were given to all participating FLNMs. A demographic data sheet was used to collect participant's demographic information such as age, as well as gender, educational background, years in the field, , years in present management position, AACN Magnet designation, state where employed, employment setting and current unit (see Appendix A). Web-based

questionnaires allow for quick results from completed surveys as well as ease of follow up for reminders and follow up on non-respondents. Surveys allow the researcher to include a larger number of participants at a reasonable cost (Dillman, 2009; Burton, 2011). With web-based questionnaires, respondents can complete the questionnaires at their own pace and convenience (Burton, 2011). Drawbacks of a web-based survey may include email viewed as non-significant, and the decision to not respond or refuse (Burton, 2011). Data on response rates are not well described in the literature. Though Dillman, Smyth & Christian (2009) provide strategies to improve response rate, predictions for response rates were not offered.

Sample Size

A priori power analysis was conducted using software G*Power 3.0.10 (Faul, Erdfelder, Lang & Buchner, 2007) to determine the required sample size to answer the research question. The sample size for this research is a minimum 107 participants, which was predetermined by multiple hierarchical regression model with a significance level of .05, power ~ 80%, estimated effect size of $R^2 = 0.15$, for the two independent variables. Alpha and beta significance levels were set at .05 and .20, respectively (Polit & Beck, 2008). An effect size measures the strength of a relationship between two variables in a population; it is “the magnitude of the effect of an independent variable on the dependent variable” (Munro, 2005, p. 100). A .80 effect size is considered large (Polit & Beck, 2008). Sampling accounted for possible incomplete surveys and excluded participants who answered the survey but did not fit the sampling criteria. Therefore a total of (n=97) participants completed the questionnaire.

Instruments

Participant Eligibility Screening

Participants were asked to complete a questionnaire asking for the following the information sheet to determine their eligibility for this study. Disqualification (skip) logic was used in the beginning of the survey to eliminate the participants that did not meet the study inclusion criteria.

Demographic Information

A demographic data sheet was included. Investigators often choose to collect demographic data so as to follow-up this data in relation to other study variables (Creswell & Plano-Clark, 2007). In this study, because nurses' age in relation to other study variables was of primary interest (i.e., relation to work engagement), the demographic sheet assessed age, as well as gender, educational background, years in the field, years in present position, AACN Magnet designation, state where employed, employment setting and current unit.

Utrecht Work Engagement Survey (UWES)

Developed in 1999, the Utrecht Work Engagement Survey Scale (UWES) consists of 17 items in a 7-point Likert format (see Appendix B). The 17-item Utrecht Work Engagement Scale, a "work and well-being" self-report questionnaire measures three dimensions of well-being that a worker feels while at work. The UWES consists of three subscales: *vigor* (6 items), *dedication* (5 items), and *absorption* (6 items). For all subscales the Cronbach's α was equal to or greater than .70 (Schaufeli & Bakker, 2003, p. 7) in a population of employees (n=619) and students (n=314). Both groups were used to test the short version of the UWES-9 to UWES-17. Responses measure how often the employee has experienced the feelings at work, from 0 (never)

to 6 (every day) (Schaufeli & Bakker, 2003). Possible total score for the survey range is from 0 to 54 with higher scores indicating higher work engagement.

Vigor refers to high levels of energy and mental resilience while working, the willingness to invest effort in one's work, not being easily fatigued, and persistence in the face of difficulties (Schaufeli & Bakker, 2003; Seppala, Mauno, Feldt, Hakanen, Kinnunen, Tolvanen & Schaufeli, 2008). *Dedication* refers to deriving a sense of significance from one's work, feeling enthusiastic and proud about one's job, and feeling inspired and challenged by one's work (Schaufeli & Bakker, 2003; Seppala, et al., 2008). *Absorption* refers to being fully concentrated and deeply engrossed in one's work and is characterized by time passing quickly and difficulties in detaching oneself from work (Schaufeli & Bakker, 2003; Seppala, et al., 2008).

Originally, the scale included 24 items: vigor (9 items), dedication (8 items), and absorption (7 items) (Schaufeli, Salanova et al., 2002). After evaluation of the psychometric properties in two samples of Spanish participants, seven items were eliminated since they negatively affected or did not contribute to the level of α resulting in a 17-item scale. Schaufeli, Salanova et al. (2002) tested one-factor, two-factor and three-factor models of engagement in a sample of Spanish university students ($n=314$) and employees ($n=619$). Reliability measures used were internal consistency and test retest. Internal consistency reliability estimates for UWES responses were reported for each subscale: vigor (.78 and .79), dedication (.84 and .89), and absorption (.73 and .72) (Schaufeli, Salanova et al., 2002). Cronbach's alpha reported for the sample of Dutch and Spanish participants ($n = 1,099$) ranged from .70 to .90 for each subscale (Schaufeli and Salanova, 2007a). Reliability estimates ranging from .70 to .90 were also reported for each subscale for a four-sample study of Dutch employees ($n = 1,698$) (Schaufeli & Bakker, 2004). Internal consistency was supported by a Cronbach's alpha of 0.92 for the total scale and

0.86 for vigor, 0.86 for dedication, and 0.79 for absorption subscales (Schaufeli, et al, 2002). The three dimensions are highly correlated. Test-retest stability of the shortened version was similar to that of both longer versions (Schaufeli & Bakker, 2003).

The structural validity of UWES scores was evaluated by means of confirmatory factor analysis (Schaufeli, Salanova et al., 2002). In a Spanish sample, results indicated that although subscales were correlated (mean $r = .63$ and $.70$), a three-factor structure for vigor, dedication and absorption fit the data well. Construct validity studies have focused primarily on the relationship between engagement and burnout. Schaufeli, Martinez et al. (2002) found that the UWES and Maslach Burnout Inventory (MBI; Maslach, Jackson, & Leiter, 1996) scales were significantly and negatively correlated ($r = -.47$ and $-.62$). The model that fit the data best was comprised of a core burnout factor (exhaustion and cynicism) and an extended engagement factor (vigor, dedication, absorption, and professional efficacy). A single score UWES will be used for this study.

Survey of Perceived Organizational Support (SPOS)

The Survey of Perceived Organizational Support is a unidimensional measure of perceived organizational support. Perceived organizational support refers to the employees' general belief about the extent to which an organization values and cares about their well-being. Eisenberger, Huntington, Hutchinson and Sowa (1986) administered the original 36-SPOS to a sample ($n = 361$) from multiple service professions including manufacturing, clerical, financial, high school teachers and telephone company employees. A reliability and item analysis of the scores obtained in the original study indicated good internal consistency (Cronbach's alpha of 0.97), with item-total correlations ranging from 0.42 to 0.83 (Eisenberger, et al, 1986). The mean and median item-total correlations were 0.67 and 0.66, respectively.

In the original study, Eisenberger *et al.* (1986) used principal components analysis and reported that every one of the 36 items showed a strong loading on a single component accounting for 48.3% of the total variance with a possible second component accounting for 4.4% of the total variance. Shore & Tetrick (1991) used confirmatory factor analysis to examine the dimensionality of the SPOS and to determine the distinctiveness of this construct from other similar constructs. The results ($n=330$; mechanics, secretaries, and supervisors) support the SPOS as a unidimensional scale that is different empirically, as well as conceptually from affective and continuance commitment (Shore & Tetrick, 1991).

The 8-item shortened Survey of Perceived Organizational Support (SPOS) developed by Eisenberger, Huntington, Hutchinson and Sowa (1986) uses a 6-point Likert format ranging from 0 indicating “strongly disagree” to 6 indicating “strongly agree” to assess the extent that employees perceive that an organization values their contributions and cares about their well-being (see Appendix D). The SPOS is a unidimensional measure of perceived organizational support; a single SPOS score is obtained. Possible scores range from 0 to 48, with higher scores indicating perceived organizational support. A sample item on the SPOS is “the organization really cares about my well-being.” A typical reversed score item on the SPOS is “the organization fails to appreciate any extra effort from me”.

Eisenberger, Cummings, Armeli, Lynch (1997) administered the 8-item SPOS to a sample of 295 telephone employees. The Cronbach's alpha for the 8-item scale was 0.90 . The psychometric properties of the original 36-item Survey of Perceived Organizational Support (SPOS) was examined along with a variety of shorter versions currently in use (sixteen items, eight items and three items) in a sample of $n=868$ full time college employees (Worley, Fuqua & Hellman, 2009). The regression equation for the 8-item scale with all the predictors entered was

statistically significant [$F(3,255) = 74.69, p < 0.001$], accounting for approximately 46.8% of the variance scores (Worley, Fuqua & Hellman, 2009). Subsequent exploratory and confirmatory factor analyses with employees from diverse occupations (supervisors, nursing managers) and organizations provide evidence for the high internal reliability and unidimensionality of Eisenberger et al.'s SPOS both in its original, 36-item form and subsequent, shorter versions (e.g., Armeli, Eisenberger, Fasolo, & Lynch, 1998; Lynch, Eisenberger, & Armeli, 1999; Rhoades and Eisenberger, 2006).

In a sample of front line nurse managers ($n = 202$), perceptions of organizational support and respect were strongly associated with the organizational conditions under which they worked. Therefore, perceptions of organizational support are important for recruitment and retention (Laschinger, Purdy, Cho & Almost, 2006). Front line nurse managers reported moderate levels of perceived organizational support ($M = 4.44, SD = 1.09$, Cronbach's alpha = 0.91). The SPOS-8 version was used for this study.

Challenge-Hindrance Stressor Scale

Challenge/Hindrance stress levels were measured using the 11-item Challenge-Hindrance Stressor Scale (Cavanaugh et al., 2000; LePine et al., 2004) (see Appendix C). The stressors scale is a self-reported frequency measure designed to assess individual perceptions of situations commonly associated with a stress reaction, ranging from time pressures, to overall responsibilities, to volumes of work, as either challenge or hindrance stressors. The aim of this scale is to assess how an individual both rates a stressor in terms of magnitude and appraises stressors as a challenge or as a hindrance. Since work engagement may be affected by work stressors, this scale can elaborate on the particular stressors that impact work engagement. Participants respond to the statements and indicate frequency of stress on a Likert scale (1 = No

stress to 5 = a great deal of stress) to each statement and indicate the level of stress each circumstance produces.

Cavanaugh, Boswell, Roehling & Boudreau, (2000) conducted a Q-sort of items taken from several popular measures of work-related stressors categorizing the stressors into challenge versus hindrance (16 items). Five items were removed from further analysis as a result of their ambiguity and similarity to other items. Content validity of the scale was assessed using four independent judges. Confirmatory factor analysis provided modest support for the two-factor model, $\chi^2(43, N = 1,769) = 540.71, p < .00$. Construct validity was assessed as evidence of discriminant validity by examining the scales' respective patterns of correlations ($\alpha = .87$ challenge and $.75$, hindrance) with third variables (e.g., personality variables - neuroticism and extraversion) using reliability coefficients and correlational analyses ($.28, p < .01$) between the stress scales). Testing the scales' predicted differential relationships to the focal outcome variables (job satisfaction ($r_c = .57, p < .05$), job search ($r_c = .49, p < .05$), and voluntary turnover ($r_c = .23, p < .05$) (Podsakoff, LePine & LePine, 2007) was measured by using meta-analysis estimates.

In a study by LePine, LePine and Jackson (2004) found a significant indirect effect of challenge stressors on learning performance through motivation to learn. There were statistically significant direct positive effects of challenge stress ($\gamma = .15, p = .05$) and hindrance stress ($\gamma = .15, p = .05$) on learning performance. The stressor scales instrument demonstrated an overall internal consistency Cronbach's alpha of 0.86 for the challenge items and 0.73 for the hindrance items for this study (LePine, et al., 2004). In addition, these authors conducted a confirmatory factor analysis (CFA) and reported that the measures of the challenge and hindrance stressor constructs were distinct from each another and valid. (LePine, et al., 2004).

Data Collection Procedures

Prior to implementation of this study's research, Institutional Review Board (IRB) approval was obtained from the City University of New York (CUNY) IRB. The informed consent identified the focus of the research as well as a promise of confidentiality for the participants (see Appendix E). Research participants were informed that they will be able to terminate participation at any time.

An introductory letter was mailed to nurses on a purchased membership list of AONE with a title of nurse manager, nurse administrator, clinical nurse manager or unit specific manager, describing the purpose of the study with an invitation to participate voluntarily in the study. An electronic questionnaire that included eligibility criteria, consent, a demographic data sheet, the 17-item Utrecht Work Engagement Scale, Challenge-Hindrane Scale and SPOS-8 scale was accessed through SurveyMonkey.com. After accepting the informed consent, individuals were directed to the web-based questionnaire. Responses were collected electronically using SurveyMonkey.com, encrypted secure web-based software. The collection site has an encrypted Secure Socket Layer (SSL) version of survey that decreases the risk that responses will be viewed by unauthorized persons. Completion of the questionnaire took approximately 15-20 minutes. A separate account was used where only data for this survey resides. The data retrieved from the survey collector (SurveyMonkey.com) was stored in the primary investigator's (PI) password-protected home computer, which is maintained by both firewalls and secure login to prevent unauthorized access to survey data. The researcher's computer also has encryption software to prevent unauthorized access if lost or stolen. Paper questionnaires were stored in a separate locked file cabinet in the PI's home office. The data will be kept securely until they are destroyed.

SurveyMonkey Questionnaire

Data were collected via an electronic, password protected questionnaire.

SurveyMonkey.com allows researchers to design their own professional surveys (i.e., multiple choice questions, rating scales, drop down menus, etc.). The appendices B-D, along with the consent (see Appendix E) and survey eligibility explanation (see Appendix A), were placed into the SurveyMonkey format. Data security was maintained. SurveyMonkey employs multiple layers of protection to ensure that accounts and data remain private (i.e., a third-party firm conducts daily audits of security and the data resides behind the latest in firewall and intrusion prevention technology) (Finley, 2010). All data were de-identified by SurveyMonkey as set by the parameters during survey development before being sent to the researcher (collected on March 26, 2013) Additionally, the researcher maintains all de-identified data in her password protected home computer.

The participants were able to voluntarily participate in the random raffle drawing, to potentially receive one of three \$50.00 gift certificates to an Amazon.com. They were able to enter their name and email address at the end of the online questionnaire if they chose to participate. This information remained confidential. It was used solely for the raffle drawing and was known solely by the researcher, who maintained it in her password-protected home computer or locked drawer. Raffle winners were drawn at the completion of data collection and the names of all who voluntarily provided names and emails were confidentially discarded immediately after the raffle drawing. Winners were notified by email immediately after the raffle drawing and participant names and email addresses were destroyed and will not be used in any reports.

Protection of Human Subjects

To protect human subjects in research, IRB approval from Hunter College, City University of New York was obtained prior to commencement of the study. The introductory recruitment letter provided participants the information necessary for informed consent (see Appendix A). Participants received an explanation of the study and risks and benefits associated with the study. The use of the electronic consent form acknowledges the participant's rights. Before the participants engaged in the research, they were informed that the data will be maintained in a confidential secure manner. Study participants were able to choose not to participate and/or withdraw study participation at any time (Creswell, 2008). Participants were told that their identity was not linked to individual responses. Confidentiality of the data collected from the participants was maintained as declassified data, and only group data was reported. Voluntary consent recognizes the fact that each person has an inherent capacity for self-determination (Creswell, 2008; Polit & Beck, 2008). Ethically, in this study, each participant's autonomy in decision-making was respected.

Data Analysis

Data analysis was conducted using Statistical Package for Social Sciences IBM (SPSS) 20.0. Descriptive statistics were provided for work stressors, perceived organization support, age and work engagement. Correlations were calculated for work stressors, perceived organization support, age and work engagement. Parametric statistical procedures were used. The following research question and hypotheses were proposed in this study.

Research Question

Research Question 1: What is the relationship between work stressors and perceived organizational support and the work engagement of the front line nurse manager?

Hypotheses

Hypothesis 1: Front line nurse managers with increased work stressors will have lower work engagement.

Hypothesis 2: Front line nurse managers with increased perceived organizational support will have higher work engagement.

Hypothesis 3: Perceived organizational support will moderate the relationship between work stressors and work engagement. Specifically, higher perceived organizational support buffers the effect of work stressors on work engagement.

Hypothesis 4: Older (chronological age) front line nurse managers will report higher work engagement.

The Utrecht Work Engagement Survey, Survey of Perceived Organizational Support and Challenge and Hindrances Stressor Scale are Likert scales. Data collected from these scales are ordinal in nature. The values of each item of a Likert scale are ordinal level data: summed scores represent interval data. Use of summed scores allows for more sophisticated analyses (Burns & Grove, 2009). The significance level was set at 0.05. Age was collected from the demographic sheet.

The sample was described by age, gender, ethnicity, marital status, highest degree of educational background, years in nursing, , years in nursing management, AACN Magnet designation, number of direct reports, type and size of institution, state where employed and current unit.

