

CORRELATES OF JOB-RELATED BURNOUT IN NURSE MANAGERS WORKING
IN HOSPITALS

by

DOROTHY SMITH CAROLINA

A Dissertation submitted to the

Graduate School-Newark

Rutgers, The State University of New Jersey

in partial fulfillment of the requirements

for the degree of

Doctor of Philosophy

Graduate Program in Nursing

written under the direction of

Linda Flynn, Ph.D., R.N.

and approved by

Newark, New Jersey

January, 2010

ABSTRACT OF THE DISSERTATION

Correlates of Job-Related Burnout in Nurse Managers Working in Hospitals

By Dorothy Smith Carolina

Dissertation Director: Dr. Linda Flynn, FAAN

Job-related burnout is a serious psychological phenomenon that can jeopardize the health and well-being of millions of human service providers, such as nurses, police officers, social workers, physicians, and managers. Factors in the work environment, such as role overload, make individuals working as human services providers vulnerable to job-related burnout. The purpose of this study was to investigate the correlates of job-related burnout in a sample of nurse managers working in hospitals.

Using a correlational design, this study examined factors such as role overload, role conflict, and perceived organizational support and their relationship to job burnout in a sample of 96 nurse managers working in hospitals in the United States. The Maslach Burnout Inventory, the Role Conflict subscale of the Role Conflict and Ambiguity Scale, the Role Overload subscale of the Role Hassles Index, and the Survey of Perceived Organizational Support were used to measure these variables. Surveys were mailed to the participants using the Tailored Design Method, which resulted in a 48% response rate.

Job-related burnout was positively related to role overload ($r=.43$, $p<.05$), positively related to role conflict ($r=.39$, $p<.05$), and inversely related to perceived

organizational support ($r = -.35$, $p < .05$). A two-step hierarchical regression analysis revealed that perceived organizational support did not moderate the effects of role overload ($\beta = .30$, $p = .31$) or role conflict ($\beta = .37$, $p = .23$) on job-related burnout. Additional findings revealed that 66.7% of the sample suffered from job burnout, and 73.5% of nurse managers working on medical-surgical units suffered from burnout. Multiple regression analyses revealed that both role conflict ($\beta = .219$, $p = .046$) and role overload ($\beta = .315$, $p = .005$) uniquely and significantly contributed to job burnout, with role overload being the strongest predictor. Multiple regression analyses, testing mediation variables role conflict and role overload, reveal that both significantly predict job burnout

These findings suggest that job burnout is prevalent among nurse managers working in hospitals. Role overload and role conflict are significant predictors of job-related burnout. Work redesign plans as well as early assessment and intervention may be helpful in the reduction of job burnout in nurse managers working in hospitals.

ACKNOWLEDGEMENTS

Pursuing a doctorate in nursing was a journey that provided me with opportunities for tremendous growth, both personally and professionally. First and foremost, I would like to thank God for his grace and giving me the strength to persevere in times when I certainly felt like giving up. Secondly, I wish to thank my husband Wayne for his love, support, and friendship during my quest to be the best that I could be. To my son Kevin, thank you for being very understanding and patient as I worked on completing this “big project”. I hope that I have made you proud.

To Dr. Linda Flynn, my chairperson, advisor, and mentor, thank you for your patience, dedication, and encouragement during this dissertation process. It is an honor and privilege to have you in my life. Dr. Charlotte Thomas-Hawkins, your honesty and frankness placed me on a path that I probably would not have otherwise taken. Thanks for being a wonderful mentor who gave me the advice and support that I needed to get the job done. Dr. Elise Lev and Dr. Saul Rubinstein, your insights and expertise were invaluable during this process. Thank you for being such an integral part of my dissertation work.

I would also like to extend my sincere appreciation to the Institute for Nursing for the financial support of this dissertation. I am also grateful to Barbara Penschow, whom I have known for many years, for her assistance in preparing the surveys and labels for mailing.

DEDICATION

This research is dedicated in loving memory of my parents, George and Floree Smith. I will be eternally grateful for your love and sacrifices that made me the woman, wife, mother, nurse, and teacher that I am today.

Floree Smith
August 31, 1931-September 12, 1995

George Smith
September 15, 1926-December 11, 1999

TABLE OF CONTENTS

ABSTRACT.....	ii
ACKNOWLEDGEMENTS.....	iv
DEDICATION.....	v
TABLE OF CONTENTS.....	vi
LIST OF TABLES.....	viii
CHAPTER I: THE PROBLEM.....	1
Discussion of the Problem.....	1
Statement of the Problem.....	6
Sub-problems.....	6
Definition of Terms.....	7
Delimitations.....	8
Significance of the Study.....	9
CHAPTER II: REVIEW OF THE LITERATURE	15
Review of the Literature.....	15
Theories of Job-Related Burnout.....	15
Theories of Role Overload.....	22
Job-Related Burnout and Role Overload.....	24
Theories of Role Conflict.....	27
Job-Related Burnout and Role Conflict.....	29
Theory of Perceived Organizational Support.....	31
Job-Related Burnout and Perceived Organizational Support.....	33
Theoretical Rationale.....	35
Hypotheses.....	36
CHAPTER III: METHODS.....	39
Research Design.....	39
Research Setting.....	39
Sampling Methods.....	39
Sample.....	40
Instruments.....	41
<i>Maslach Burnout Inventory for Human Service Subjects</i>	41
<i>Role Conflict Scale</i>	43

<i>Role Hassles Index, Role Overload Subscale</i>	45
<i>Survey of Perceived Organizational Support</i>	46
<i>Demographics Questionnaire</i>	48
Procedure for Data Collection.....	47
Human Subjects Protection.....	48
Data Analysis Plan.....	49
CHAPTER IV: ANALYSIS OF THE DATA.....	52
Statistical Description of the Study Variables.....	52
Psychometric Properties of the Study Instruments.....	53
Demographic Data.....	55
Hypotheses.....	56
Hypothesis 1.....	57
Hypothesis 2.....	57
Hypothesis 3.....	58
Hypothesis 4.....	58
Hypothesis.....	60
Ancillary Findings.....	61
Supplemental Findings.....	62
CHAPTER V: DISCUSSION OF THE FINDINGS.....	64
Job-Related Burnout and Role Overload.....	66
Job-Related Burnout and Role Conflict.....	67
Job-Related Burnout and Perceived Organizational Support.....	68
Perceived Organizational Support, Role Overload, and Job-Related Burnout.....	68
Perceived Organizational Support, Role Conflict, and Job-Related Burnout.....	68
CHAPTER VI: SUMMARY, CONCLUSIONS, IMPLICATIONS.....	70
RECOMMENDATIONS	
Summary.....	70
Conclusions.....	74
Implications for Nursing.....	75
Recommendations.....	78
APPENDICES.....	79
REFERENCES.....	92

LIST OF TABLES AND FIGURES

1. Theoretical Model for the Study	38
2. Descriptive Statistics of the Study Variables	53
3. Psychometric Properties of the Study Instruments	53
4. Description of Study Instruments	54
5. Subject Demographics and Characteristics	56
6. Correlation Matrix of Study Variables	57
7. Statistics of Moderation Model (POS and RO)	59
8. Statistics of Moderation Model (POS and RC)	60

CHAPTER 1

The Problem

Job-related burnout is a serious psychological phenomenon that can lead to high levels of anxiety, depression, impaired family relationships, somatic complaints, and even suicide (Maslach & Leiter, 1997; Pines & Aronson, 1988; Welch, Medeiros & Tate, 1981). Jeopardizing the health and well-being of those who experience it, job-related burnout is characterized by feelings of emotional exhaustion, the depersonalization of others, and a diminished sense of personal accomplishment (Maslach, 2003; Maslach & Leiter, 1997).

Theorists agree that job-related burnout is the result of chronic stress in the work environment, persisting over a prolonged period of time, with no foreseeable signs of relief (Farber, 1982; Freudenberg, 1975; Maslach, 2003; Maslach & Leiter, 1997). Individuals working in the human services or “caring” professions, including police officers, firefighters, physicians and nurses, social workers, and teachers are most at risk for experiencing job-related burnout (Maslach, 2003; Maslach & Leiter, 1997).

These human service workers, whose numbers total millions of people, perform vital but emotionally draining work, share unique personality traits that led them to choose a career in human services, and are dedicated to a perspective that focuses on the needs of their clients (Pines, Aronson, & Kafry, 1981). Ironically, it is these “caring” personal characteristics, so necessary in the delivery of effective human services, such as empathy, sensitivity, and client-centeredness that are theorized to

contribute, in part, to the increased risk of job-related burnout among these dedicated professionals (Cherniss, 1980; Pines & Aronson, 1988).

Through internalizing client stressors and feeling unable to meet an overwhelming number of client needs, human service providers are posited to be exposed to the chronic stressors that contribute to burnout. Moreover, human service providers may develop unrealistic expectations concerning client outcomes and exacerbate their stressors by devoting an inordinate amount of time and energy to the provider/client relationship that yields them very little in return (Cherniss, 1980; Maslach, 2003; Maslach & Leiter, 1997; Pines, Aronson, & Kafry, 1981).

In addition to personal factors, however, theorists also propose that certain organizational factors are key contributors to job-related burnout (Cherniss, 1980; Maslach, 2003; Maslach & Leiter, 1997; Welch, Medeiros, & Tate, 1980). Subsequently, empirical findings, derived from testing explanatory burnout theory, indicate that it is the organizational factors, in contradistinction to personal traits, that are the more significant contributors to the burnout phenomenon (Schaufeli & Enzmann, 1998).

These organizational or work-related antecedents of burnout include such factors as excessively long work days, a lack of professional autonomy, insufficient resources for the job, excessive demands for productivity, and administrative indifference to, or interference with, their work (Farber, 1982; Maslach, 2003; Maslach & Leiter, 1997; Pines Aronson, & Kafry, 1981). In short, theorists propose that the structure of the work setting and the organization of the workforce have a

primary influence on job-related burnout (Cherniss, 1980; Maslach, 2003; Maslach & Leiter, 1997; Pines, Aronson, & Kafry, 1981).