Each survey was scored according to instructions provided by the authors of those instruments. Cronbach's alpha was determined for each instrument. Cronbach's alpha showed good reliability with item-total correlation similar to previous research. A factor analysis was not

performed on the UWES measure. It was determined the three factors of engagement proposed by Schaufeli & Bakker (2003) held true with the study sample. A total score was tabulated for each instrument. Pearson correlation coefficients were calculated to assess the relationship between work stressors, perceived organizational support and FLNM work engagement. Scores were reported descriptively using means, frequencies and standard deviations. A correlation matrix on all data was generated using Pearson (r) for each independent variable (work stressors and perceived organizational support) against the predicted variable (work engagement). A multiple linear regression analysis was used to test the hypotheses regarding main effects and their interactions as predictors of work engagement. A Y-hat test was used to determine the nature of the interaction between perceived organizational support and work engagement (e.g. buffer or exacerbation effect), and if the beta weights were significant. Hierarchical multiple regression was used to determine predictability among significantly correlated variables. The Y-hat test was used to differentiate between the predicted (or fitted) data and the observed data. The benefit of using a regression analysis for the purposes of assessing these relationships is that it allows the researcher to explicitly control for many other factors that simultaneously affect the dependent variable (Munro, 2005).

Summary

This chapter provided a discussion of the methodology employed in the current study. The rationale for the survey design, the sample size, data collection procedures, and demographics, the measures instruments used in this study were discussed. Each instrument was selected because of its simplicity of use and has been widely utilized in scholarly studies. A discussion of the data analysis procedures and ethical considerations relevant for this study were included. Protection of human subjects including the process of obtaining informed consent,

electronic survey process and securing electronic data were identified. Measures to maintain security and confidentiality with electronic information were also included. Chapter IV discusses the data analysis procedures and results of the study.

Chapter IV

Results

The purpose of this study was to examine the relationship between the dependent variable work engagement (WE) and the independent variables work stressors (WS) and perceived organizational support (POS). It was hypothesized that work stressors would decrease work engagement and perceived organization support would increase work engagement and moderate work stressors relationship with work engagement. These relationships were tested utilizing Pearson's correlation and linear regression with data collected via an online survey from a convenience sample of frontline nurse managers belonging to the AONE and within the tri-state area of New York. The statistical findings of this study are presented as outlined in the following five sections: (a) data collection results, (b) sample characteristics, (c) descriptive statistics, (d) psychometric evaluation of the instruments to measure accuracy and (e) primary data analyses for each hypothesis. A summary of data analyses concludes this chapter.

Data Collection Results and Response Rates

The sample for this study, front line nurse managers (FLNMs) were recruited from the American Organization of Nurse Executive membership and the New York tri-state area. One hundred and thirty-two participants responded to the online questionnaire survey. Participants were asked to complete five inclusion criteria including consent, nineteen demographic questions and three separate Likert-item study instruments: Utrecht Work Engagement Scale (UWES, 17 items), (2) Challenge/Hindrance Stressor Scale (11 items) and (3) Survey of Perceived Organizational Support (SPOS, 8 items).

If participants did not meet the inclusion criteria they were appropriately excluded from the analysis and were not examined in final analysis. Based on the whole data set, there were 132

participants 35 of whom were excluded. Two of these were not FLNMs, four had not been in the position for 1 year, eight did not have 24/7 responsibility, therefore not meeting the inclusion criteria. Consequently, for the 117 participants who met the inclusion criteria, only 17.9% were excluded due to missing data compared to 26.5% of the whole data set. Seventeen participants did not complete the three instruments, three did not complete the SPOS scale and one did not complete the demographics.

After deleting cases with missing data and cases that did not meet the inclusion criteria, 97 cases were retained for analysis. The a priori power analysis G*Power 3.0.10 (Faul, Erdfelder, Lang & Buchner, 2007) established that there was adequate power to detect significant relationships if they were present.

Prior to analysis, all variables were examined through descriptive and case summary reports for accuracy of data and missing values. Nine of the eligible 97 participants (8%) demonstrated missing data in their instrument question responses, (i.e., 9 participants did not answer one question from the three Likert-item study instruments). There was no pattern in the missing data. A summary of the missing data follows: (1) one answer on the UWES missing (Question #3), (2) one answer on the UWES missing (Question #4), (3) one answer on the UWES missing (Question # 7),(4) one answer on the UWES missing (Question #11), (5) one answer on the UWES missing (Question # 13), (6) one answer on the UWES missing (Question # 14), (7) one answer on the UWES missing (Question # 15), (8) one answer on the UWES missing (Question #17), (9) two answers on the Challenge/ Hindrance Stressors Scale missing (Question #4), (10) one answer on the Challenge/ Hindrance Stressors Scale missing (Question #8) (11) one answer on the Challenge/ Hindrance Stressors Scale missing (Question #11), (12) one answer on the SPOS missing (Question #3), (13) one answer on the SPOS missing (Question

#4). As the summary demonstrates, in each of the nine missing data cases the extent of the problem was not large and the missing values appeared reasonably random. When missing values are reasonably random and when the extent of the problem is not large, researchers may perform a mean substitution (Polit & Beck, 2008). These values were substituted with means as recommended by Tabachnick and Fidell (2007) when missing data points total < 5%. Notably, there were no differences in analyses run with and without these cases. Excluding 18% of eligible participants due to missing data was not a source of bias in the results.

Sample Characteristics

Descriptive statistics, frequencies and percentages for the demographic characteristics of age, gender, years of nursing education, management experience and number of FTEs are presented in Table 4.1. The majority of the nurse managers in this sample were female (93.8%), [6.2% male, and averaged 47.7 years of age ($SD = 8.8$). This sample was predominantly White (79.1%). Other ethnicities included Black or African American (10.4%) Hispanic/Latino (5.2%) and Asian Pacific Islanders (4.2%). The nursing education of the study participants was associate degree (5.3%), followed by baccalaureate degree (36.8%), master's degree (56.8%), and doctoral degree (1.1%). A proportion of the nurse manager respondents with non-nursing degrees included baccalaureate degree (51.8%), master's degree (46.4%), and doctoral degree (1.8%). The average overall years of nursing experience average was 22.4 with a range of 5 to 38 years. The respondents averaged 11.1 years of nursing management experience with a range of 1 year and up to 34 years. They managed 56.7 full-time equivalents (FTEs) ($SD = 38.8$) and 2 or more units (55.7%). Forty-three percent worked at institutions with American Nurse Credentialing Center (ANCC) Magnet designation and 29.5% were working toward Magnet designation while 27.4% were not pursuing Magnet designation at this time (27.4%). The Magnet Recognition

Program® recognizes healthcare organizations for quality patient care, nursing excellence, leadership and innovations in professional nursing practice (ANCC, 2013). Fifty-one percent of FLNMs were satisfied with compensation (salary, bonuses, and benefits) in their current role while 14.7% were dissatisfied. The majority of the participants managed medical–surgical units (28.1%) and critical care units (18.8%).

Table 1

*Sample Demographics Compared to 2008 National Sample Survey of Registered Nurses’
(NSSRN) Data*

Variable	n	Mean (SD)	Range	Percentage	NSSRN 2008
Age	93	47.7 (8.9)	29-64		47
Gender	96	0			
Female	90			93.8	92.9
Male	6			6.2	7.1
Ethnicity	96				
Caucasian	74			79.4	83.2
African American	10			10.4	5.6
Hispanic	5			5.2	3.9
Non-Hispanic White	1			0	NA
Asian-Pacific	4			4.2	5.8
Native American/Other	1			1	0.3
Highest Nursing Education	95				
Associate degree	5			5.3	33.6
Bachelor degree	35			36.8	34.8
Master’s degree	54			56.8	19.6c
Doctorate degree	1			1.1	NAc
Highest Non-nursing Education	56				
Bachelor’s degree	29			51.8	
Master’s degree	26			46.4	
Doctorate degree	1			1.8	
Years of nursing experience	94	22.4 (8.9)	5-38		
Years of management experience	97	11.1 (8.1)	1-34		
Magnet status	95	1.8 (.82)			
Yes	41			43.2	
On journey	29			29.5	
Not at this Time	26			27.4	
Number of nursing FTEs	95	56.6(38.8)	8-320		
Number of units managed	95				
One	41			43.2	
Two or more	54			55.8	
Plan to stay in position Next 12 months	96			88.5	

Note. n=number of participants. SD=Standard Deviation. FTEs=Full time equivalent employees. a Sample includes all registered nurses working in nursing. . b Subsample includes only those registered nurses in management and administrative positions. c Master’s and doctorate degrees were combined in the NSSRN report.

For nursing experience the mode is 96 months while for management experience the mode was 62 months. Nursing experience is normally distributed but those with only a few years of management experience are over-represented in this sample.

Table 2

Descriptive Statistics of Nursing and Nursing Management Experience

Items	Nursing experience in months	Nursing experience in months
Mean	5265.06	120.39
Mode	96	62
Median	278.00	90.00
Standard deviation	103.91	85.85
Range	375.00	372.00
Minimum	62.00	14.00
Skewness	-0.18	1.59
Kurtosis	-0.82	2.30

Assessment of the Reliability of the Study Instruments

The Cronbach's coefficient alpha was used to measure the reliability of the three Likert-item study instruments. Cronbach's alpha is an estimate of internal consistency, or how closely the items on the scale are measuring the same underlying dimension (Polit & Beck, 2008). An acceptable coefficient for an established instrument is .80. The three Likert-item study instruments demonstrated adequate reliability with Cronbach's' alpha 0.85 and greater.

Original calculations to detect a small difference in effect size (.15) estimated a need for a sample of 107. The sample size needed to detect a moderate difference in effect size (.20) was computed to be 68. The current sample size of 97 is adequate for a power of .80, significance of .05 and effect size of .20. Characteristics of study variables were examined to determine that

they met required statistical assumptions. Assessment of normality, linearity and homoscedasticity were evaluated for the variables through component reliability and univariate skewness, kurtosis and histograms. For regression analysis, Durbin-Watson test, tolerance, residual scatterplots and standard residual values were used to assess regression statistical assumptions.

Durbin-Watson's test (Field, 2005) was used to evaluate the assumption of independent errors. The Durbin-Watson value was 2.18. According to Field (2005), homoscedasticity is almost met when the Durbin-Watson value is closer to 2, values less than 1 or greater than 3 are problematic (Field, 2005). The tolerance statistics (Tabachnick & Fidell, 2007) measure the extent to which multicollinearity among predictors affect the precision of a regression model. Because tolerance (0 - 1.00) is the proportion of variance in a variable that is not accounted for by other independent variables, high tolerance values are desired and a tolerance value of 0 would signal perfect multicollinearity (Tabachnick & Fidell, 2007). Tolerance scores above .10 are typically considered acceptable. The tolerance score was > 0.813 in all analyses indicated multicollinearity was not a problem. Second, the residual scatterplot demonstrated multivariate normality. Standard residuals values ranged from -1.366 to 1.417, indicative of no extreme multivariate outliers. Standardized residual values that are less than -3 or greater than 3 are indicative of multivariate outliers (Polit & Beck, 2008). The research questions were tested using a 0.05 significance level.

Descriptive Statistics

Scale mean scores, standard deviations, and ranges are reported in Table 4.3. The mean range for work engagement was 3.74 out of a possible 7 ($SD = 0.78$), for work stressors it was 1.55 out of a possible 4.56 ($SD = 0.703$), and for perceived organizational support it was 1.75 out

of a possible 6 ($SD = 0.96$). The UWES-17 total mean score was 5.47 out of 7 ($SD = 0.77$). The work stressors total mean score was 3.3 out of 5 ($SD = 0.70$) and the SPOS total mean score was 4.22 out of 6 ($SD .96$). Frequency histograms of the mean scores and standard deviations were generated (Figures 4.1– 4.3). The assumption of univariate normality was assessed by examining the skewness and kurtosis statistics for each variable (see Table 4.2). All variables revealed normal distribution.

Table 3.

Assumptions of Normality

Items	SD	Skewness	Standard Error of Skewness	Kurtosis	Standard Error of Kurtosis
Work Engagement (UWES)	.78	-.066	.245	-.406	.478
Challenge/Hindrance Stressors Scale	.70	-.372	.246	-.575	.481
Perceived Organizational Support (SPOS)	.96	-.043	.249	-.586	.485

Note. SD=standard deviation.

Based on preliminary data screening (including histograms of scores on work engagement, work stressors and perceived organizational support), it was judged that scores were reasonably normally distributed, relations between variables were reasonably linear, and there were no outliers to have impact on the results. Therefore, it was appropriate to perform a linear regression analysis on these data; no further cases were dropped, and no data transformations were applied. The work engagement variable is referred to as UWES in the discussion and the perceived organizational support is referred to as POS.

Figure 4.1. Work Engagement Histogram

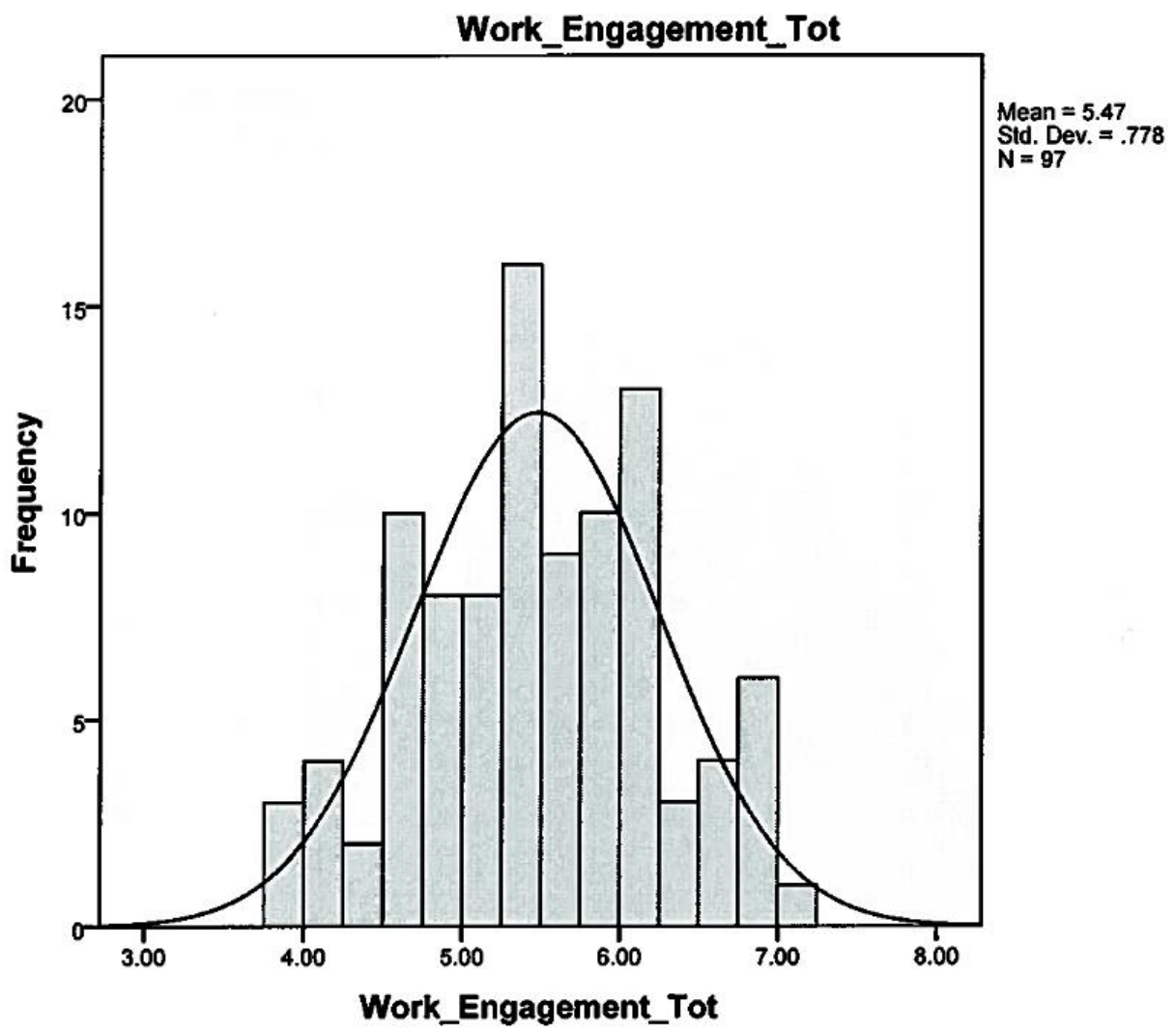


Figure 4.2. Work Stressors Histogram

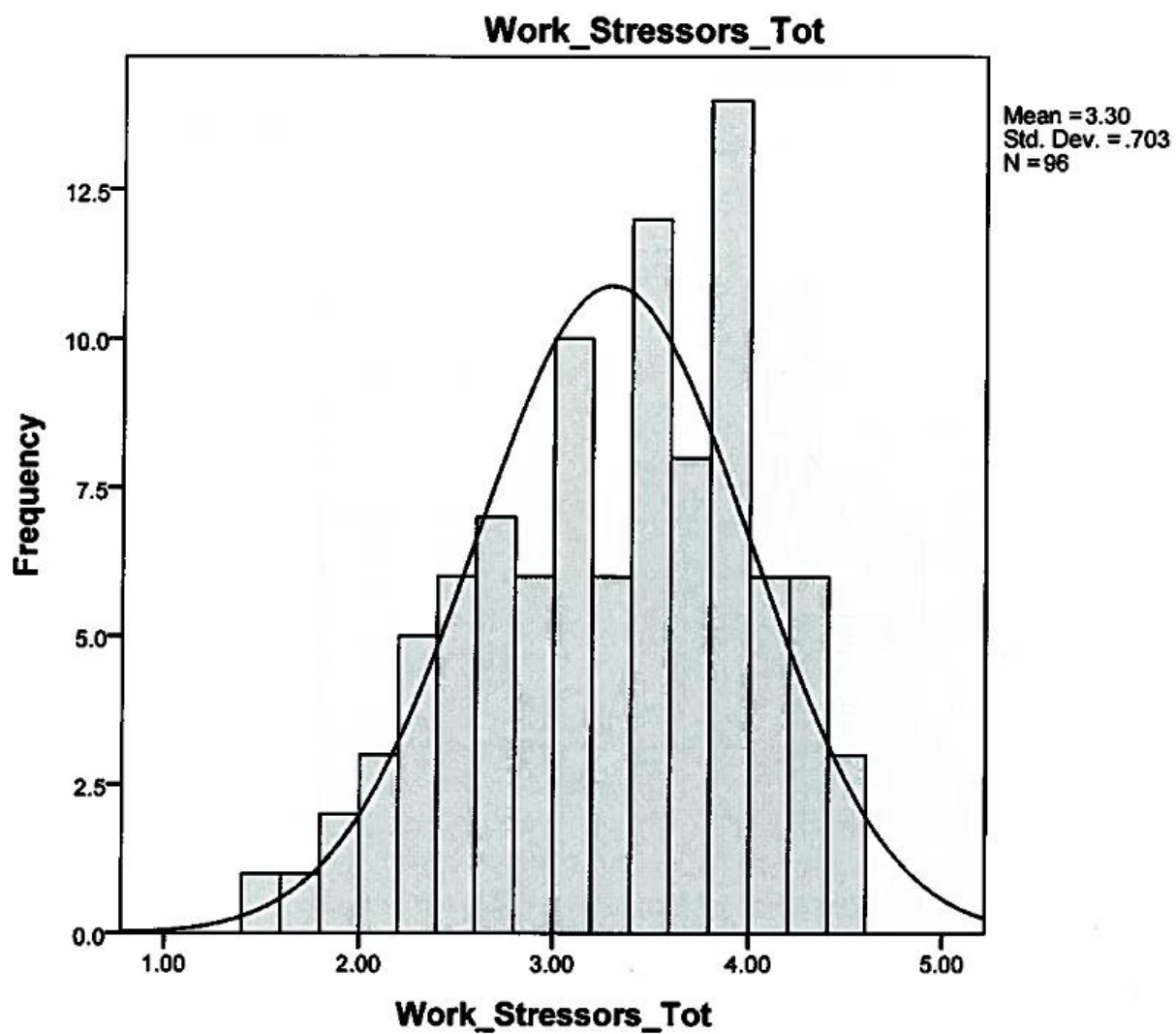
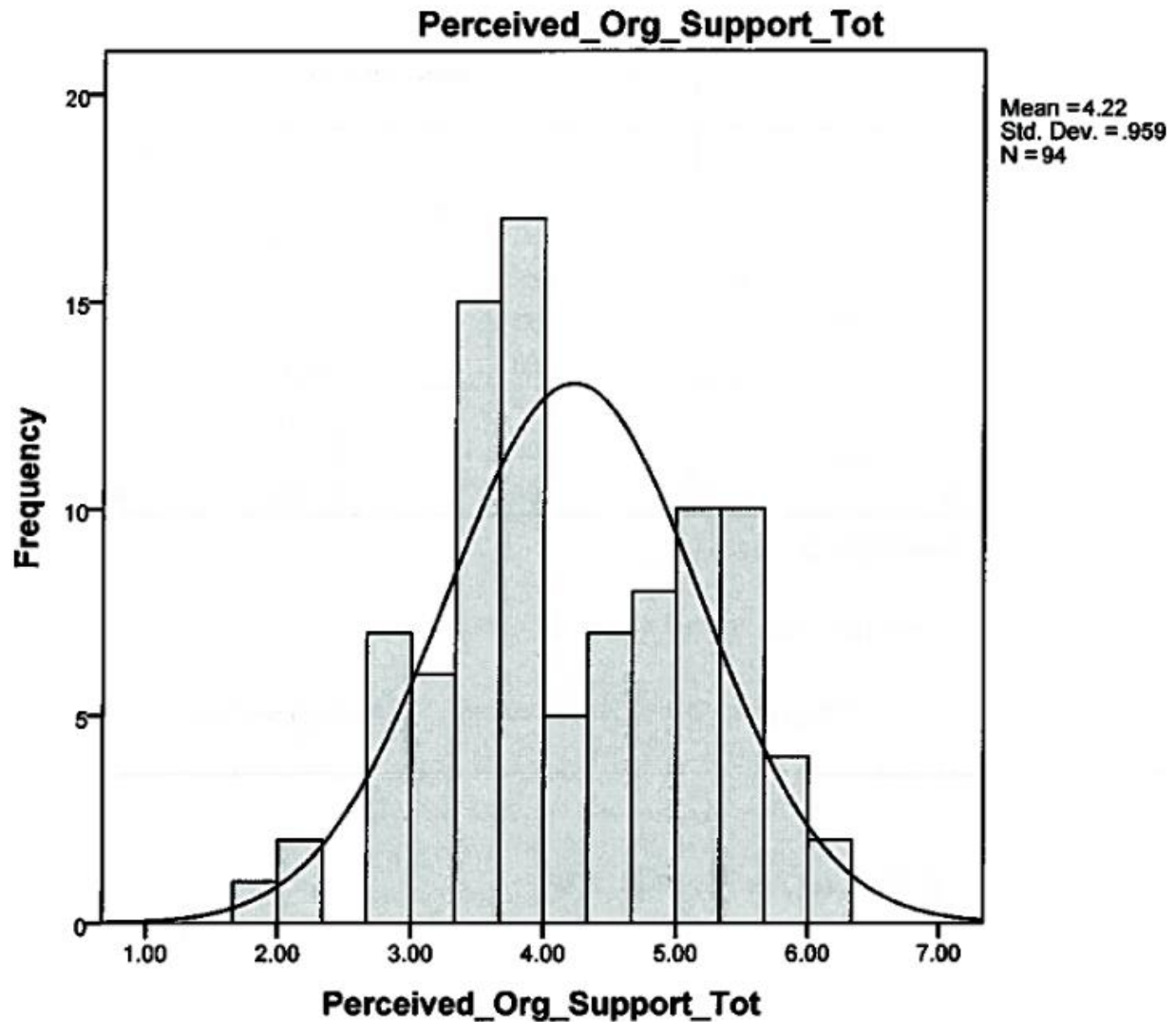


Figure 4.3. Perceived Organizational Support Histogram



Psychometric Evaluation of the Instruments

Reliability analysis was evaluated for each of the scale instruments Utrecht Work Engagement Survey (UWES, 1999), Challenge-Hindrance Stressor Scale (2000, 2004), and Survey of Perceived Organizational Support (SPOS, 1986) used in this study. Cronbach's alpha was used to assess the internal reliability and to evaluate the degree to which the instruments' items were consistent measures of the construct. The Cronbach's alphas of the instruments in this

sample can be found in Table 4.3. The alphas were 0.91 for UWES-17 among nurse managers, 0.85 for Challenge-Hindrance Stressors Scale, and 0.88 for Survey of Perceived Organizational Support. Study instruments demonstrated adequate reliability with Cronbach's alpha 0.85 and greater for use in this study.

Table 4

Means, SD, Range & Scale Reliability Statistics

Items	Mean	SD	Cronbach's Alpha	Mean Range
Work Engagement 17 Items	5.47	.765	.914	4.83-6.22
Challenge-Hindrance Stressor Scale 11 Items	3.30	.701	.850	2.29-3.80
POS (Perceived Organizational Support) 8 Items	4.20	.956	.875	3.51-4.81

Note. SD=Standard Deviation.

Correlation significant at the 0.01 level (2-tailed).

Utrecht Work Engagement Scale (UWES)

The Utrecht Work Engagement Scale (UWES) consists of 17 items in a 7-point Likert format. The 17-item Utrecht Work Engagement Scale, a “work and well-being” self-report questionnaire measures three dimensions of well-being that a worker feels while at work. The UWES consists of three subscales: *vigor* (6 items), *dedication* (5 items), and *absorption* (6 items). Possible total score for the survey range from 0 to 54 with higher scores indicating higher work engagement. For all subscales the Cronbach's alpha was equal to or greater than .70 (Schaufeli & Bakker, 2003). Total scale Cronbach's alpha was of 0.92. Cronbach's alpha

(Nunnally & Bernstein, 1994) for UWES-17, a measure of internal consistency, was .91 for this study and corrected item total correlation ranged from .256 - .789.

Challenge-Hindrance Stressor Scale

Work stressors level was measured using the 11-item Challenge-Hindrance Stressor Scale (Cavanaugh et al., 2000; LePine et al., 2004). The stressors scale is a self-reported frequency measure designed to assess individual perceptions of situations commonly associated with a work stress reaction. The aim of this scale is to assess how an individual both rates a stressor in terms of magnitude and appraises stressors as a challenge or as a hindrance. The scale uses a 5-point Likert format scale ranging from 1 indicating “produces no stress” to 5 indicating “produces a great deal of stress” to assess the extent of work stress. The stressor scales instrument demonstrated an overall internal consistency Cronbach’s alpha of 0.86 for the challenge items and 0.73 for the hindrance items (LePine, et al., 2004). Cronbach’s alpha (Nunnally & Bernstein, 1994), a measure of internal consistency, was .85 for this study and corrected item total correlation ranged from .311 to .710.

Survey of Perceived Organizational Support (SPOS)

The Survey of Perceived Organizational Support is a unidimensional measure of perceived organizational support. The 8-item shortened Survey of Perceived Organizational Support (SPOS) developed by Eisenberger, Huntington, Hutchinson and Sowa (1986) uses a 6-point Likert format ranging from 0 indicating “strongly disagree” to 6 indicating “strongly agree” to assess the extent that employees perceive that an organization values their contributions and cares about their well-being. A single SPOS score is obtained. Possible scores range from 0 to 48, with higher scores indicating perceived organizational support. Four of eight items were reversed scored. Cronbach’s alpha (Nunnally & Bernstein, 1994), a measure of

internal consistency, was .88 for this study and corrected item total correlation ranged from .542 - .732.

Throughout this research, the total scale mean score for the UWES, Challenge-Hindrance Stressor Scale and Survey of Perceived Organizational Support were used in the correlation and regression analyses for the related research question. Mean scores were work engagement 5.47 [SD, 0.77], challenge and hindrance 3.30 [SD, 0.70] and POS 4.20 [SD, 0.96]. Main analysis examined the relationship between the dependent variable work engagement (WE) and the independent variables work stressors (WS) and perceived organizational support (POS). Data were received as a spss.sav file from SurveyMonkey and Statistical Package for Social Sciences (SPSS) IBM 20 statistical software program was used for analysis. Data were reviewed for accuracy of entry and the assumptions of regression analysis as outlined by Tabachnick and Fidell (2007).

Pearson's correlation coefficients for predictor variables and dependent variables are presented in Table 4.4. A significant, positive correlations was found between UWES and SPOS variables ($r(94) = .42, p < .001$). The results suggest that front line nurse managers with higher perceived organizational support have increased work engagement. A significant negative correlation was found between work engagement and work stressors ($r(96) = -.325, p < .001$). The results suggest that increased work stressors decrease FLNMs' work engagement. A significant negative correlation between work stressors and SPOS ($r(94) = -.433, p < .000$) was found. FLNM with higher work stressors also report lower SPOS. All variables were significant at the 0.01 level (2-tailed).

Table 5*Pearson's Correlation Coefficients for Variables (p value)*

Variable	WE	WS	POS	n
Work Engagement	1.00	-.325**	.419**	97
Work Stressors	-.325**	1.00	-.433**	97
Perceived Organizational Support	.419**	-.433**	1.00	97

Note. WE=Work Engagement. WS=Work Stressors. POS=Perceived Organizational Support. n=number of participants. **Correlation significant at the 0.01 level (2-tailed).

Research Question

What is the relationship between work stressors and perceived organizational support and the work engagement of the front line nurse manager?

Hypothesis Testing

Regression Analysis

The variables of work stressors, perceived organizational support and work engagement were computed. Residual analysis was performed to search for violations of necessary assumptions in regression: linearity, equality of variance, independence of error, normality and collinearity. An alpha level of $p < .05$ was used for all tests of significance. The assumptions for the multiple linear regressions were tested through Durbin-Watson test, tolerance, residual scatterplots and standard residual values examinations. The residuals were observed not to deviate from a normal distribution, were constant in variance, and were not correlated with the independent variables. The extent of multicollinearity was assessed through examination of the tolerance. This analysis revealed that none of the independent variables extracted for the

regression model were linear combinations of the other independent variables. Therefore, the residual analysis indicated that none of the necessary assumptions of linear regression were violated. Bivariate statistics and multiple linear regression analyses were used to test the following hypotheses.

Hypotheses

H1: Front line nurse managers with increased work stressors will have lower work engagement.

A simple linear regression was calculated to predict work engagement (UWES) based on work stressors. A Pearson product moment correlation coefficient was computed for work engagement and the independent variable of work stressors. The relationship between UWES and the predictor work stressors were significant. Analysis of residual plots did not identify outliers. A significant regression equation was determined ($F(2, 91) = 11.41, p < .001$) with an *increased* R^2 of .200. Two and half percent of the variance in work engagement is accounted for by work stressors.

The variable Work Stressors was divided into challenge and hindrance stressors subscales. A Pearson product moment correlation coefficient was computed for work engagement and the subscales of challenge work stressors and hindrance work stressors. Challenge and hindrance subscales had almost exactly equal statistically significant negative correlations to work engagement.

Table 6

Pearson's Correlation Coefficients for Work Engagement and Work Stressor Subscales (p value)

		Utrecht Work Engagement Scale	Challenge Stressor Subscale	Hindrance Stressor Subscale
Utrecht Work Engagement Scale	Pearson Correlation	1	-0.273**	-0.264**
	Sig. (2-tailed)		.006	.008
	N	97	97	97
Challenge Stressor Subscale	Pearson Correlation	-0.273**	1	0.436**
	Sig. (2-tailed)	.008	.000	
	N	97	97	97
Hindrance Stressor Subscale	Pearson Correlation	-0.264**	0.436**	1
	Sig. (2-tailed)	.008	.000	
	N	97	97	97

** . Correlation is significant at the 0.01 level (2-tailed).

H2: Front line nurse managers with increased perceived organizational support will have higher work engagement

A multiple linear regression was calculated to predict work engagement based on perceived organizational support. A Pearson product moment correlation coefficient was computed for work engagement and the independent variable of perceived organizational support. The relationship was significant for higher work engagement between UWES and the predictor perceived organizational support in the FLNM. Analysis of residual plots did not identify outliers. A significant regression equation was determined ($F(1,92)= 19.55, p < .001$)

with a R^2 of .175. Seventeen and half percent of the variance in work engagement is accounted for by perceived organizational support. FLNM demonstrated higher work engagement with increased POS. Examination of the regression coefficient reveals that perceived organizational support has a statistically significant impact on work engagement ($B = .419$, $t = 12.17$, $p = .000$) (partial, .343).

H3: Perceived organizational support will moderate the relationship between work stressors and work engagement. Specifically, higher perceived organizational support buffers the effect of work stressors on work engagement.

A linear multiple regression analysis was conducted in order to determine the extent to which work stressors and perceived organizational support predict work management in FLNM. The analysis also explored a possible interaction between work stress and perceived organizational support, to determine whether perceived organizational support moderates the relationship between work stressors and work engagement. In the linear regression reported in Table 4.5, perceived organizational support and work stressors were entered into the analysis first, followed by the interaction term. In this regression, none of the steps yielded a significant model. The change in R^2 value for the interaction term was small, indicating that even if the model was significant, an interaction does not exist between perceived organizational support and work stressors in the prediction of work engagement. A non-significant regression equation was determined ($F(3,93) = 7.60$, $p < .001$) with a R^2 of .202. The unstandardized regression coefficient (b) for the interaction was .205 ($t[93] = .454$, $p = .651$).

Table 7*Regression Statistics for Predictors and Interaction on Work Engagement*

Variable	B	Std Error	β	t	Sig.	Zero-order	Partial	Part
Model 1 ($R^2=.200$)								
WS	-.192	.114	-.176	-1.692	.094	-.324	-.175	-.159
POS	.277	.084	.343	3.295	.001	.419	.326	.309
Model 2 ($R^2=.202$)								
WS	-.401	.474	-.367	-.846	.400	-.324	-.089	-.080
POS	.127	.340	.158	.375	.709	.419	.039	.035
Int_POSxWS	.048	.105	.205	.454	.651	.084	.048	.043

Note. WS=Work Stressors. POS=Perceived Organizational Support.

H 4: Older (chronological age) front line nurse managers will report higher work engagement.

A Pearson's correlation coefficients were conducted to assess the relationship between age and work engagement in FLNMs. There was no significant relationship noted ($r(95) = .007$, $p < .946$). A non-significant regression equation was determined ($F(2,97) = .228$, $p < .769$) with a R^2 of .005. Age was not a predictor for work engagement in this study.

Additional Analysis

Relation of Salary (Benefits) Satisfaction and Intention to Stay. For this study, satisfaction with salary was significantly negatively related to the Hindrance stressors subscale [$F(4,93) = 3.102$, $p = .019$]. Average Hindrance stressor scores rose as dissatisfaction with salary increased. Though, salary (benefits) satisfaction was unrelated to work engagement [$F(4,93) = 1.286$, $p = .281$], to perceived organizational support [$F(4,93) = 2.198$, $p = .075$] or to challenge stressors, [$F(4,93) = 2.253$, $p = .069$].