Additionally, several theorists suggest that these burnout-producing organizational characteristics are more prevalent in large, bureaucratically-oriented institutional facilities, such as hospitals or government facilities, compared to smaller professionally-oriented organizations such as private practices (Flood & Scott, 1987; Pines, Aronson, & Kafry, 1981; Welch, Medeiros, & Tate, 1980). Importantly, theorists propose that large, bureaucratically-structured organizations are characterized by centralized decision-making, hierarchical communication patterns, and a “top-down” coordination of the workforce. This bureaucratic approach, in comparison to a professional approach, centers on tasks and achieves administrative control and coordination of both the work and the workers (Flood & Scott, 1987). Theorists explain that it is this bureaucratic approach to workforce organization, with little opportunity for professional workers to exert influence over important workplace decisions, that produces the chronic stressors and antecedents to burnout (Caplan & Jones, 1975; Elloy, Terpening, & Kohls, 2001; French & Caplan, 1972; Kahn, Wolfe, Quinn, & Snoek, 1964; O’ Driscoll & Beehr, 2000; Pines, Aronson, & Kafry, 1981).

Although theorists posit that role overload (Cordes, Dougherty, & Blum, 1997; Maslach, 2003; Maslach & Leiter, 1997; Pines, Aronson, & Kafry, 1981; Posig & Kickul, 2003; Thompson, Kirk, & Brown, 2005) and role conflict (Cherniss, 1980; Jex, Adams, Bacharach, & Sorenson, 2003; Schaubroeck, Cotton, & Jennings, 1989)

are two key organizationally-influenced contributors to job-related burnout among human service professionals, it has also been theorized that employees are capable of enduring these organizational stressors when they feel appreciated and supported within their organization. Theorists postulate that the presence of organizational support serves as a means to safeguard against the effects of job-related burnout (Brotheridge, 2001; Hobfoll, 2002; Lazarus, 1991; Pines, Aronson, & Kafry, 1981).

Recognizing the negative impact of job-related burnout on the health of human service professionals, there is a growing empirical literature investigating predictors of job-related burnout within these occupational groups. Most of these studies, however, have focused on human service workers employed in staff-level positions. To date, there has been a scant amount of research investigating predictors of burnout among front-line human service managers. Yet, job-related burnout has been identified as a major problem for human service professionals who hold management positions; especially for those working in entry-level or “lower” management roles. Theorists posit that “front-line” managers are at higher risk for burnout compared to persons in upper-level executive management positions, in that executives are traditionally provided enhanced mentorship and organizational supports that are not readily available to individuals in lower level management jobs (Welch, Medeiros, & Tate, 1980). In contrast, a lack of organizational support, coupled with role overload and role conflict renders the front-line human service manager to be at elevated risk for job-related burnout and its subsequent negative impact on health (Maslach, 2003; Maslach, Schaufeli, & Leiter, 2001; Pines &

Aronson, 1988).

Among human service managers, perhaps none are at higher risk for job-related burnout than front-line nurse managers; especially those employed in acute care hospitals (Laschinger, 2004; Wieck, 2004). This occupational group represents individuals in an entry-level or lower level management position who function in predominantly bureaucratically-structured organizations; traits theoretically defined as antecedents to job-related burnout (Caplan & Jones, 1975; Maslach, 2003; Maslach & Leiter, 1997; Pines & Aronson, 1988; Pines, Aronson, & Kafry, 1981; Welch, Medeiros, & Tate, 1980). Moreover, the recent trends toward downsizing and restructuring of hospitals have resulted in a re-conceptualization of the role of nurse manager (Grohar-Murray & DiCroce, 2003; Laschinger, Purdy, Cho, & Almost 2006). This role re-conceptualization has, ironically, been characterized by increased nurse manager workloads, job redesign, role expansion, and an ongoing lack of organizational support for this vital front-line role. Consequently, increased incidences of job-related burnout are being reported within this unique occupational group of managers (Macready, 1998; Maslach, 2003; Maslach & Leiter, 1998; Rudan, 2002; West, Lyon, McBain, & Gass, 2004).

Given the negative impact of job-related burnout on the health of employees, the development of theory-based interventions to prevent or reduce job-related burnout is vital to the practice of occupational health nursing especially within organizations that employ human service professionals. Importantly, burnout theorists propose that job-related burnout can be reduced or even prevented through sufficient

organizational support, including the recognition of accomplishments and contributions. Specifically, theorists posit that organizational support can moderate the impact of organizational stressors on job-related burnout. Despite the elevated risk of job-related burnout among nurse managers, however, there have been no studies that have tested these theoretical propositions in this unique occupational group.

The purpose of this study is to address this gap in the literature by investigating the relationships among role overload, role conflict, organizational support, and job-related burnout in a sample of nurse managers. In so doing, this study will contribute to the development of nursing theory and, potentially, contribute to the practice of occupational health nursing. In addition, findings from this study will also inform hospital executives to establish policies and provide leadership supports that create organizational cultures that are not conducive to job-related burnout.

Statement of the Problem

What are the relationships among role overload, role conflict, perceived organizational support, and job-related burnout in nurse managers working in hospital settings? Does perceived organizational support moderate the effects of role overload and role conflict on job-related burnout in nurse managers?