It was also determined that intention to stay in the current nursing position for one year was also related to hindrance stressor subscale, $t(97) = -2.303$, $p = .023$, with those intending to

stay reporting a lower average Hindrance scores ($M=2.78$, $SD=.78$) compared to those who did not intend to stay ($M=3.36$, $SD=.86$). Furthermore, intention to stay in the current nursing position for one year was related to work engagement, $t(98)=2.834$, $p=.006$, with those intending to stay reporting a higher average work engagement ($M=5.55$, $SD=.72$) compared to those who did not intend to stay ($M=4.88$, $SD=.83$).

Education level and demographics. Chi-square analyses using GraphPad software (2012) were conducted with alpha set at .05. Participants who are well educated (Master's degree or higher), are significantly more likely to be working in an academic medical center (63.8% versus 29.4%) and community teaching hospital (10.0% versus 5.9%), $\chi^2=15.07$, $p=.001$. Participants were also significantly more likely to be working in a facility with more than 500 beds (38.8% versus 17.1%), $\chi^2=12.28$, $p=.031$, but less likely to work in pediatrics (1.3% versus 8.6%), $\chi^2=3.89$, $p=.049$.) or operating room (1.3% versus 11.4%), $\chi^2=6.07$, $p=.014$) nursing units. A Chi-square analysis also revealed that well educated participants are significantly more likely to report they are immersed in work every day (work engagement) (20.6% versus 12.9%), $\chi^2=10.46$, $p=.033$.

Demographic comparison of included and excluded participants. Since study participants were well educated and had significant POS and work engagement, a comparison of the included and excluded study participants was done. A t-test conducted on excluded ($M=48.2$, $SD=8.76$) and included ($M=47.76$, $SD=8.92$) participants in regards to age found no significant difference in scores between the groups $t(110)=.223$, $p = 0.824$.

Crosstabs/Chi-square analyses were used to determine if this sample's demographic status of the included participants demographics were statistically significantly different from excluded participants on the study variables. Only two significant findings were discovered. The excluded

participants (28.6%) were significantly more likely than the included (10.4%) to work in an outpatient setting. $X^2 = 4.811$, $df = 1$ $p = .028$.

Table 8***Crosstabs/ Chi Square Statistics for Demographics and Work Engagement***

		Crosstab			
		Excluded from analysis			
		included	excluded	Total	
Type of specialty units managed (check one or more)	Not outpatient	Count	86	15	101
		% within Excluded from analysis	89.6%	71.4%	86.3%
	Outpatient services	Count	10	6	16
		% within Excluded from analysis	10.4%	28.6%	13.7%
Total		Count	96	21	117
		% within Excluded from analysis	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	4.811 ^a	1	.028		
Continuity Correction ^b	3.396	1	.065		
Likelihood Ratio	4.089	1	.043		
Fisher's Exact Test				.039	.039
Linear-by-Linear Association	4.770	1	.029		
N of Valid Cases	117				

a. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 2.87.

b. Computed only for a 2x2 table

Another finding found was those excluded (75%) were more likely than those included (11.5%) to report they rarely “forget everything else around me when working”, $X^2 = 14.942$, $df = 6$, $p = .021$. In other words the included participants are more likely to be in a flow state at work (work engagement) than the excluded.

Table 9

Chi Square / Crosstabs Statistics for Demographics and Work Engagement

Chi-Square

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14.942 ^a	6	.021
Likelihood Ratio	12.339	6	.055
Linear-by-Linear Association	1.268	1	.260
N of Valid Cases	100		

a. 9 cells (64.3%) have expected count less than 5. The minimum expected count is .12.

Table 9*Continued Crosstabs Statistics for Demographics and Work Engagement*

Crosstab

Item	Answer	Count	Included	Excluded	Total
When I am working, I forget everything else around me	Never (0)	Count	3	0	3
		% within excluded from analysis	3.1%	0%	3.0%
	Almost never (a few times a year or less) (1)	Count	3	0	3
		% within excluded from analysis	3.1%	0%	3.0%
	Rarely (once a month or less) (2)	Count	11	3	14
		% within excluded from analysis	11.5%	75.0%	14.0%
	Sometimes (a few times a month) (3)	Count	17	0	17
		% within excluded from analysis	17.7%	0%	17.0%
	Often (once a week) (4)	Count	27	0	27
		% within excluded from analysis	28.1%	0%	27.0%
	Very often (a few times a week) (5)	Count	25	0	25
		% within excluded from analysis	26.0%	0%	25.0%
	Always (every day) (6)	Count	10	1	11
		% within excluded from analysis	10.4%	25.0%	11.0%
TOTAL		Count	96	4	100

Crosstabs/chi-square analysis revealed no statistically significant differences between the excluded and the included data then discussed. Most importantly there were no differences in work engagement, work stressors, or perceived organizational support between the two groups.

Summary of Results

In response to this study's research question and hypotheses, this chapter presented quantitative findings from a convenience sample of 97 front line nurse managers. Statistically significant findings were demonstrated for the relationship of work engagement, perceived organizational support and work stressors. Participants identified that perceived organizational support made a significant moderate contribution to FLNM work engagement. Work engagement decreased when work stressors were high. But perceived organizational support did not moderate the relationship between work engagement and work stressors. Age was not related or a predictor for work engagement in this sample. The linear regression and correlation only control for linear associations between predictors. Causality cannot be determined in this study. Additional analysis included education and work engagement and a comparison of included and excluded participant's demographics with study variables. Chapter V consists of a discussion of these quantitative results.

Chapter V

Discussion

Overview

The purpose of this research study was to examine the relationship between the dependent variable work engagement and the independent variables work stressors and perceived organizational support. It was hypothesized that perceived organizational support would moderate the relationship between work engagement and work stressors. These relationships were tested utilizing multiple linear regression with self-reported data collected via an online survey from a convenience sample of front line nurse managers (n= 97) members of the AONE organization and the tri-state area surrounding New York. There is currently little empirical evidence to link work engagement with work stressors and perceived organizational support in front line nurse manager (FLNM).

Descriptive correlational design using electronic surveys of work engagement (UWES, 1999), work stressors (Challenge-Hindrance Stressor Scale, 2000, 2004) and perceived organizational support (SPOS, 1986) were utilized. This chapter focuses on study findings and interpretations. Three areas of discussion are presented including: (1) background, (2) summary of study research findings for each hypothesis and (3) conclusions. The study provides inferences about the relationships among these variables and implications for FLNM work environment and retention.

Background

Front line nurse managers are the linchpin between executive leadership and direct care providers. They are the key drivers for quality and patient safe care. The ability to successfully foster engagement among front line nurse manager enhances the retention of these nurse leaders,

as well as promoting staff nurse satisfaction and a healthy work environment. Effective nursing leadership has increasingly been linked to quality patient safety goals and outcomes (Institute for Healthcare Improvement [IHI], 2010; Institute of Medicine [IOM], 2004, 2010; Laschinger & Wong, 2006). The front line nurse manager who positively influences the work environment and fosters staff organizational commitment facilitates unit performance and enhances the organization's competitive advantage (McGuire & Kennerly, 2006).

The aim of this study was to explore the relationship between front line nurse manager work engagement, work stressors and perceived organizational support (POS). This study found a significant positive correlation between perceived organizational support and work engagement. There was a moderate significant negative correlation between work stressors and work engagement. Regression analysis demonstrated that both work stressors and perceived organizational support produced variance (20%) in work engagement. Perceived organizational support did not moderate the relationship between work stressors and work engagement. Age of the FLNM was not a correlate of and did not have a significant effect on the variables presented.

Summary of Study Findings

This section of chapter five presents a discussion of the study findings. Each of the hypotheses will be presented followed by an interpretation of the results related to the literature review.

Work Engagement

On average, frontline nurse managers in this study reported they experience work engagement several times a week (mean score 5.47 [SD, 0.77]), which was much higher than samples of business managers (4.22 [SD, 1.00]) (Schaufeli & Bakker, 2004) and intensive care nurses working in the United States (4.00 [SD 0.88]) (Lawrence, 2011). Front line nurse manager

intention to stay in the current nursing position for one year was related to engagement, with those intending to stay reporting a higher average work engagement compared to those who did not intend to stay. This high level of work engagement suggests that this sample of FLNM consider their work to be meaningful, and they possessed sufficient personal and job resources to be productive and remain in their present nurse manager position. (Bakker & Demerouti, 2008; Baker, et al., 2007) indicating satisfaction with their role and with the organization overall.

Work Stressors and Work Engagement

The first hypothesis examined was: Front line nurse managers with increased work stressors will have lower work engagement.

The FLNMs in this sample (n=97) experienced work stressors in their work role. The total Challenge and Hindrance Stressor Scale mean score for this sample was 3.45 out of 5.0 with a standard deviation of 0.73. These FLNM in the present study had similar results as reported in sample of United States managers (Cavanaugh, et. al., 2000); administrative staff (Boswell et. al., 2004) and college students (LePine, et.al. 2004). Front line nurse managers reported challenge stressors means to be greater than hindrance stressors means. They reported the challenge stressors “the number of projects” (mean =3.8) and “allotted amount of time to accomplish tasks” as the largest stressors in their role (mean= 3.7). Though, when tested challenge and hindrance subscales had almost exactly equal statistically significant negative correlations to work engagement. The data analysis showed an inverse relationship between work stressors and work engagement. As work stressors increased in FLNM, work engagement lowered. Work stressors was a predictor of decreased work engagement in this research ($R^2 = 0.025$). As theorized, this population of FLNMs, work stressors whether challenge or hindrance negatively influences their work engagement. Hindrance job demands increased as

dissatisfaction with salary increased. Those who did not intend to stay reported increased hindrance stressors/ demands. How the FLNM responds to those job demands is reflected in their work engagement (Demerouti & Bakker, 2011; Demerouti, Bakker, Nachreiner & Schaufeli, 2001; Salanova et al., 2005; Schaufeli & Bakker, 2004). The limited variance predicted by work stressors on work engagement suggests other factors such as environmental or leadership style, may impact the FLNM work engagement therefore role success and retention. Further exploration is needed to explain the larger portion of variance that was not accounted for in this study.

Perceived Organizational Support and Work Engagement

The second hypothesis examined was: Front line nurse managers with increased perceived organizational support will have higher work engagement.

The total Survey of Perceived Organization Support (SPOS) mean score for this sample was 4.22 out of 6 with a standard deviation of 0.96. Perceived organizational support (POS) has a positive significant relationship with work engagement and was a predictor of work engagement in this research. FLNM with increased perceived organizational support had higher work engagement in this study. All components of organizational support were important and related to FLNM work engagement. The value an organization places on FLNM's work was shown in two especially strongly correlated items for perceived organizational support. These were the organization values my contribution to its well-being and the organization takes pride in my accomplishments at work ($r(97) = .558, p < .000$). Results from this study were clear that POS was a significant source of support connected to FLNM work engagement.

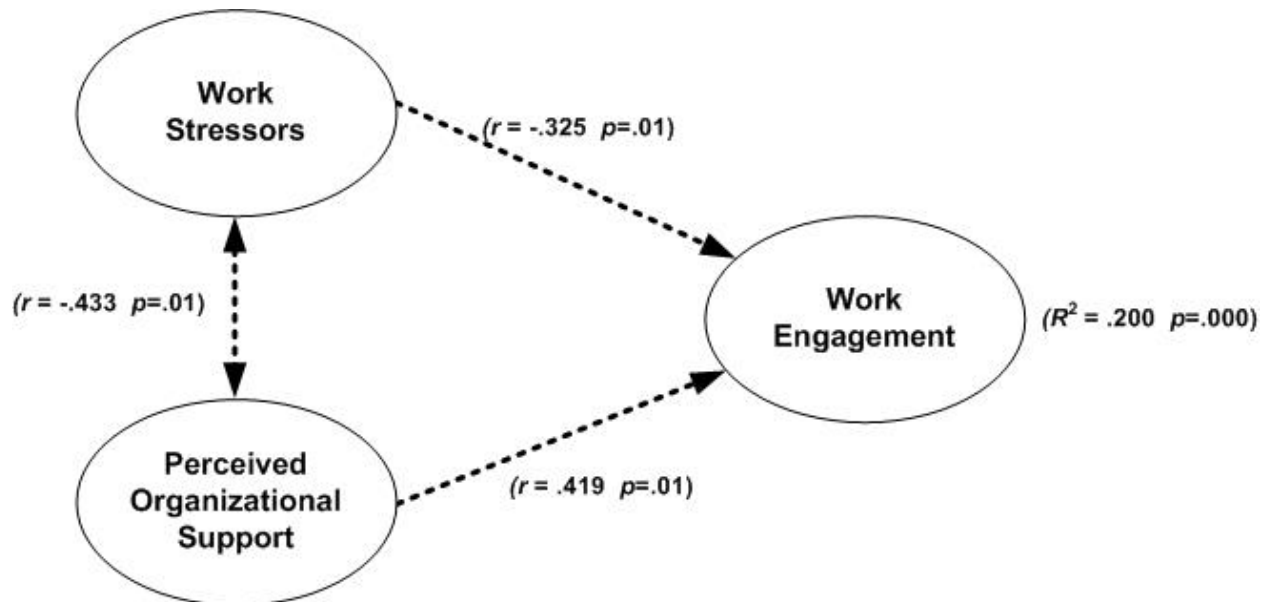
Perceived organizational support contributed to employees' feelings of value and worth, thus enhancing work engagement (Eisenberger et al., 2002) and retention. Organizational POS

includes communication, contributions that are valued, a visible relationship and ongoing education opportunities for role needs. These FLNMs voiced that the organization valued their contributions and took pride in their accomplishments at work. Organizational resources such as POS from executive management could stimulate FLNM personal growth, learning, and development (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007). Just as nursing unit staff needs accessibility and visibility of their nursing leaders, the FLNMs need these organizational support elements from senior administrators. Higher levels of perceived organizational support encourage and promote greater fulfillment to achieve organizational goals (Laschinger, Purdy, Cho & Almost, 2006) as well as high levels of performance (Mackoff & Triolo 2008a,b).

The availability of the front line nurse manager's supervisor to listen, provide guidance, and provide clear expectations and feedback are important factors contributing to nurse manager retention and the ability to manage challenging workloads (Brown, Fraser, Wong , Muise, & Cummings, 2013; Laschinger, Purdy, Cho, and Almost, 2006; Parsons and Stonestreet, 2003). Front line nurse managers in this study were engaged and intend to stay in their current nursing position. This study's finding supported earlier work by other researchers (Eisenberger, et al., 1986 and Laschinger, et al., 2006). Shirey, McDaniel, Ebright, Fisher, and Doebbeling (2010) found that enhancing nurse manager coping behaviors led to increased ability to manage their work stressors through supportive relationships. When employees perceive high levels of support, greater efforts are made to attain organizational goals. The attributes that influenced these FLNM's perceptions of support were 'feeling valued' and 'cared about,' and 'valued their contributions'. According to Bakker and Demerouti (2008; Bakker, et al., 2007), work

engagement is built through the availability of job resources and manageable job demands. Higher perceived organizational support is a job resource that increases work engagement.

Figure 5.1 Demonstrated Relationships of Work Stressors, POS & Work Engagement



Perceived Organizational Support as a Moderator

The third hypothesis examined was: Perceived organizational support will moderate the relationship between work stressors and work engagement. Specifically, higher perceived organizational support buffers the effect of work stressors on work engagement as measured by linear regression as an interaction.

POS was determined not to be a moderator in the relationship between work engagement and work stressors. This was not an anticipated finding. In this population of FLNM, work stressors could increase but POS was not used to buffer the relationship between work stressors

and work engagement. POS predicted a small variance (17.5%) in work engagement. There are possible other factors that explain further variance in the independent variable. Perceived organizational support increases work engagement of these FLNMs but does not influence the work stressors that are part of the FLNM position.

Also, a significant moderately negative relationship between work stressors and perceived organizational support level was identified, suggesting that increased work stressors was associated with decreased perceived organizational support. While there was no suggestion that POS moderated FLNM work stressors, the amount of POS variance in work engagement could have been affected by this negative relationship. This significant finding requires further study to examine the relationship between perceived organizational support and work stressors and its implication on FLNM work engagement.

Age and Work Engagement

The fourth hypothesis examined was: Older (chronological age) front line nurse managers will report higher work engagement. Older age of the FLNM in this study was not significant correlate of work engagement, work stressors or perceived organizational support. This may be due to increased age ($M = 47.7$ years, $SD = 8.9$), and years of nursing management ($M = 11.1$ years, $SD = 8.1$), as work engagement was not correlated with both age ($r = -.007$, $p = .946$) and intent to remain in role for next 12 months ($r = -.041$, $p = .691$). This finding was not congruent with prior research. A weak but significant relationship of age and work engagement was found in studies by both Simpson (2009) and Schaufeli, Bakker, and Salanova (2006). Rhoades & Eisenberger (2002) meta-analysis of perceived organizational support also did not support this relationship of age and work engagement. The lack of variance of age in work engagement suggests that age did not influence their work engagement. Age brings with it

increased experiences, insight and maturity that could potentially increase a FLNM ability to handle their role.

Additional Analysis

In this study, participants were asked highest level of nursing education that they achieved but no discrimination was made between actual degree content or on-site training, i.e., nursing, management, or other fields. It is possible that that the area of preparation or training could exert a difference in FLNM comfort with their position and could alter POS, work stressors and engagement. Further study on whether educational level and POS explain variance in work engagement is warranted.