Subproblems

1. Is role overload positively related to job-related burnout in nurse managers?
2. Is role conflict positively related to job-related burnout in nurse managers?

3. Is perceived organizational support inversely related to job-related burnout in nurse managers?
4. Will perceived organizational support moderate the relationship between role overload and job-related burnout in nurse managers?
5. Will perceived organizational support moderate the relationship between role conflict and job-related burnout in nurse managers?

Definition of Terms

Job-related burnout is theoretically defined as an individual's feeling that he/she is emotionally drained, strained and frustrated by their job of working directly with people (Maslach, 2003; Maslach & Leiter, 1997; Maslach, Schaufeli, & Leiter, 2001). Job-related burnout is operationally defined as the subject's score on the Emotional Exhaustion subscale of the Maslach Burnout Inventory (Maslach & Jackson, 1986).

Role overload is theoretically defined as the inconsistency between activities or tasks demanded of an employee and the time or other resources available for completing these tasks (Bacharach, Bamberger, & Conley, 1990). Role overload is operationally defined as the subject's score on the Role Overload subscale of the Role Hassles Index (Zohar, 1997).

Role conflict is theoretically defined as an incompatibility of job demands that may be imposed by the same source or by different sources (Farber, 1982; Jahawar, Stone, & Kissamore, 2007; Jex, Adams, Bacharach, & Sorenson, 2003; Kahn, Wolfe, Quinn, & Snoek, 1964; Rizzo, House, & Lirtzman, 1970); these demands are inherently incompatible (Cherniss, 1980; Farber, 1983). Role conflict is

operationally defined as the subject's score on the Role Conflict scale of the Role Conflict and Ambiguity measure (Rizzo, House, & Lirtzman, 1970).

Perceived organizational support is theoretically defined as an individual's beliefs that those in the organization care about their well-being, value their contributions (Eisenberger, Huntington, Hutchison, & Sowa, 1986) and appreciate their efforts through sufficient recognition (Eisenberger, Rhoades, & Cameron, 1999; Pines, Aronson, & Kafry, 1981; Rhoades & Eisenberger, 2002). Perceived organizational support is operationally defined as the subject's score on the Survey of Perceived Organizational Support (POS).

Nurse managers are defined as those individuals employed by hospitals and whose job title/category indicates the same. These individuals are also known as first-line managers and are responsible for supervising the work of professional and ancillary staff who provide direct care to patients. They are also responsible for the day-to-day operations of one or more units (Sullivan & Decker, 2005). The nurse manager is responsible for evaluating clinical nursing practice; monitoring the delivery of patient care to ensure compliance with regulatory and professional standards; promoting interdisciplinary, collaborative relationships; providing professional development opportunities for personnel; utilizing fiscal and other resources (Sullivan & Decker, 2005).

Delimitations

The literature indicates that individuals working in institutional settings such as

hospitals, often face issues that contribute to job-related burnout that are unique to these settings (Caplan & Jones, 1975; French & Caplan, 1972; Kahn, 1978; Kleinman, 1999). Moreover, studies also indicate that nurses working in hospitals appear to be particularly prone to job-related burnout (Aiken, Clarke, & Sloane, 2002; Vahey, et al., 2004). Therefore, the sample in this study will be delimited to first-line nurse managers working in hospitals.

Significance of the Study

Nationwide, the problem of job-related burnout is widespread, affects productivity, and costs employers an enormous amount of money through decreased productivity, absenteeism, and employee health impairments (Gray-Toft & Anderson, 1985; Kroposky, Murdaugh, Tavakoli, & Parsons, 1999; Welch, Medeiros, & Tate, 1980). The estimated cost of illness associated with job-related burnout in the United States is \$4.2 to \$60 billion per year (Benton, 2000) with annual costs of approximately \$13,000 per employee regardless of profession (Bruhn, Chesney, & Salcido 1995).

Unfortunately, nurse managers are currently at high risk for job-related burnout. Hospital restructuring efforts implemented over the last 20 years as cost-containment strategies have resulted in a decrease in the number of nurse managers and nurse manager positions. Many nurse managers whose positions were not eliminated through reorganization, nonetheless, left their facilities through voluntary attrition to assume less stressful jobs (Institute of Medicine, 2003). Unfortunately, this recent exodus of nurse managers has further exacerbated the burnout problem as

the remaining nurse managers have now assumed additional responsibilities in an effort to decrease hospital costs and increase efficiency (Gelinas & Manthey, 1997).

These changes have expanded the scope and responsibilities of nurse managers to include not one but several patient care units, as well as the supervision of non-nursing support staff (Aiken, et al., 2001; Sovie & Jawad, 2001). The expanded role and increase workloads associated with hospital restructurings have left many nurse managers more vulnerable to job burnout (Vahey, et al., 2004).

The impact of job-related burnout among nurse managers is multifaceted, affecting individual managers, organizations, patients, and the nurse workforce supply. On an individual manager level, significant health risks are a consequence of job-related burnout (Bruhn, Chesney, & Slacido, 1995; Maslach, 2003; Maslach, Schaufeli, & Leiter, 2001; O' Driscoll & Beehr, 2000; Pines, Aronson, & Kafry, 1981; Terpening & Kohls, 2001; Welch, Medeiros, & Tate, 1981). Empirical studies found that individuals with job-related burnout were at higher risk for developing myocardial infarctions (Appels & Mulder, 1989), experienced elevated levels of cholesterol and triglycerides (Shirom, 1997), and reported an increase in somatic complaints, psychological distress, depression, alcohol and drug abuse, and suicidal ideation (Maslach, 2003; Maslach & Leiter, 1997; Maslach, Schaufeli, & Leiter, 2001; Pines, Aronson, & Kafry, 1981; Welch, Medeiros, & Tate, 1980).

More specifically, individuals employed in management positions experience additional outcomes of job burnout that are unfavorable to their health, such as

gastric ulcers, changes in appetite, skin disorders, chronic musculo-skeletal disorders, allergies and common colds (Maslach & Leiter, 1997; Welch, Medeiros, & Tate, 1980). Behavioral symptoms include depression, emotional outbursts, irritability, decreased self-confidence, diminished levels of morale and self-esteem (Welch, Medeiros, & Tate, 1980).

On an organizational level, job-related burnout in healthcare settings has been found to result in high staff turnover, decreased productivity, decreased job satisfaction, sickness absenteeism, and increased costs of healthcare (Wheeler & Riding, 1994). Moreover, decreased productivity and work performance among nurse managers as a result of job burnout can impact the quality of care that patients receive, as nurse managers are responsible for creating and maintaining systems that promote patient safety and positive patient outcomes (Sullivan & Decker, 2005). According to the Institute of Medicine (2003), specific management processes are critical in keeping patients safe within hospital settings. These practices include (1) “balancing the tension between production efficiency and reliability, (2) creating and sustaining trust throughout the organization, (3) actively managing the processes of change, (4) involving workers in decision making pertaining to work design and work flow, and (5) using knowledge management practices to establish the organization as a learning organization” (pp. 3-4). Burnout among nurse managers can obviously have a negative impact on the effective implementation of these vital practices.

Lastly, burnout among nurse managers can inadvertently contribute to the

escalating nursing shortage. By the year 2020, it is estimated that the registered nurse (RN) workforce will be 20% below the projected requirements (Buerhaus, Staiger, & Auerbach, 2000). According to some estimates, the severity of the shortage is expected to reach as many as 800,000 registered nurses by 2020 (Buerhaus, Donelan, Ulrich, Norman, & Dittus, 2006; U.S. Department of Health and Human Services, 2002). Such shortages will have a devastating impact on the quality and safety of patient care (Aiken, et al., 2002; Institute of Medicine, 2003; Tucker & Edmondson, 2002).

Empirical findings, however, indicate that supportive nurse managers are a critical element in the recruitment and retention of nurses. Research indicates that staff nurses across practice settings consider the presence of a supportive nurse manager to be essential to the support of their professional practice and job satisfaction (Flynn 2003, 2003b; Flynn, Dickson, & Moles, 2007; McClure & Hinshaw, 2002; Thomas-Hawkins, Denno, Currier, & Wick, 2003).

Consequently, the empirical literature also indicates that the presence of a supportive nurse manager is associated with lower nurse burnout, and higher retention among existing staff (Aiken & Sloane, 1997; Clark, Sloane, & Aiken, 2002; Lageson, 2004). Yet, the emotional exhaustion associated with burnout can clearly jeopardize the affected managers' ability to support the nursing staff that report to them, and consequently, contribute to staff nurses' job dissatisfaction and attrition (Boyle, Bott, Hansen, Woods, & Taunton, 1999; Fletcher, 2001).

In summary, job-related burnout impairs the functioning of organizations as well

as the health and well-being of those who experience it. Yet, according to Pender (2002), the promotion of health and well-being among individuals and populations is a primary function of professional nursing practice. Thus, studies that generate knowledge concerning job-related burnout may contribute significantly to nursing practice, as efforts to decrease the incidence of job burnout and minimize the consequences may improve the physical and mental health of individuals who provide vital services to others.

Findings from this study can be used to expand the knowledge of occupational health nursing practice, as nurses play a key role in assessing the work environment for issues that may potentially impair the health and safety of employees, including symptoms of job-related burnout. Additionally, the occupational health nurse can utilize the findings of this study to design and develop a job burnout intervention/initiative that may be used organizationally to decrease the incidence of job-related burnout among healthcare managers.

Knowledge generated from this study may also influence the behaviors and practices of nurse administrators who supervise front-line managers. Key administrative initiatives such as mentoring programs and work redesign may serve to increase organization support for nurse managers in efforts to reduce burnout and its harmful, multi-level consequences.

The theoretical and empirical literature is clear concerning the organizational influences on job-related burnout among human service professionals. There is, however, a paucity of literature testing the relationships between specific

organizational variables and job-related burnout among nurse managers working in hospital settings. Nurse manager burnout can have a negative impact at multiple levels, including a negative impact on the health of individual nurse managers, a negative impact on the retention of the nursing workforce, and a negative impact on the safety and quality of patient care. Therefore, the exploration and testing of these theoretical relationships may provide a greater understanding of the impact of specific organizational variables on the development of job-related burnout in nurse managers and make a significant contribution to nursing theory and research.