This highly educated sample was normally distributed but had a disproportionate number with Master's degree or higher and were more likely to work in an academic medical center. These well-educated FLNMs were also significantly more likely to report they are immersed in work every day (20.6% versus 12.9%), $\chi^2=10.46$, $p=.033$. The higher level of education could have influenced the relationship of work stressors and POS on work engagement.

Theoretical Implications

In this study, two significant multivariate correlations were demonstrated. Work engagement and perceived organizational support were positively related. Work stressors and work engagement were negatively related. Both of these findings were consistent with the proposed theoretical model and previous literature. The Job Demands–Resources (JD–R) model (2001, 2007) is a theoretical stress and motivation framework that can be used to assess influences in the work environment affecting role and performance outcomes. The main assumption of the Job Demands–Resources (JD–R) model (Bakker & Demerouti, 2007; Demerouti, Bakker, Nachreiner, & Schaufeli, 2001) is that every occupation has its own specific

risk factors associated with job-related stress. These factors can be classified in two general categories (i.e. job demands [challenge-hindrance stressors] and job resources), thus constituting an overarching model that may be applied to various occupational settings (work environments), *irrespective* of the particular demands and resources involved (Demerouti & Bakker, 2011). In addition, the model specifies how demands and resources interact, and predict important organizational outcomes such as work engagement. Although job demands are not necessarily negative, they may turn into job stressors when meeting those demands requires huge effort from which the employee fails to recover adequately (Demerouti & Bakker, 2011). This can lead to FLNM's decreased engagement and subsequent loss of key leadership expertise at the point of care affecting the work environment.

According to Bakker and Demerouti, 2008; Demerouti, 2012), work engagement is built through the availability of job resources and manageable job demands. Job characteristics identified in the manager and staff nurses' work engagement literature included autonomy, rewards, task variety, (Koyuncu et al., 2006; Salanova & Schaufeli, 2008; Schaufeli et al., 2008), and perceived organizational support (Kinnunen et al., 2008, Laschinger, et al., 2006). Additionally, the lack of job resources (Freeney & Tiernan, 2009) and the presence of high workloads (Rothman & Joubert, 2007) contributed to reduced work engagement. Provost's (2006) study reported that nurse manager's job satisfaction was related to workload, administrative support, compensation, perceived organizational support, ability to affect change, autonomy, organizational structure and support. Strong leadership is essential for healthy health-care work environments, for health-care providers and for ensuring quality patient care (Brown, et al., 2013).

This model holds true for nursing leadership for this sample of FLNM. Nurse managers have multiple job demands. These job demands include time pressures, workload and core measures and regulations. Job resources include job control, support from senior leadership and participation in decision making. Increased organizational support predicted increased work engagement in this study. Increased work engagement in FLNMs, enables them to manage job demands and resources thus promoting a work environment that delivers safer and high quality care.

Relationship between Work Stressors, Perceived Organizational Support and Work Engagement

The study research question of relating to work stressors, perceived organizational support on front line nurse manager work engagement was measured by correlations and regression models using the mean scores on the UWES, Challenge-Hindrance Scale and SPOS. This is the first study to examine the relationship between these variables in a sample of front line nurse managers. The findings from this present study support a positive relationship between perceived organizational support relationship and work engagement and an inverse relationship between work stressors and work engagement and. The FLNM who had high total SPOS mean scores tended to have increased work engagement mean scores. Previous studies have supported a positive relationship between perceived organizational support and work engagement (Kittredge, 2010; Laschinger, et al., 2006; Rhoades and Eisenberger, 2002, Zastocki, et al., 2010).

The scope of practice for the front line nurse manager has evolved significantly in response to changes in the healthcare industry with the American Care Act, *Hospital Consumer Assessment of Healthcare Providers and Systems (HCAPS)* and Press Ganey performance

surveys. Nurse managers supported by their senior leadership in turn demonstrate support toward their own staff (Espinoza, et al., 2009). A satisfied and engaged staff leads to improved retention, safe clinical practice and a healthy work environment. Chapter V included a discussion of the study findings and interpretation, theoretical perspective related to study variable and a synopsis of the chapter. The following Chapter VI consists of a discussion of implications for education and practice, future research and conclusions.

Chapter VI

Implications and Recommendations

Front line nurse manager directly oversee the largest employment population in healthcare organizations as well as maintain responsibility and accountability for the operations of individual patient care areas (Torres, 2009). This study described the relationship between perceived organizational support, work stressors and work engagement in a sample of front line nurse managers. Statistically significant study findings were revealed. The following conclusions were made regarding the FLNM sample studied.

1. A positive direct relationship exists between work engagement and perceived organizational support.
2. A direct negative relationship exists between work engagement and work stressors.
3. Work Stressors and perceived organizational support together explained 20% of the variance in work engagement.
4. Perceived organizational support did not moderate the relationship between work stressors and work engagement.
5. Chronological age of the participants was not related to work engagement

The FLNMs in this study are vigorous, absorbed and dedicated to their role, staff and patients. Increased perceived organizational support enhances that relationship. A fully engaged FLNM who has organizational support provides leadership and disseminates support to their staff. Organizational behaviors that support opportunities for communication, high visibility and verbalized commitment to quality of patient care help nurse managers promote positive safety outcomes (Cummings, 2004). When the FLNM is supported by senior leadership everyone benefits. Work engagement of the FLNM plays an important role in facilitating the

organization's goals and is instrumental in supporting and promoting a healthy work environment.

The findings of this study are relevant for nursing leadership practices today. This was the first study to explore the relationship between work engagement, perceived organizational support and work stressors of the front line nurse manager (FLNM). Front line nurse managers are key components in healthcare organizations and yet, represent a vulnerable population for future nursing shortage concerns. Work environments built upon strategies to enhance perceived organizational support promote the retention of skilled, engaged and productive front line nurse managers and nursing staff. Perceived organizational support strategies include visibility, accessibility, communication, and valued contributions. Highly engaged and supported FLNMs are more likely to rise to the organizational challenges and be more resistant to work stressors (Duffield, 2011). Organizations are dependent on front line nurse managers to provide leadership that fosters quality care. The strong relationship between perceived organizational support and work engagement is also important for recruitment of new nurse managers as current ones move into retirement. This chapter presents the investigator's critique of the study, implications for nursing education, practice, future research recommendations, as well as study conclusions.

Critique of the Study

Several limitations should be considered when interpreting the findings of this study. A convenience sample (n=97) was used with data collected through a self-report online survey and may not be representative of all front line nurse managers; therefore the generalizability of the finding may be limited. The participants were primarily female, which is reflective of the nursing profession (Auerbach et al., 2011; NSSRN, 2008).

Second, the original sample population of AONE membership response was limited. This participant group was contacted through the U.S. mail to the work addresses provided to the AONE organization. Limited response could be related to method used to recruit participants from this group. No distinction was made on the demographic sheet for AONE membership before the IRB was amended. Therefore it cannot be determine how many participants in the final analysis were AONE members.

The application to the IRB was amended to expand the recruitment of participants (Appendix F). With addition of participants outside of the AONE for this study, a large number of participants came from New York ($n=45$). The average number of FTE's was significantly lower for participants who work in New York ($M=48.5$, $SD=23.7$) compared to those who work in all other states ($M=64.6$, $SD=46.9$), $t(100)=2.127$, $p=.036$. Also, the average level of perceived organizational support was significantly higher for participants who work in New York ($M=3.99$, $SD=0.589$) than other states ($M=3.72$, $SD=0.567$), $t(95)=2.294$, $p=.024$. It is possible that a disproportionate number of participants working in New York may be a source of bias in the findings and a threat to generalizing to the whole population.

Third, because the sample size was small, there was increased potential not to achieve significance in the correlations. Studies with smaller sample sizes may not be able to achieve the power required to detect a relationship or effect (Polit & Beck, 2008). Lastly, the Challenge-Hindrane Stressors Scale has not been used before within a population of registered nurses or nurse managers. The instrument demonstrated more than adequate reliability (0.85) in this new research group. In addition, the instrument correlated with all study variables.

Implications for Current Practice

Implications for Education

The implications for nursing education are presented along with recommendations for future study. The AONE believes that education has a significant impact on the knowledge and competencies of the nurse manager and recommends a minimum of Bachelor degree with a preference for a Master degree (Council on Graduate Education for Administration in Nursing [CGEAN], 2011). Fifty-eight percent FLNM of this study were master or doctorate prepared as compared to twenty percent in 2008 NSSR.

Front line nurse managers' education level was not a significant influence on nurse managers' work engagement in this study, though years of nursing experience was related to work engagement. Front line nurse manager participants with a master's degree or higher was significantly more likely to report they are immersed in work every day and increased perceived organizational support. The availability and support for educational programs including educational degree advancement, continuing education and certification warrants further study in relationship to FLNM work engagement. Perhaps these job resources available from executive leadership are more important than personal resources in overcoming job demands and building work engagement.

A more highly educated nursing workforce is critical to meeting the nation's nursing needs and delivering safe, effective patient care (AACN, ANA, AONE, and National League of Nursing [NLN], 2010). Nurse leaders with graduate degrees are also more likely to be included in executive roles and policy or governing bodies where they can contribute their expertise grounded in actual clinical care to improve healthcare systems (CGEAN, 2011). Nurse managers must set the standard for healthy work environments for staff, which in turn, provides for quality outcomes for the institution.

Implications for Practice

Retention

The important relationship between work stressors, perceived organizational support and work engagement should inform nursing leadership regarding the retention of nurse managers. Nurse executives must invest in the nurse manager role. Front line nurse managers (FLNMs) are the organizational leaders that provide the connecting layer, as well as the buffer, between staff nurses and executive management in acute care hospitals. Their scope of responsibility includes fostering healthy work environments that support and sustain the quality, safety and costs for the organization (American Organization of Nurse Executives [AONE], 2008; American Nurses Association [ANA], 2004; Sherman & Pross, 2010). Perceived organizational support is essential for FLNM to manage their responsibilities. According to the Hodes Aging Workforce Study (2009), 55% of nurse manager respondents, will be retiring between 2011 and 2020. FLNMs in this study confirmed that hindrance work stressors were more related to salary dissatisfaction and intent to leave their position. Since nurse managers are key components in healthcare organizations, this will create a population ripe for future nursing leadership shortages.

Front line nurse manager turnover, vacancy and retirement are costly not only in terms of finances but in succession planning as well. In many organizations, little attention is being paid to succession planning and the development of emerging nurse leaders at the point of care (Balogh-Robinson, 2012; Stichler, 2008). Significantly expanded nursing manager responsibilities and a larger span of control (2 or more nursing units and FTEs) have been seen in practice and documented in the literature (Brown, et al., 2013; Duffield, 2011; McCutcheon, et al., 2009) as well as in this study. Front line nurse managers working in New York had increased POS but managed fewer full time equivalents than in other states. Expanded nursing manager

responsibilities can also lead to decreased manager retention. Larger span of control needs further study in relation to FLNM work engagement.

Education and Work Environment

At the core of the nurse manager development is the understanding of the fundamentals of the nursing practice environment – one that is supported by shared governance, interdisciplinary collaboration, leadership, quality, safety, professional development and work-life balance (Frederickson & Nickitas, 2011). American Organization of Nurse Executives *Essential of Nurse Manager Orientation* (2008) or an advanced education and competencies in nursing leadership and management that would enhance the human resource evidence based knowledge required for this role and support those critical leadership decisions at the point of care are highly recommended. Practical education related to group dynamics and transactional leadership styles is also recommended. Also management concepts such as leadership, conflict resolution, evidenced based practice need to be added to existing bachelor and master programs as well as practicum experience with an experienced FLNM.

While there are standardized orientation schedules for a staff nurse, front line nurse manager usually learn with “on the job” training. As nurse manager roles and working environments continue to evolve, ongoing research is needed to decipher organizational attributes affecting work engagement for nurse managers. High quality health care depends on the competency of leadership (Sherman, et al., 2010). Nurse leader development is a necessity, particularly since front line nurse leaders have the greatest impact on unit culture, resources and patient care quality by supporting effective and safe working environments. Research driven leadership curriculum is extremely important, in addition to interpersonal, management, mentoring and inter-professional skills (Frederickson & Nickitas, 2011).

Implications for Further Research

This is the first study to explore the relationship of work engagement, work stressors and perceived organizational support in FLNM. The following are recommendations for future study are:

1. A replication of this study with a larger sample that includes more diversity in age, gender, ethnicity, formal and in-service training and compensation (salary, benefits, etc.) is needed to get a true representation of the nurse manager population.
2. Longitudinal and correlation studies should be conducted to examine UWES and Challenge-Hindrance Stressor sub-scales relationship to work engagement and work stressors.
3. Establish the operational concept of engagement and future research to design and evaluate an intervention program that focuses on fostering engagement in FLNMs.
4. An descriptive correlational study of nurse manager populations in nursing homes, homecare and outpatient settings would add to knowledge of all types of nurse manager's work engagement.
5. A national database specific to nurse manager descriptive characteristics is needed. The NSSRN was last completed in 2008. While this study captures some descriptive data on nurse managers, its main focus is on nurses in general.
6. Skill development in the human resource management attributes required of the position of FLNM such as leadership, conflict resolution, recruiting, interviewing and hiring.
7. The development of organizational structures to promote support of front line nurse manager's leadership.

8. Although the UWES-17, SPOS and Challenge-Hindrance Stressors Scale were effective for this study, mixed methods may also be considered in order to complement quantitative results. A qualitative component would provide greater perspective on what organizational structures are important to front line nurse managers and the effectiveness associated with engagement.

Conclusions

Front line nurse managers who have a balance of organizational support and work engagement facilitate a work environment conducive to a culture of excellence. In turn this healthy work environment promotes quality care, patient safety and staff retention. This FLNM sample aligns with current literature regarding managerial attributes needed to sustain a healthy work environment. Acknowledging the work stressors and providing organizational support to the FLNM will yield a committed workforce in an ever changing work environment. It all begins with the front line nurse manager. It is their leadership that holds the health organization together at the point of care.

This study provided further support for Kahn's (1990) engagement theory and contributes to previous knowledge about the relationships of work engagement with perceived organizational support and work stressors on nursing's organizational and personal outcomes. Front line nurse managers fully engaged can improve their work environment. This can be accomplished by increasing (structural or social) job resources (perceived organizational support), and managing job demands or challenges and decreasing job demands (work stressors). Organizational support can make the FLNM complex environment productive and vital to the organization performance outcomes.

This and other studies using the JD-R model have shown that employees demonstrate the best job performance in challenging, resourceful work environments because such environments facilitate their work engagement (Bakker & Bal, 2010; Demerouti & Cropanzano, 2010; Schaufeli, 2009). This implies that organizations should offer their nurse managers sufficient job resources, including organizational support from senior leadership, education, mentorship support, and organizational management skill development.

These theories of work engagement, work stressors, perceived organizational support, job demands, and resource model in organizational behavior have been developed and validated in the psychological and business sectors, yet we know little about these concepts applicability to nursing or FLNM populations. This is the first study to examine these three concepts in a FLNM sample. Similarly, the differential effect of hindrance and challenge stressors on FLNM performance and patient outcomes is also unexplored. The findings from this study add knowledge about the influence of perceived organizational support and work stressors on front line nurse managers' work engagement and work environment. Implications and recommendations for nursing education, practice and research were provided. It is expected that the findings of this study will encourage senior leadership to implement organizational strategies that facilitate the growth and support in these crucial front line nurse manager roles.

Appendices

Appendix A

Eligibility Criteria

Please answer the following questions to determine your eligibility to participate in a survey about front line nurse manager work engagement. Your time is appreciated.

1. Are you a front line nurse manager in a hospital or academic medical center?

- Yes
- No

2. Have you worked in your position for greater than one year?

- Yes
- No

3. Do you have 24/7 hour responsibility?

- Yes
- No

4. Do you manage 5 or more full time equivalents (FTEs)?

- Yes
- No

Demographic Form for Nurse Managers

The following questions are demographic data and used for analytical purposes. These questions will not be used to identify any individual.

1. What is your gender?

- Male
- Female

2. What is your current age?

Age (in years) _____

3. What is your ethnicity?

- African American
- Caucasian
- Hispanic/Latino
- Non Hispanic
- Asian Pacific
- Native American Indian
- Other

4. Years of nursing experience?

Years _____

Months _____

5. Years of management experience?

Years _____

Months _____

6. What is your highest level of nursing education?

- Associate
- Baccalaureate
- Masters
- Doctorate
- I don't have a nursing degree

7. What is your highest level of non-nursing education?

- Baccalaureate
- Masters
- Doctorate

8. Type of Hospital?

- Academic medical center
- Community teaching hospital
- Community hospital

9. Type of Hospital?

- Not for profit
- For profit

- Federal government
- Non-federal government

10. Facility size

- Fewer than 100 beds
- 100-199
- 200-299
- 300-399
- 400-499
- More than 500

11. Magnet Designated

- Yes
- On journey
- Not at this time

12. In what state do you work?

- Alabama
- Alaska
- American Samoa
- Arizona
- Arkansas
- California
- Colorado
- Connecticut
- Delaware
- District of Columbia (DC)
- Florida
- Georgia
- Guam
- Hawaii
- Idaho
- Illinois
- Iowa
- Kansas
- Kentucky
- Louisiana
- Maine
- Massachusetts
- Michigan
- Mississippi
- Missouri
- Montana

- Nebraska
- Nevada
- New Hampshire
- New Jersey
- New Mexico
- New York
- North Carolina
- North Dakota
- Northern Marianas Islands
- Ohio
- Oklahoma
- Oregon
- Pennsylvania
- Puerto Rico
- Rhode Island
- South Carolina
- South Dakota
- Tennessee
- Texas
- Utah
- Vermont
- Virginia
- Virgin Islands
- Washington
- West Virginia
- Wisconsin
- Wyoming

13. Do you manage more than ONE unit?

- Yes
- No

14. Type of specialty units managed (check one or more)

- Critical care adult
- Neonatal ICU
- Pediatric ICU
- Rehab
- Outpatient services
- Long term care
- Pediatric
- Telemetry
- OR
- OB/GYN
- Medical-surgical

- Psychiatric
- PACU
- ER
- Other (please specify) _____

15. Number of patients in all units that you manage

Number of beds _____

16. Number of nursing FTEs in all units that you manage

Number of FTEs _____

17. Yearly budget for all units you manage

Total yearly budget _____

18. Your satisfaction with compensation (salary, bonus, benefits) in your current manager role

- Highly satisfied
- Satisfied
- Neutral
- Dissatisfied
- Very Dissatisfied

19. Do you plan to stay in your current nursing position for the next 12 months?

- Yes
- No

Appendix C

26. Challenge and Hindrance Stress Scales

Indicate the amount of stress you associate with each of the following items.

	Produces no stress (1)	Produces little stress (2)	Produces stress (3)	Produces above average stress (4)	Produces a great deal of stress (5)
The number of projects and/or assignments I have	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The amount of time I spend at work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The amount of work that must be accomplished in the allotted time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Time pressures I experience	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The amount of responsibility I have	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The scope of responsibility my position entails	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The degree to which politics rather than performance affects organizational decisions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The inability to clearly understand what is expected of me on the job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The amount of red tape I need to go through to get my job done	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The lack of job security I have	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The degree to which my career seems "stalled"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Appendix E

Consent



CUNY UI - Institutional Review Board	
Approval Date:	<u>July 5, 2012</u>
Expiration Date:	<u>March 19, 2013</u>
Coordinator Initials:	<u>S.E.</u>

CONSENT

Anne Marie Simmons is a graduate student in the Department of Nursing at the Graduate Center, CUNY. She is conducting a study about nurse manager work engagement and factors that may affect their work experience, recruitment and retention. You are being asked to participate in a study to examine the relationship of work stressors and perceived organizational support to work engagement in the front line nurse manager. You have been identified as a possible participant because you are a front (first level) line nurse manager who has worked at this level for greater than one year, manage 5 or more full time equivalents (FTEs) and are over the age of 18. You are also being asked to forward this information sheet and flyer with the web based link to other colleagues that are also front line nurse managers. It is anticipated that 200 individuals will participate in this study.

You are being asked to participate in a web based questionnaire via Survey Monkey. The questionnaire will ask you questions regarding your responsibilities, available support and work engagement as a nurse manager. To access the electronic questionnaire you will need to enter the following URL address: (<https://www.surveymonkey.com/s/frontlinemanager>). After you have entered the weblink you will be required to enter the following password, in order to access and answer the study's questions: (the PI will enter the weblink password here, once it is identified). The web based questionnaire can be done at any computer at your own time frame. It will take approximately 20 -25 minutes to complete the questionnaire.

Participation is voluntary and can be withdrawn at any time. This study probability of risk or discomfort is no greater than those ordinarily encountered in daily life. IP address and other identifying information will not be captured. You can choose not to answer any particular question or can decide to discontinue the questionnaire at any time without penalty.

Appendix F

IRB Approval



Human Research Protections Program
Hunter College (CUNY) HRPP Office

DATE: March 20, 2012

TO: Anne Marie Simmons, DNS
FROM: Hunter College (CUNY) HRPP Office

PROJECT TITLE: [315853-2] The Relationship of Work Stressors and Perceived Organizational Support on Front Line Nurse Manager Work Engagement

SUBMISSION TYPE: New Project

ACTION: APPROVED
APPROVAL DATE: March 20, 2012
EXPIRATION DATE: March 19, 2013
RISK LEVEL: Minimal Risk

REVIEW TYPE: Expedited Review
REVIEW CATEGORY: Expedited review category # 7

Thank you for your submission of materials for this project. The University Integrated IRB has APPROVED your research. This approval is based on an appropriate risk/benefit ratio and a project design wherein the risks have been minimized. All research must be conducted in accordance with this approved submission.

The University Integrated IRB has determined that a waiver of documentation of consent has been approved for this research, under 45 CFR 46.117.

Please note that any modifications/changes to the approved materials must be **approved by this IRB prior to implementation**. Please use the appropriate modification submission form for this request.

All **UNANTICIPATED PROBLEMS (UPS)** involving risks to subjects or others, **NON-COMPLIANCE** issues, and **SUBJECT COMPLAINTS** must be reported promptly to this office. All sponsor reporting requirements must also be followed. Please use the appropriate submission form for this report.

This research **must receive continuing review and final IRB approval** before the expiration date of March 19, 2013 . Your documentation for continuing review must be received with sufficient time for the IRB to conduct its review and obtain final IRB approval by that expiration date. Please use the appropriate continuation submission forms for this procedure. PLEASE NOTE: The regulations do **not** allow for any grace period or extension of approvals.

If you have any questions, please contact the Hunter College HRPP Office at (212) 650-3053 or irb@hunter.cuny.edu. Please include your project title and reference number in all correspondence with this committee.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within the City University of New York's records.



Human Research Protections Program
Hunter College (CUNY) HRPP Office

DATE: July 5, 2012

TO: Anne Marie Simmons, DNS
FROM: Hunter College (CUNY) HRPP Office

PROJECT TITLE: [315853-3] The Relationship of Work Stressors and Perceived Organizational Support on Front Line Nurse Manager Work Engagement    

SUBMISSION TYPE: Amendment/Modification

ACTION: APPROVED

APPROVAL DATE: July 5, 2012

EXPIRATION DATE: March 19, 2013

RISK LEVEL: Minimal Risk

REVIEW TYPE: Expedited Review

Thank you for your submission of Amendment/Modification materials for this project. The University Integrated IRB has APPROVED your research. This approval is based on an appropriate risk/benefit ratio and a project design wherein the risks have been minimized. All research must be conducted in accordance with this approved submission.

Please remember that informed consent is a process beginning with a description of the project and assurance of the participant's understanding, followed by a signed consent form(s). Informed consent must continue throughout the project via a dialogue between the researcher and research participant. Federal regulations require that each participant receives a copy of the consent document.

The University Integrated IRB has determined that a waiver of documentation of consent has been approved for this research, under 45 CFR 46.117.

Please note that any modifications/changes to the approved materials must be **approved by this IRB prior to implementation**. Please use the appropriate modification submission form for this request.

All **UNANTICIPATED PROBLEMS (UPS)** involving risks to subjects or others, **NON-COMPLIANCE** issues, and **SUBJECT COMPLAINTS** must be reported promptly to this office. All sponsor reporting requirements must also be followed. Please use the appropriate submission form for this report.

This research **must receive continuing review and final IRB approval** before the expiration date of March 19, 2013. Your documentation for continuing review must be received with sufficient time for the IRB to conduct its review and obtain final IRB approval by that expiration date. Please use the appropriate continuation submission forms for this procedure. PLEASE NOTE: The regulations do **not** allow for any grace period or extension of approvals.



Human Research Protections Program
Hunter College (CUNY) HRPP Office

DATE: March 1, 2013

TO: Anne Marie Simmons, DNS
FROM: Hunter College (CUNY) HRPP Office

PROJECT TITLE: [315853-4] The Relationship of Work Stressors and Perceived Organizational Support on Front Line Nurse Manager Work Engagement

SUBMISSION TYPE: Continuing Review/Progress Report

ACTION: APPROVED
APPROVAL DATE: February 28, 2013
EXPIRATION DATE: February 27, 2014
RISK LEVEL: Minimal Risk

REVIEW TYPE: Expedited Review
REVIEW CATEGORY: Expedited review category # 7

Thank you for your submission of Continuing Review/Progress Report materials for this project. The University Integrated IRB has APPROVED your research. This approval is based on an appropriate risk/benefit ratio and a project design wherein the risks have been minimized. All research must be conducted in accordance with this approved submission.

Please remember that informed consent is a process beginning with a description of the project and assurance of the participant's understanding, followed by a signed consent form(s). Informed consent must continue throughout the project via a dialogue between the researcher and research participant. Federal regulations require that each participant receives a copy of the consent document.

The University Integrated IRB has determined that a waiver of documentation of consent has been approved for this research, under 45 CFR 46.117.

Please note that any modifications/changes to the approved materials must be **approved by this IRB prior to implementation**. Please use the appropriate modification submission form for this request.

All **UNANTICIPATED PROBLEMS (UPS)** involving risks to subjects or others, **NON-COMPLIANCE** issues, and **SUBJECT COMPLAINTS** must be reported promptly to this office. All sponsor reporting requirements must also be followed. Please use the appropriate submission form for this report.

This research **must receive continuing review and final IRB approval** before the expiration date of February 27, 2014. Your documentation for continuing review must be received with sufficient time for the IRB to conduct its review and obtain final IRB approval by that expiration date. Please use the appropriate continuation submission forms for this procedure. PLEASE NOTE: The regulations do **not allow** for any grace period or extension of approvals.

Appendix G
Information Sheet



Information Sheet

CUNY UI - Institutional Review Board	
Approval Date:	<u>July 5, 2012</u>
Expiration Date:	<u>March 19, 2013</u>
Coordinator Initials:	<u>SG</u>

Anne Marie Simmons is a graduate student in the Department of Nursing at the Graduate Center, CUNY. She is conducting a study about nurse manager work engagement and factors that may affect their work experience, recruitment and retention. You are being asked to participate in a study to examine the relationship of work stressors and perceived organizational support to work engagement in the front line nurse manager. You have been identified as a possible participant because you are a front (first level) line nurse manager who has worked at this level for greater than one year, manage 5 or more full time equivalents (FTEs) and are over the age of 18.

Contact will also be through email and word of mouth using a printed recruitment flyer to engage front line nursing managers in medical centers and hospital as research participants. The recruitment flyer will also be sent to you with a request to send the flyer to other front line nurse manager contacts. It is anticipated that 200 individuals will participate in this study.

The questionnaire will ask you questions regarding your responsibilities, available support and work engagement as a front line nurse manager. It will take approximately 20 -25 minutes to complete the questionnaire and demographic form. You may complete the questionnaire in your own time frame. You can return the completed questionnaire in the enclosed stamped and addressed envelope by December 31, 2012.

Participation is voluntary and can be withdrawn at any time. This study probability of risk or discomfort is no greater than those ordinarily encountered in daily life. You can choose not to answer any particular question or can decide to discontinue the questionnaire at any time without penalty.

There are no direct benefits to you. However, participating in this study may increase the understanding of work engagement and the factors affecting the nurse manager's work environment. You may enjoy the opportunity to reflect and comment on your work experiences by participating in this research.

If you choose to participate in the study, to thank you for your time, you will become eligible to receive one of three \$50 randomly drawn gift certificates to Amazon.com. To become eligible for this random drawing you may choose to enter your name and email address at the end of the completed questionnaire. You are still eligible to participate in the raffle even if you withdraw from the study. This personal information, should you choose to provide it, will be used solely for the purpose of the raffle and will be known solely by the Principal Investigator (PI) and sponsor. The PI will maintain all voluntarily submitted contact information in her secure password protected computer and this information will be confidentially discarded immediately after the raffle drawing. Raffle winners will be drawn at the completion of collecting questionnaire responses and winners will be notified by e-mail. Participant names will not be revealed in any reports that result from this research project. Participation may be withdrawn at any time without penalty or loss of benefits.

By completing the questionnaire, you are giving your permission for the investigator to use your information for research purposes. All collected data will be kept in the locked office of

the faculty advisor, to which only the PI and the faculty advisor have access. The data will be stored for a minimum of three years, after which it will be destroyed.

Any questions you have can be answered by the PI, Anne Marie Simmons, Nursing Science (DNS) Doctoral Candidate, Graduate Center- CUNY or her dissertation sponsor Donna Nickitas at dnickita@hunter.cuny.edu. This researcher can be reached at (email) asimmons@gc.cuny.edu or (phone) 212-220-2299. If you have questions about your rights as a participant in this study, you can contact the Hunter College Human Research Protection Program (HRPP) Office at 212-650-3053/hrpp@hunter.cuny.edu.

The information you provide is anonymous. No one will know how you responded to these questions. Please do **not** put your name or other identifying information on the questionnaire to assure anonymity. By returning the instrument you are giving consent. Thank you for your consideration of participation in this study.

CUNY UI - Institutional Review Board
Approval Date: July 5, 2012
Expiration Date: March 19, 2013
Coordinator Initials: *SL*

Appendix H
Recruitment Flyer



**PARTICIPANTS NEEDED FOR
NURSING RESEARCH STUDY**

***Are you a clinical front line nurse
manager in an academic medical
center or hospital?***

***Have you been in your position
for more than 1 year?***

If you are interested in contributing to a Research Study on work engagement and nursing leadership, please go to <https://www.surveymonkey.com/s/frontlinemanager>

As a participant in this research study, you would be asked to *complete a computer web-based survey* of approximately 20 minutes.

In appreciation for your time, you will receive *a chance to participate in a Amazon Gift Certificate Raffle.*

For more information about this study
please contact:
Anne Marie Simmons-
Principle Investigator - Doctoral Student
Graduate Center – City College of New York
Email: asimmons@gc.cuny.edu
or 914-220-2299

Appendix I Scales/ Survey Usage Permission

RE: request to use scale
 Schaufeli, W.B. [w.schaufeli@uu.nl]
 You replied on 11/20/2011 8:28 AM.
 Sent: Sunday, November 20, 2011 3:59 AM
 To: [Simmons, Anne Marie](#)
 Dear Anne Marie,

Thank you for your interest in my work. You may use the UWES free of charge for your dissertation research. Please visit my website (address below), from which you may download the English version.

With kind regards,
 Wilmar Schaufeli

Wilmar B. Schaufeli, PhD
 Social and Organizational Psychology
 P.O. Box 80.140, 3508 TC Utrecht, The Netherlands
 Tel: (31) 30-253 9093; Fax: (31) 30-253 7842
<http://www.wilmarschaufeli.nl>

-----Oorspronkelijk bericht-----
 Van: Simmons, Anne Marie [<mailto:ASimmons@gc.cuny.edu>]
 Verzonden: vrijdag 18 november 2011 21:43
 Aan: Schaufeli, W.B.
 Onderwerp: request to use scale

Dear Dr. Schaufeli,

My name is Anne Marie Simmons. I am a full-time DNS student in the Doctoral Program in Nursing Science at the Graduate Center, City College of New York located in New York City, New York.

I am writing you to ask permission to use the Utrecht Work Engagement Scale (UWES) for my dissertation research. I want to research the relationship between perceived organizational support, work stressors and front line nurse managers.

My Sponsor, Dr. Donna Nickitas, RN, Ph.D. , NEA-BC, CNE is a Professor at Hunter College, City University of New York , Hunter-Bellevue School of Nursing and the Deputy Executive Officer, Doctor of Nursing Science, Graduate Center, City University of New York . She is also the editor of Nursing Economic\$, The Journal for Health Care Leaders.

Upon completion of the research, I will provide you with a brief summary of the results, including information related to the use of the scale in the study. Thank you for your consideration.

Anne Marie Simmons
 DNS student
 Graduate Center
 City College of New York
 email: asimmons@gc.cuny.edu

Re: request permission to use scale

Marcie LePine ASU [Marcie.LePine@asu.edu]

You replied on 11/19/2011 7:36 AM.

Sent: Friday, November 18, 2011 6:03 PM

To: [Simmons, Anne Marie](#)

Dear Anne Marie-

No permission is necessary so certainly feel free to use the scale. Please let me know if you have any questions as you go forward with your research.

My best,
Marcie

On Nov 18, 2011, at 1:41 PM, Simmons, Anne Marie wrote:

> Dear Dr. LePine,

>

> My name is Anne Marie Simmons. I am a full-time DNS student in the Doctoral Program in Nursing Science at the Graduate Center, City College of New York located in New York City, New York.

>

> I am writing you to ask permission to use the Challenge-Hindrances Stressors Scale for my dissertation research. I want to research the relationship between work stressors, perceived organizational support and front line nurse manager engagement.

>

> My Sponsor, Dr. Donna Nickitas, RN, Ph.D. , NEA-BC, CNE is a Professor at Hunter College, City University of New York , Hunter-Bellevue School of Nursing and the Deputy Executive Officer, Doctor of Nursing Science, Graduate Center, City University of New York . She is also the editor of Nursing Economic\$, The Journal for Health Care Leaders.

>

> Upon completion of the research, I will provide you with a brief summary of the results, including information related to the use of the scale in the study. Thank you for your consideration.

>

> Anne Marie Simmons

> DNS student

> Graduate Center

> City College of New York

> email: asimmons@gc.cuny.edu<Request Letter to use Challenge-Hindrances Stressor Scale.docx>

RE: requesting permission to use survey
 Eisenberger, Robert W [reisenbe@Central.UH.EDU]
 You replied on 11/18/2011 4:37 PM.
 Sent: Friday, November 18, 2011 4:20 PM
 To: [Simmons, Anne Marie](#); reisenberger2@uh.edu

Dear Ms. Simmons.