CHAPTER 2

Review of the Literature

This research will examine the relationships among role overload, role conflict, organizational support, and job-related burnout in nurse managers working in acute care settings. Theoretical and empirical literature related to these relationships will be presented in this chapter. The first section presents theoretical literature concerning the dependent variable job-related burnout. The second section presents theoretical literature relevant to role overload and empirical support for the relationships between role overload and job-related burnout. Following, theoretical literature related to role conflict and perceived organizational support is presented, after which, empirical literature relative to role conflict, perceived organizational support and job-related burnout is discussed.

Theories of Job-Related Burnout

Job-related burnout has been conceptualized in a variety of ways since appearing in the literature. The term burnout was first used in the 1960s to describe the ill effects of chronic drug abuse, and Freudenberger (1975) later used the term to describe a group of co-workers appearing to be psychologically impacted by their negative work experiences. Freudenberger (1975) notes that at the beginning of the assignment, these individuals were very idealistic, dedicated to their work, and extremely committed to serving the needs of the client. Within a short period of time, these same individuals demonstrated an increased level of exhaustion, exhibited signs of depression, and seemed to display a less caring attitude toward the

clients. As time passed, these symptoms worsened, became more pronounced and were associated with feelings of guilt and diminished self esteem.

However, Freudenberger's (1975) initial conceptualization of burnout focused primarily on the characteristics of individuals prone to burnout. These characterizations included behaviors such as being very dedicated and committed to the clients, working many long hours for very little financial compensation, and ignoring their own needs for the benefit of the job. Additionally, these employees took very few vacations and replaced their social lives with time spent on the job. These individuals also believed that the workplace could not survive unless they were always present. Freudenberger's (1975) subsequent work focused on describing burnout in terms of the individual and the psychological capabilities of this individual to cope with a stressful work environment. Subsequent analyses of the burnout phenomenon ultimately lead to his conceptualization of burnout as a state of physical and emotional depletion resulting from conditions of the workplace.

Cherniss (1980) was among the first to describe job-related burnout within human service settings. Specifically, he defines job burnout as a "psychological withdrawal from work in response to excessive stress or dissatisfaction" (p. 16). The theorist contends that job-related burnout is a transactional process that occurs in three stages. The first stage is characterized by an increase in work demands whereby the individual does not have the necessary resources to meet these demands. The second stage comprises the emotional reaction to this imbalance

between work-related resources and demands that results in feelings of anxiety, tension, fatigue, and exhaustion. The final stage consists of changes in attitudes and behaviors that can be described as emotionally detached and withdrawn from clients and co-workers.

Cherniss (1980) further postulates that factors specific to the organizational design of human service settings contribute to job related burnout. These factors, inherent in bureaucratic organizations, include role overload, role conflict, role ambiguity, and the lack of autonomy experienced by staff. However, the theorist posits that organizational support is a significant factor in reducing the effects of job-related burnout within these human service settings.

Similarly, theorists (Maslach, 2003; Maslach & Leiter; Pines, Aronson, & Kafry 1981) posit that the job burnout experience is characterized by emotional and physical fatigue, feelings of negativity towards clients and co-workers, as well as feelings of helplessness and hopelessness. These theorists define job burnout as a state of physical, emotional, and mental exhaustion that interferes with one's ability to cope with the challenges of the work environment. First, they describe the emotional impact as overwhelming feelings of emotional overload and exhaustion. The emotional exhaustion aspect is accompanied by feelings of anxiety and hopelessness, irritability, guilt, frequent mood swings, and depressive symptoms. In some cases, individuals with burnout may exhibit aggressive behaviors, experience frequent emotional outbursts, uncontrollable crying, negativity, and pessimism. Drug and alcohol abuse has also been associated with job-related burnout (Figley,

1999). Unfortunately, the negativity and pessimism is evident in all interpersonal interactions between the burned out individual and others within the work setting (Cherniss, 1980; Freudenberger, 1975; Maslach, 2003; Pines & Aronson, 1980; Pines, Aronson, & Kafry, 1981; Shirom, 1997).

Theorists further propose that job-related burnout has a negative impact on the physical health of the individual who is affected. They posit that the physical manifestations of the job burnout experience include feelings of physical fatigue and drain. The burned out individual encounters chronic problems with their health including frequent colds, changes in weight and appetite, intense muscle aches and pains, hypertension, and gastric ulcers. In addition, many individuals complain of insomnia as a result of nightmares and negative thoughts related to the work environment (Maslach, 2003; Maslach & Leiter, 1997; Pines & Aronson, 1980; Pines, Aronson, & Kafry, 1981).

As a point of clarification, it should be noted that job-related burnout and stress are two distinct concepts. Ganster and Schaubroeck (1991) contend that job-related burnout is a response to a specific source of stress. Specifically, job-related burnout is a chronic emotional response pattern to a work environment that is extremely stressful and involves high levels of interpersonal contact. Job burnout is the consequence of stress over a long period of time that is unrelieved (Farber, 1982), and can be considered as the last step in the advancement of unsuccessful attempts to deal with various stressors within the workplace (Cordes & Dougherty, 1993; Farber, 1982).

Maslach's (2003; 1976) theory of job-related burnout is the most widely used and empirically tested for explaining the occurrence of the phenomenon among human service employees, including physicians and nurses. According to Maslach, job related burnout is a response to chronic and prolonged stressors in the workplace, and is theoretically defined as an individual's feelings that he/she is emotionally drained, strained, frustrated by their job, and fatigued from working directly with people.

Consistent with other theorists, Maslach explains that factors in the work environment contribute to job-related burnout. She posits that these organizational contributors to burnout include employees' chronic involvement with clients in crisis, increased workload/role overload, a lack of autonomy and control over one's work, strained relations with supervisors and co-workers, ineffective management practices, incompatible organizational and professional values that produce role conflict, and insufficient recognition and appreciation of one's work from the employing organization (Maslach, 2003; Maslach & Jackson, 1986; Maslach & Leiter, 1997; Maslach, Schaufeli, & Leiter, 2001). The theorist further posits that this complex syndrome is characterized by progressive stages of emotional exhaustion, the depersonalization of others, and a diminished sense of personal accomplishment.

Emotional exhaustion is the initial and central component of the job burnout syndrome and is characterized by feelings of emotional and physical drain, overextension and a severe depletion of energy. Employees experiencing emotional

exhaustion have feelings of being emotionally used up, and disturbingly, believe that they have nothing else to give to the client from an emotional standpoint.

Maslach (2003) explains that, over time, emotional exhaustion is followed by depersonalization. Depersonalization is a self-protective mechanism induced by the unresolved, work-related stressors, and is characterized by an individual's detachment or distancing response while interacting with clients and others. It may also manifest as negative, cold, and cynical reactions to various situations. Individuals develop detached, insensitive, and unfeeling responses when dealing with clients, co-workers, and staff.

Lastly, the third phase of job-related burnout is reduced personal accomplishment. This phase is characterized by feelings of inadequacy and doubt about one's ability to make a difference in the lives of clients and to relate to others, including co-workers, in a constructive and helpful manner. During this phase, these individuals feel professionally incompetent and are extremely dissatisfied with their work performance and level of productivity (Maslach, 2003).

Importantly, Maslach (2003), consistent with other theorists (Eisenberger, Rhoades & Cameron, 1999; Pines, Aronson, & Kafry, 1981; Rhoades & Eisenberger, 2002), posit that employees are able to endure the stress of the work environment and prevent job burnout if they perceive that their organization cares about them and demonstrates appreciation for their work performance through recognition and rewards. This organizational support serves as a "powerful buffer against burnout" (Pines, Aronson, & Kafry, 1981, p.118).

In addition to support and recognition, theorists additionally posit that the structure of the work setting has a primary influence on job stress and job-related burnout (Cherniss, 1980). Individuals employed in predominantly bureaucratic organizations, such as hospitals, are particularly at risk for job-related burnout in that bureaucratic organizations are characterized by hierarchical, “top-down” management practices, little employee appreciation, and a generally unsupportive organizational climate (Maslach, 2003; Pines, Aronson, & Kafry, 1981). Lastly, theorists propose that role overload (Maslach, 2003; Pines, Aronson, & Kafry, 1981), role conflict (Cherniss, 1980) and lack of rewards and appreciation for work performed (Pines, Aronson, & Kafry, 1981) are three contributors to job-related burnout among human service professionals, including managers, employed in human service organizations.

In summary, the concept of job-related burnout has evolved over the last several decades. Initial descriptions of job burnout focused on characteristics of the affected individuals as primary contributors to this phenomenon. Subsequent conceptualizations recognized the impact of organizational and job characteristics on burnout. Among theories there is general agreement that job-related burnout is a serious condition that negatively impacts the mental and physical health of human service workers, and that it is initially manifested as a state of emotional exhaustion (Cherniss, 1980; Maslach, 2003; Maslach, Shaufeli, & Leiter, 2001; Pines, Aronson, & Kafry, 1981).

Theories of Role Overload

Role overload is theoretically defined as the inconsistency between activities or tasks demanded of an employee and the time or other resources available for completing these tasks (Bacharach, Bamberger, and Conley, 1990). Role overload is experienced in the workplace when a variety of individuals place legitimate expectations upon a person to perform tasks that are considered “mutually incompatible” (Kahn, Wolfe, Quinn, & Snoek, 1964, p. 20). These expectations may be impossible for the employee to complete, and are unrealistic for them to complete within a specific time frame (Kahn, Wolfe, Quinn, & Snoek, 1964). In short, the demands of the job exceeds the resources needed by the employee to complete the requirements of the job (Bacharach, Bamberger, and Conley, 1990; Maslach, 2003). In addition to having too much work to accomplish, significant levels of interpersonal interactions with clients and employees compound the experience of role overload, particularly for those working in managerial positions (Cordes, Dougherty, & Blum, 1997; Maslach, 2003).