I am happy to grant permission. Best of luck with your research.
 Cordially,

Bob
 Robert Eisenberger
 Professor of Psychology
 College of Liberal Arts & Soc. Sciences
 Professor of Management
 C. T. Bauer College of Business
 University of Houston
reisenberger2@uh.edu
 (302)353-8151

From: Simmons, Anne Marie [ASimmons@gc.cuny.edu]
 Sent: Friday, November 18, 2011 2:38 PM
 To: reisenberger2@uh.edu
 Subject: requesting permission to use survey

Dear Dr. Eisenberger,

My name is Anne Marie Simmons. I am a full-time DNS student in the Doctoral Program in Nursing Science at the Graduate Center, City College of New York located in New York City, New York.

I am writing you to ask permission to use the 8-item Survey of Perceived Organizational Support for my dissertation research.

I want to research the relationship between perceived organizational support, work stressors and front line nurse manager engagement.

Dr. Donna Nickitas is my advisor. Dr. Nickitas, RN, Ph.D. , NEA-BC, CNE is Professor at Hunter College, City University of New York , Hunter-Bellevue School of Nursing and Deputy Executive Officer, Doctor of Nursing Science Graduate Center, City University of New York . She is also the Editor of Nursing Economic\$, The Journal For Health Care Leaders.

Upon completion of the research, I will provide you with a brief summary of the results, including information related to the use of the survey in the study. Thank you considering this request.

Anne Marie Simmons
 DNS student
 Graduate Center
 City College of New York
 email: asimmons@gc.cuny.edu

References

- Andrews, D. R., & Dziegielewski, S. F. (2005). The nurse manager: Job satisfaction, the nursing shortage and retention. *Journal of Nursing Management, 13*(4), 286-295.
- Anthony, M. K., Standing, T. S., Glick, J., Duffy, M., Paschall, F., Sauer, M. R., ... & Dumpe, M. L. (2005). Leadership and nurse retention: the pivotal role of nurse managers. *Journal of Nursing Administration, 35*(3), 146-155.
- Armeli, S., Eisenberger, R., Fasolo, P., & Lynch, P. (1998). Perceived organizational support and police performance: the moderating influence of socio-emotional needs. *Journal of Applied Psychology, 83*, 288-297.
- American Nurses Credentialing Center. (2008). *Magnet recognition program® manual recognizing nursing excellence*. Silver Spring, MD. American Nurses Credentialing Center.
- American Association of Critical-Care Nurses. (2005). AACN standards for establishing and sustaining healthy work environments: A journey to excellence. Retrieved from <http://www.aacn.org/WD/HWE/Docs/HWEStandards.pdf>
- American Organization of Nurse Executives. (2005). Principles & Elements Environment. Retrieved 9/12/11 from: <http://www.aone.org/resources>.
- Armeli, S., Eisenberger, R., Fasolo, P., & Lynch, P. (1998). Perceived organizational support and police performance: The moderating influence of socioemotional needs. *Journal of Applied Psychology, 83*(2), 288-297.

- Auerbach, D. I., Staiger, D. O., Muench, U., & Buerhaus, P. I. (2012). The nursing workforce: a comparison of three national surveys. *Nursing Economics*, 253-60.
- Bae, S. (2013). Presence of nursing mandatory overtime regulations and nurse and patient outcomes. *Nursing Economics*, 31, 59-68.
- Bakker, A. B., Albrecht, S., & Leiter, M. P. (2011). Key questions regarding work engagement. *European Journal of Work and Organizational Psychology*, 20, 4-28.
- Bakker, A. B., & Bal, M. P. (2010). Weekly work engagement and performance: A study among starting teachers. *Journal of Occupational and Organizational Psychology*, 83(1), 189-206.
- Bakker, A. B., & Demerouti, E. (2008). Towards a model of work engagement. *Career Development International*, 13, 209-223.
- Bakker, A. B., Demerouti, E., & Euwema, M. C. (2005). Job resources buffer the impact of job demands on burnout. *Journal of Occupational Health Psychology*, 10, 170-180.
- Bakker, A. B., Demerouti, E., & Verbeke, W. (2004). Using the Job Demands-Resources model to predict burnout and performance. *Human Resource Management*, 43, 83-104.
- Bakker, A. B., Hakanen, J. J., Demerouti, E., & Xanthopoulou, D. (2007). Job resources boost work engagement, particularly when job demands are high. *Journal of Educational Psychology*, 99, 274-284.
- Bakker, A. B., & Schaufeli, W. B. (2008). Positive organizational behavior: Engaged employees in flourishing organizations. *Journal of Organizational Behavior*, 29(2), 147-154.

- Bakker, A., Schaufeli, W., Leiter, M., & Taris, T. (2008). Work engagement: An emerging concept in occupational health psychology. *Work & Stress, 22*, 187-200.
- Bakker, A. B., van Veldhoven, M. J., & Xanthopoulou, D. (2010). Beyond the Demand-Control model: Thriving on high job demands and resources. *Journal of Personnel Psychology, 9*, 3-16.
- Balogh-Robinson, L. L. (2012). The crisis in leadership in the context of the nursing shortage and the increasing prevalence of nursing unions. *Journal of Healthcare Leadership, 4*, 127-139.
- Bargagliotti, L. (2012). Work engagement in nursing: a concept analysis. *Journal of Advanced Nursing, 68*(6), 1414-1428.
- Beehr, T. A. (1985). Organizational stress and employee effectiveness: A job characteristics approach. In T. A. Beehr & R. S. Bhagat (Eds.), *Human stress and cognition in organizations: An integrated perspective* (pp. 57-81). New York: John Wiley & Sons.
- Bingham, J.B., Boswell, W.R., & Boudreau, J.W. (2005). Job demands and job search among high level managers in the United States and Europe. *Group & Organizational Management, 30*, 653-681.
- Blizzard, R. (2002). Employee engagement: For-profit versus not-for-profit hospitals. *Gallup Poll Tuesday Briefing*, 1-2.
- Blizzard, R. (2002). Nurses may be satisfied, but are they engaged?
<http://www.gallup.com/poll/6004/Nurses-May-Satisfied-They-Engaged.aspx>.

- Boswell, W.R., Olson-Buchanan, J.B., & LePine, M.A. (2004). The relationship between work related stress and work outcomes: The role of felt-challenge, job control and psychological strain. *Journal of Vocational Behavior, 64*, 165-181.
- Brady Germain, P., & Cummings, G. G. (2010). The influence of nursing leadership on nurse performance: a systematic literature review. *Journal of Nursing Management, 18* (4), 425-439.
- Brown, P., Fraser, K., Wong, C., Muise, M. & Cummings, G. (2013). Factors influencing intentions to stay and retention of nurse managers: a systematic review. *Journal of Nursing Management, 21*, 459-472.
- Burns, N., & Grove, S. K. (2009). *The practice of nursing research: Appraisal, synthesis, and generation of evidence*. St. Louis: Saunders Elsevier.
- Burton, W. (2001). *Everything you wanted to know about designing a survey series*. Albert Einstein College of Medicine. New York.
- Cathcart, D., Jeska, S., Karnas, J., Miller S.E., Pechacek, J., & Rheault, L. (2004). Span of control matters. *Journal of Nursing Administration, 9*, 395-399.
- Cavanaugh, M.A., Boswell, W.R., Roehling, M.V., & Boudreau, J.W. (2000). An empirical examination of self-reported work stress among U.S. managers. *Journal of Applied Psychology, 85*, 65-74.
- Chang, E., Hancock, K., Johnson, A., & Jackson, D. (2005). Role stress in nurses: Review of related factors and strategies for moving forward. *Nursing and Health Science, 7*, 57-65.

- Christian, M.S., Garza, A.S., & Slaughter, J.E. (2011). Work engagement: A quantitative review and test of its relations with task and contextual performance. *Personnel Psychology*, 64, 89-136.
- Crawford, E., LePine, J., & Rich, B. (2010). Linking job demands and resources to employee engagement and burnout: A theoretical extension and meta-analytic test. *Journal of Applied Psychology*, 95, 834-848.
- Creswell, J. W. (2008). *Research design: Qualitative, quantitative, and mixed methods approaches*. SAGE Publications, Incorporated.
- Creswell, J., & Plano-Clark, V. (2010). *Designing and Conducting Mixed Methods Research*. Thousands Oaks, CA, Sage Publications.
- Cronbach, L. J. (1970). *Essential of Psychological Testing (3rd Ed)*. New York: Harper & Row.
- Demerouti, E., & Bakker, A. B. (2011). The job demands–resources model: Challenges for future research. *SA Journal of Industrial Psychology*, 37(2), 1-9.
- Demerouti, E., Bakker, A. B., De Jonge, J., Janssen, P. P., & Schaufeli, W. B. (2001). Burnout and engagement at work as a function of demands and control. *Scandinavian Journal of Work, Environment & Health*, 279-286.
- Demerouti, E., Bakker, A., Nachreiner, F., & Schaufeli, W. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology*. 86(3), 499-512.
- Demerouti, E., & Cropanzano, R. (2010). From thought to action: Employee work engagement and job performance. In A.B. Bakker & M.P. Leiter (Eds.). *Work engagement: A handbook of essential theory and research*, 147-163.

- Dillman, D., Smyth J., & Christian, L. (2009). *Internet, mail and mix-mode mode surveys: the tailored design method. (3rd Ed.)*. Hoboken, N.J: John Wiley & Sons.
- Duffield, C., Roche, M., Blay, M., & Stash, H. (2011). Nursing unit managers, staff retention and the work environment. *Journal of Clinical Nursing, 20*, 23–33.
- Ebright, P. (2010). The complex work of RNs: Implications for healthy work environments *OJIN: The Online Journal of Issues in Nursing, 15*. Retrieved on March 12, 2013 from <http://www.nursingworld.org/>
- Eisenberger, R., Cummings, J., Armeli, S., & Lynch, P. (1997). Perceived organizational support, discretionary treatment, and job satisfaction. *Journal of Applied Psychology, 82*(5), 812.
- Eisenberger, R., Huntington, R., Hutchinson, S., & Lynch, P. (1997). Perceived organizational support, discretionary treatment and job satisfaction. *Journal of Applied Psychology, 82*, 812-820.
- Eisenberger, R., Huntington, R., Hutchinson, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology, 71*, p.500-507.
- Ellis, L. (1986). Role ambiguity among hospital head nurses. *Nursing Administration Quarterly, 11*, 49-53.
- Espinoza, D., Lopez-Saldana, A., & Stonestreet, J. (2009). The pivotal role of the nurse manager in healthy workplaces. *Critical Care Nurse, 32*, 323-334.

- Faul, F., Erdfelder, E., Lang, A. G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis for the social, behavioral, and biomedical sciences. *Behavior Research Methods, 39*, 175-191.
- Faulkner, J., & Laschinger, H. (2008). The effects of structural and psychological empowerment on perceived respect in acute care nurses. *Journal of Nursing Management, 16*(2), 214-221.
- Finkler, S., & McHugh, M. (2007). *Budgeting Concepts for Nurse Managers*. Philadelphia, PA: WB Saunders.
- Finley, R. (1999). SurveyMonkey.com. Portland, Oregon: SurveyMonkey.com.
- Foley, S., Hang-Yue, N., & Luis, S. (2005). The effects of work stressors, perceived organizational support and gender on work-family conflict in Hong Kong. *Asian Pacific Journal of Management, 23*7-256.
- Forbes, (1979). *Corporate Stress*. Garden City: N.Y. Doubleday.
- Frederickson, K. & Nickitas, D. M. (2011). Chief nursing officer executive development: A crisis or challenge. *Nursing Administration Quarterly, 35*, 344-352.
- Freney, Y. M., & Tiernan, J. (2009). Exploration of the facilitators of and barriers to work engagement in nursing. *International journal of nursing studies, 46*(12), 1557-1565.
- González-Romá, V., Schaufeli, W. B., Bakker, A. B., & Lloret, L. (2006). Burnout and work engagement: Independent factors or opposite poles. *Journal of Vocational Behavior, 68*, 165–174.

- Greco, P., Laschinger, H. K. S., & Wong, C. (2006). Leader empowering behaviours, staff nurse empowerment and work engagement/burnout. *Nursing Leadership, 19*(4), 41-56.
- Hakanen, J. J., Bakker, A. B., & Demerouti, E. (2005). How dentists cope with their job demands and stay engaged: The moderating role of job resources. *European Journal of Oral Sciences, 113*(6), 479-487.
- Hakanen, J. J., Bakker, A. B., & Schaufeli, W. B. (2006). Burnout and work engagement among teachers. *Journal of School Psychology, 43*, 495-513.
- Halbesleben, J. R., Bowler, W. M., Bolino, M. C., & Turnley, W. H. (2010). Organizational concern, prosocial values, or impression management? How supervisors attribute motives to organizational citizenship behavior. *Journal of Applied Social Psychology, 40*(6), 1450-1489.
- Hall, L. M., Doran, D., & Pink, L. (2008). Outcomes of interventions to improve hospital nursing work environments. *Journal of Nursing Administration, 38*(1), 40-46.
- Hallberg, U. E., & Schaufeli, W. B. (2006). "Same Same" But Different?. *European Psychologist, 11*(2), 119-127.
- Harter, J. K., Schmidt, F.L., & Hayes, T. L. (2002). Business- unit-level relationship between employee satisfaction, employee engagement, and business outcomes: A meta-analysis. *Journal of Applied Psychology, 87*, 268-279.
- Harter, J. K., Schmidt, F. L., Killham, E. A., & Agrawal, S. (2009). *Q12® Meta-Analysis: The Relationship Between Engagement at Work and Organizational Outcomes*. Omaha, NE: Gallup.

- Hayes, L. J., O'Brien-Pallas, L., Duffield, C., Shamian, J., Buchan, J., Hughes, F., ... & North, N. (2012). Nurse turnover: A literature review—an update. *International Journal of Nursing Studies*, 49(7), 887-905.
- Health Resources and Services Administration. (2010). *The registered nurse population: Findings from the 2008 National Sample Survey of Registered Nurses*. Retrieved from <http://bhpr.hrsa.gov/healthworkforce/rnsurvey/2008/nssrn2008.pdf>.
- Hodes aging workforce study (2006). Retrieved May 20, 2011 from www.hodes.com/publications/pdfs/agingnurse_sep06.pdf
- Hodes aging workforce study (2009). Retrieved March 31, 2013 from www.hodes.com/publications/pdfs/agingnurse_sep09.pdf
- Hofler, L. D. (2008). Nursing education and transition to the work environment: A synthesis of national reports. *The Journal of Nursing Education*, 47, 5-12.
- Hulley, S., Cummings, S., Browner, W., Grady, D., & Newman, T. (2007). *Designing Clinical Research: An Epidemiologic Approach*. Philadelphia: Lippincott Williams and Wilkins.
- Institute for Healthcare Improvement (2010). *The Pursuing Perfection Initiative: Lessons on Transforming Health Care*. IHI Innovation Series white paper. Cambridge, Massachusetts.
- Institute of Medicine. (2004). *Keeping patients safe: transforming the work environment of nurses*. Washington: National Academies Press.
- Institute of Medicine (2010). *Future of nursing: leading change, advancing health*. National Academy of Sciences.

- Jenaro, C., Flores, N., Orgaz, M. B., & Cruz, M. (2011). Vigour and dedication in nursing professionals: towards a better understanding of work engagement. *Journal of Advanced Nursing*, 67(4), 865-875.
- Jones, C. B. (2005). The costs of nurse turnover, part 2. *Journal of Nursing Administration*, 35(1): 41-49
- Jones, C., & Gates, M. (2007). The costs and benefits of nurse turnover: A business case for nurse retention. *ANA Periodicals OJIN*, 3, www.nursingword.com retrieved April 29, 2009.
- Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33, 692-724.
- Kahn, W. A. (1992). To be fully there: psychological presence at work. *Human Relations*, 45, 321-349.
- Karasek, R. (1979). Job demands, job decision latitude and mental strain: Implications for job redesign. *Administrative Science Quarterly*, 24, 285-308.
- Katz, D., & Kahn, R. L. (1978). *The Social Psychology of Organization*. (2nd Ed.). New York. Wiley.
- Kinnunen, U., Feldt, T., & Mäkikangas, A. (2008). Testing the effort-reward imbalance model among Finnish managers: The role of perceived organizational support. *Journal of Occupational Health Psychology*, 13(2), 114.
- Kittredge, A. (2010). Predicting work and organizational engagement with work and personnel factors.(Doctoral dissertation). Retrieved from <http://scholarworks.sjsu.edu/>.

- Kleinman, C. (2004). The relationship between managerial leadership behaviors and staff nurse retention. *Hospital Topics*, 82, 2-9.
- Kovner, C., Brewer, C., Wu, Y., Cheng, Y., & Suzuki, M. (2006). Factors associated with work satisfaction of registered nurses. *Journal of Nursing Scholarship*, 38, 71-79.
- Koyuncu, M., Burke, R. J., & Fiksenbaum, L. (2006). Work engagement among women managers and professionals in a Turkish bank: Potential antecedents and consequences. *Equal Opportunities International*, 25(4), 299-310.
- Kramer, M., Maguire, P., Schmalenberg, C., Brewer, B., Burke, R., Chmielewski, L., ... & Waldo, M. (2007). Nurse manager support: what is it? Structures and practices that promote it. *Nursing Administration Quarterly*, 31(4), 325-340.
- Lanser, P., & Coshow, S. (2007). Culture of the truth about health care employee engagement. *HR Pulse*. Fall.
- Laschinger, H. K. S., & Finegan, J. (2005). Empowering nurses for work engagement and health in hospital settings. *Journal of Nursing Administration*, 10, 439-449.
- Laschinger, H. K. S., Grau, A. L., Finegan, J., & Wilk, P. (2012). Predictors of new graduate nurses' workplace well-being: Testing the job demands-resources model. *Health Care Management Review*, 37(2), 175-186.
- Laschinger, H. K. S., Purdy, N., & Almost, J. (2007). The impact of leader-member exchange quality, empowerment, and core self-evaluation on nurse manager's job satisfaction. *Journal of Nursing Administration*, 37(5), 221-229.

- Laschinger, H. K. S., Purdy, N., Cho, J. & Almost, J. (2006). Antecedents and consequences of nurse managers' perceptions of organizational support. *Nursing Economics*, 24, 20-29.
- Laschinger, H. K. S., Wilk, P., Cho, J., & Greco, P. (2009). Empowerment, engagement and perceived effectiveness in nursing work environments: does experience matter? *Journal of Nursing Management*, 17(5), 636-646.
- Laschinger, H. K. S., & Wong, C. (2006a). Leader empowering behaviors, staff nurse empowerment, and work engagement/burnout. *Nursing Leadership*. 4, 41-56.
- Laschinger, H. K. S., Wong, C., & Greco, P. (2006). The impact of staff nurse empowerment on person-job fit and work engagement/burnout. *Nursing Administration Quarterly*, 4, 358-367.
- Lawrence, L. A. (2011). Work engagement, moral distress, education level, and critical reflective practice in intensive care nurses. *Nursing Forum*, 46(4), 256-268.
- Leiter, M. P., & Bakker, A. B. (2010). Work-engagement: Introduction. In A. B. Bakker & M.P. Leiter (Eds), *Work engagement: a handbook of essential theory and research*: 1-9. New York, US: Psychology Press.
- Leiter, M. P., & Maslach, C. (2004). Areas of worklife: A structured approach to organizational predictors of job burnout. *Research in occupational stress and well-being*, 3, 91-134.
- LePine, M.A., LePine, J.A., & Jackson, C.L. (2004). Challenge and hindrance stress: Relationships with exhaustion, motivation to learn, and learning performance. *Journal of Applied Psychology*, 89, 883-891.

- LePine, J.A., Podsakoff, N.P., & LePine, M.A. (2005). A meta-analytic test of the challenge stressor-hindrance stressor framework: An explanation for inconsistent relationships among stressors and performance. *Academy of Management Journal*, 48, 764-775.
- Lloyd, Morgan. (2004). *Driving Performance and Retention through Employee Engagement*. Corporate Leadership Council, p. 4.
- Loke, C. (2001). Leadership behaviours: effects on job satisfaction, productivity and organizational commitment. *Nursing Management*, 9, 191-204.
- Macey, W., & Schneider, (2008). The meaning of employee engagements. *Industrial and Organizational Psychology*, 1, 3-30.
- Mackoff, B., & Triolo, P. K. (2008). How to keep great nurse managers. *Gallup Management Journal*. Retrieved from gmj.gallup.com on February 18, 2011.
- Mackoff, B., & Triolo, P. K. (2008). Why do nurse managers stay? Building a model of engagement: Part 1, dimensions of engagement. *Journal of Nursing Administration*, 3, 118-124.
- Mackoff, B., & Triolo P. K. (2008). Why do nurse managers stay? Building a model of engagement: Part 2, cultures of engagement. *Journal of Nursing Administration*, 4, 166-171.
- Manion J. (2009). *The Engaged Workforce: Proven Strategies to Build a Positive Health Care Workplace*. Chicago, IL: Health Forum Inc.
- Maslach, C., & Leiter M. (1997). *The Truth About Burnout*. San Francisco, CA: Jossey-Bass.

- Maslach, C., & Leiter, M. (2008). Early predictors of job burnout and engagement. *Journal of Applied Psychology, 93*, 498–512.
- Mathena, K. (2002). Nursing manager leadership skills. *Journal of Nursing Administration, 32*, 136-142.
- Mauno, S., Kinnunen, U., & Ruokolainen, M. (2007). Job demands and resources as antecedents of work engagement: A longitudinal study. *Journal of Vocational Behavior, 70*(1), 149-171.
- Mauno, S., Pyykko, M., & Hakanen, J. (2005). The prevalence and antecedents of work engagement in three different organizations. *Psychology, 40*, 16-30.
- May, D.R.; Richard, G., L., & Harter, L.M. (2004). The psychological conditions of meaningfulness, safety and availability and engagement of the human spirit at work. *Journal of Occupational and Organizational Psychology, 77*, 11- 37.
- McCutcheon, A. S., Doran, D., Evans, M., Hall, L. M., & Pringle, D. (2009). Effects of leadership and span of control on nurses' job satisfaction and patient satisfaction. *Nursing Leadership, 22*(3), 48-67.
- McGuire, E., & Kennerly, S. (2006). Nurse managers as transformational and transactional leaders. *Nursing Economics, 24*, 179-185.
- McLarty, J., & McCartney, D. (2009). The nurse manager the neglected middle: hospitals can improve operational and financial effectiveness by providing nurse managers with data driven, evidence-based management tools and training. *Healthcare Financial Management, Gale: Cengage Learning*

- Mrayyan, M. T. (2004). Nurses' autonomy: influence of nurse managers' actions. *Journal of Advanced Nursing*, 45(3), 326-336.
- Munro, B. H. (2005). *Statistical methods for health care research (Vol. 1)*. Lippincott Williams & Wilkins.
- Nielsen, K., Randall, R., Yarker, J., & Brenner, S. O. (2008). The effects of transformational leadership on followers' perceived work characteristics and psychological well-being: A longitudinal study. *Work & Stress*, 22(1), 16-32.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychological theory*. New York: McGraw-Hill.
- O'Brien-Pallas, L., Tomblin Murphy, G., Shamian, J., Li, X., & Hayes, L.J. (2010). Impacts and determinants of nurse turnover: a pan-Canadian study. *Journal of Nursing Management*, 18, 1073-1086.
- O'Neil, E., Morjikian, R., Cherner, D., Hirschorn, C., & West, T. (2008). Developing nurse leaders: An overview of trends and programs. *Journal of Nursing Administration*, 38, 178-183.
- Parsons, M., & Stonestreet, J. (2003). Factors that contribute to nurse manager retention. *Nursing Economics*, 21, 120-126.
- Patrick, A., & Spence-Laschinger, H. (2006). The effect of structural empowerment and perceived organizational support on middle level nurse managers' role satisfaction. *Journal of Nursing Management*, 14, 13-22.
- Patterson, (2009). *Ohio physical therapist's perceived level of engagement in the workplace and profession. A thesis*: Graduate School of The Ohio State University. Ohio.

- Pearsall, M. J., Ellis, A. P. J., & Stein, J. H. (2009). Coping with challenge and hindrance stressors in teams: Behavioral, cognitive, and affective outcomes. *Organizational Behavior and Human Decision Processes*, *109*, 18–28. doi:10.1016/j.obhdp.2009.02.002
- Pillay, R. (2009). Work satisfaction of professional nurses in South Africa: a comparative analysis of the public and private sectors. *Human Resources for Health*, *7*, 1-10.
- Podsakoff, N. P. (2007). *Challenger and Hindrance stressors in the workplace tests of linear, curvilinear, moderated relationships with employee strains, satisfaction and performance*. Retrieved from ProQuest Database. University of Florida.
- Podsakoff, N.P., LePine, J.A., & LePine, M.A. (2007). Differential challenge stressor-hindrance stressor relationships with job attitudes, turnover intentions, turnover, and withdrawal behavior: A meta-analysis. *Journal of Applied Psychology*, *92*, 438-454.
- Podsakoff, N.P., Rich, B.L., Saul, J.R., & LePine, J.A. (Under review). Job demands, situational strength and employee performance: The moderating effect of challenge and hindrance stressors on agreeableness-performance criteria relationships.
- Podsakoff, N.P., Shen, W., & Podsakoff, P.M. (2006). The role of formative measurement models in strategic management research: Review, critique, and implications for future research. In D.J. Ketchen and D.D. Bergh (Eds.). *Research Methods in Strategy and Management*, *3*, 201-256. Greenwich, CN: JAI.
- Podsakoff, N. P., Whiting, S. W., Podsakoff, P. M., & Blume, B. D. (2009). Individual-and organizational-level consequences of organizational citizenship behaviors: A meta-analysis. *Journal of Applied Psychology*, *94*(1), 122.

- Polit, D., & Beck, C (2008). *Nursing Research*. Philadelphia: Lippincott Williams and Wilkins.
- Regan, L. C., & Rodriguez, L. (2011). Nurse empowerment from a middle-management perspective: nurse managers' and assistant nurse managers' workplace empowerment views. *The Permanente Journal*, 15(1), e101.
- Rhoades, L., & Eisenberger, R. (2002). Affective commitment to the organization: the contribution of perceived organizational support. *Journal of Applied Psychology*, 86, 825-836.
- Rhoades, L., & Eisenberger, R. (2002). Perceived organizational support: a review of the literature. *Journal of Applied Psychology*, 87, 698-714.
- Rich, B. L., Lepine, J. A., & Crawford, E. R. (2010). Job engagement: Antecedents and effect on job performance. *Academy of Management Journal*, 53, 617–635.
- Rothmann, S., & Joubert, J. (2007). Job demands, job resources, burnout and work engagement of managers at a platinum mine in North West Province. *South African Journal of Business Management*, 38, 49-61.
- Salanova, M., Agut, S., & Peiro, J. M. (2005). Linking organizational resources and work engagement to employee performance and customer loyalty: The mediating role of service climate. *Journal of Applied Psychology*, 90(6), 1217-1227.
- Salanova, M., Lorente, L., Chambel, M. J., & Martínez, I. M. (2011). Linking transformational leadership to nurses' extra-role performance: the mediating role of self-efficacy and work engagement. *Journal of Advanced Nursing*, 67(10), 2256-2266.

- Schaufeli, W. B., and 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.
- Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire. A cross-national study. *Educational and Psychological Measurement, 66*, 701–716.
- Schaufeli, W. B., Bakker, A. B., & Van Rhenen, W. (2009). How changes in job demands and resources predict burnout, work engagement, and sickness absenteeism. *Journal of Organizational Behavior, 30*(7), 893-917.
- Schaufeli, W. B., & Salanova, M. (2011). Work engagement: On how to better catch a slippery concept. *European Journal of Work and Organizational Psychology, 20*, 39–46.
- Schaufeli, W. B., Salanova, M., Gonzalez-Roma, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: a two sample confirmatory factor analytic approach. *Journal of Happiness Studies, 3*, 71-92.
- Schaufeli, W. B., Taris, T. W., & Bakker, A. B. (2006). *Doctor Jekyll or mr. Hyde?: On the differences between work engagement and workaholism*. In R. J. Burke (Ed.), *Research companion to working time and work addiction* (pp. 193-217). Cheltenham, United Kingdom: Elgar.
- Seppala, P., Mauno, S., Feldt, T., Hakanen, J., Kinnunen, U., Tolvanen, A., & Schaufeli, W. (2009). The Construct Validity of the Utrecht Work Engagement Scale: Multisample and Longitudinal Evidence. *Journal of Happiness Studies, 10*, 459–481. DOI 10.1007/s10902-008-9100-y.

- Sherman, R., Bishop, M., Eggenberger, T., & Karden, R. (2007). Development of a leadership competency model from insights shared by nurse managers. *Journal of Nursing Administration, 37*, 85-94.
- Sherman, R., Edwards, B., Giovengo, K., & Hilton, N. (2009). The role of the clinical nurse leader in promoting a healthy work environment at the unit level. *Critical Care Nursing Quarterly, 32*, 264-271.
- Sherman, R., & Pross, E. (2010). Growing Future Nurse Leaders to Build and Sustain Healthy Work Environments at the Unit Level. *OJIN: The Online Journal of Issues in Nursing Vol. 15*, No. 1, Manuscript 1.
- Shirey, M.R. (2006). Authentic leaders creating healthy work environments for nursing practice. *American Journal of Critical Care, 15*, 256-276.
- Shirey, M. R., & Fisher, M. L. (2008). Leadership agenda for change toward healthy work environments in acute and critical care. *Critical Care Nurse, 28*(5), 66-78.
- Shirey, M. R., McDaniel, A. M., Ebright, P. R., Fisher, M. L., & Doebbeling, B. N. (2010). Understanding nurse manager stress and work complexity: factors that make a difference. *Journal of Nursing Administration, 40*(2), 82-91.
- Shore, L., & Tetrick, L. (1991). A construct validity study of the Survey of Perceived Organizational Support. *Journal of Applied Psychology, 76*, 637-643.
- Simpson, M. (2009). Engagement at work: A review of the literature. *International Journal of Nursing Studies, 46*, 1012-1024.

- Simpson, M. (2009). Predictors of work engagement among medical-surgical nurses. *Western Journal of Nursing Research, 31*, 44-65.
- Skytt, B., Ljunggren, B., & Carlsson, M. (2007). Reasons to leave: the motives of the frontline managers' for leaving their posts. *Journal of Nursing Management, 15*, 294-302.
- Skytt, B., Ljunggren, B., Carlsson, M., & Engstrom, M. (2008). Psychometric testing of leadership and management inventory: a tool to measure the skills and abilities of first line nurse managers. *Journal of Nursing Management, 16*, 784-794.
- Stamper, C., & Johlke, M. (2003). The impact of perceived organizational support on the relationship between boundary spanner role stress and work outcomes. *Journal of Management, 29*, 569-588.
- Stichler, J. (2008). Succession planning: Why grooming their replacements is critical for nurse leaders. *Nursing for Women's Health, 12*, 525-528.
- Sundin, L., Hochwalder, J., & Bildt, C. (2008). A scale for measuring specific job demands within the health care sector: Development and psychometric assessment. *International Journal of Nursing Studies, 45*(6), 914-923.
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using Multivariate Statistics*. Pearson Education Inc. Boston, MA.
- Thorpe, K., & Loo, R. (2003). Balancing professional and personal satisfaction of nurse managers: current and future perspectives in a changing health care system. *Journal of Nursing Management 11*, 321-330.

- Ulrich, B., Lavandero, R., Wood, D., Leggett, J., & Friedman, D. (2009). Critical care nurses' work environments 2008: a follow-up report. Hodes Health Care Team. *Critical Care Nurse, 29*, 93-102.
- Vance, R. (2006). Employee engagement and commitment: A guide to understanding, measuring, and increasing engagement in your organization. *Society for Human Resource Management*. Retrieved February 18, 2011.
www.shrm.org/foundation/1006EmployeeEngagementOnlineReport.pdf.
- Vinje, H. F., & Mittelmark, M. B. (2008). Community nurses who thrive: the critical role of job engagement in the face of adversity. *Journal for Nurses in Staff Development, 24*(5), 195.
- Wallace, J. C., Edwards, B. D., Arnold, T., Frazier, M. L., & Finch, D. M. (2009). Work stressors, role-based performance, and the moderating influence of organizational support. *Journal of Applied Psychology, 94*(1), 254.
- Walumbwa, F., Avolio, B., Gardner, W., Wernsing, T., & Peterson, S. (2008). Authentic Leadership: Development and Validation of a Theory-Based Measure. *Journal of Management, 34*, 89-126.
- Warshawsky, N. E., Havens, D. S., & Knafl, G. (2012). The influence of interpersonal relationships on nurse managers' work engagement and proactive work behavior. *Journal of Nursing Administration, 42*(9), 418-425.
- Webster, J. R., Beehr, T. A., & Christiansen, N. D. (2010). Toward a better understanding of the effects of hindrance and challenge stressors on work behavior. *Journal of Vocational Behavior, 76*(1), 68-77.

- Wendler, C., Olsen-Sitki, K., & Prater, M. (2009). Succession Planning for RNs: Implementing a nurse management internship. *Journal of Nursing Administration, 39*, 324-333.
- Wong, C. A., Laschinger, H. K. S., & Cummings, G. G. (2010). Authentic leadership and nurses' voice behaviour and perceptions of care quality. *Journal of Nursing Management, 18*(8), 889-900.
- Worley, J. A., Fuqua, D. R., & Hellman, C. M. (2009). The survey of perceived organizational support: Which measure should we use? *SA Journal of Industrial Psychology, 35*, 1-5.
- Xanthopoulou, D., Bakker, A., Demerouti, E., & Schaufeli W. (2008). Reciprocal relationships between job resources, personal resources, and work engagement. *Journal of Vocational Behavior, 74*, 235-244.
- Xanthopoulou, D., Bakker, A. B., Dollard, M. F., Demerouti, E., Schaufeli, W. B., Taris, T. W., & Schreurs, P. J. G. (2007). When do job demands particularly predict burnout? The moderating role of job resources. *Journal of Managerial Psychology, 22*, 766-786.
- Zastocki, D., & Holly, C. (2010) Retaining nurse managers. *American Nurse Today, 5*. Retrieved 12/12/12 from: www.americannursetoday.com/article/
- Zori, L., Nosek, L., & Musil, C. (2010). Critical thinking of nurse managers related to staff RNs' perceptions of the practice environment. *Journal of Nursing Scholarship, 42*, 305-313.