Maslach (2003) defines role overload as a situation in which helping professionals have too many clients and not enough time to service the needs of these clients in a manner that is sufficient and adequate. As a consequence, individuals experiencing role overload spend less time with their clients and only focus on those issues that require immediate attention. This problem-focused model of service delivery creates a situation that not only limits the amount of time providers spend with each client, but also diminishes the quality of service because

less care is being provided. As a result, the provider begins to view the client in a negative manner, because the nature of the interactions between the two parties has been reduced to focusing on problems only. This relationship creates a pattern of emotional overload and strain for the provider, which ultimately leads to emotional exhaustion, the central and core component of the burnout syndrome.

Theorists conclude that in most human service organizations constrained by economic considerations, there is an inclination to establish larger work loads as a consequence of cost/benefit calculations or insufficient staffing. Additionally, the experience of role overload in human services is exacerbated by the imposition of tasks that are high on the priority list for the organization but may be of low priority for the professional staff or the individuals receiving service (Cherniss, 1981; Maslach, 2003; Pines, Aronson, & Kafry, 1981). Individuals experiencing role overload are placed in an untenable situation where failure is inevitable. If they comply with the organizational demand to increase their workload, the quality of service provided will diminish. Conversely, should the individual fail to meet the organizational expectations of the increased workload, their performance will be viewed as inefficient and unproductive (Maslach, 2003; Pines & Aronson, 1988). Maslach (2003) posits that this “mismatch of expectations” (p. 76) strains the relationship between the organization and the human services professional because the organization often places more value on quantity of service over quality of service. Quantitative measures are most frequently used to evaluate the viability of the institution within a particular marketplace (Maslach, 2003).

Role overload, unfortunately, is an inherent part of a complex work environment. Fortunately, role overload may dissipate when an individual becomes familiar with the work role and the organizational structure (Pines, Aronson, & Kafry, 1981). However, feelings of role overload that persist over a period of time is a source of job stress that, if unrelieved, will ultimately lead to job-related burnout (Cordes, Dougherty, & Blum, 1997; Frone, Russell, & Cooper, 1992; Maslach, 2003; Posig & Kickul, 2003; Thompson, Kirk, & Brown, 2005).

In summary, role overload is a primary variable in creating job stress for the individual who experiences it. Regardless of the contributing factors, theorists posit that when human service professionals, including managers, perceive that their work is too voluminous and resources that are available to them are insufficient to meet the requirements of their job, burnout ensues (Cherniss, 1981; Maslach, 2003;

Maslach & Leiter, 1998; Pines & Aronson, 1988). The relationship between role overload and job-related burnout, however, has not been tested in front-line nursing managers.

Role Overload and Job-Related Burnout: Empirical Support

Cordes, Dougherty, & Blum (1997) investigated the relationship between theoretical predictors of job-related burnout and organizational/job characteristics in a sample of 354 human resource managers. Variables such as role overload, client or interpersonal interactions, contingency of rewards, non-contingency of punishment and unmet organizational expectations were studied in relationship to job-related burnout. In particular, role overload was measured using two items from the

Dougherty and Prichard (1985) scale measuring overall role overload. Job-related burnout was assessed using the Emotional Exhaustion scale of the Maslach Burnout Inventory (Maslach and Jackson, 1986). Structural equation modeling was used to test the relationships and as predicted, the researchers found a strong, positive correlation between role overload and emotional exhaustion ($r = .47$, $p < .05$). These findings support the theorized, positive relationship between role overload and burnout.

Similarly, Thompson, Kirk, & Brown (2005) tested a path model of work stress and its affect on a sample of 421 policewomen's functioning in their family environment through a component of burnout, emotional exhaustion. The work role and stressor role overload was measured using the Role Overload Scale from the Occupational Stress Inventory (Osipow & Spokane, 1981). The Emotional Exhaustion subscale of the Maslach Burnout Inventory was used as a measure of burnout. As predicted, the researchers found a strong, positive correlation between role overload and emotional exhaustion ($r = .46$, $p < .05$). These findings support the theorized, positive relationship between role overload and burnout.

Consistent with previous empirical findings, Posig and Kickul (2003) tested a structural equation model of job-related burnout in a sample of 165 individuals employed in non-service occupations enrolled in a part-time Master of Business Administration (MBA) program. A total of 40 participants (24%) were employed in a management capacity and 125 (76%) were employed in various sales and clerical positions. Several job/role demand stressors were included in the model.

Specifically, role overload was measured using the role overload subscale of The Stress Diagnostic Survey (Ivancevich & Matteson, 1983). The Maslach Burnout Inventory was used to measure job-related burnout. As predicted, a strong positive correlation was found between role overload and emotional exhaustion ($r=.51$, $p<.05$). These findings are consistent with those found in previous research investigating this relationship in individuals working in service occupations, and provide empirical support for the theoretical proposition positing a relationship between role overload and job-related burnout.

In another study, Zohar (1997) used hierarchical multiple regression to test the theorized relationship between role overload and job-related burnout in a sample of 145 hospital nurses and their partners. Role overload was measured using the Role Overload subscale of the Role Hassles Index (Zohar, 1997) and job-related burnout was measured using the Maslach Burnout Inventory (Maslach & Jackson, 1986). Findings indicate that role overload was a significant predictor of emotional exhaustion ($B=.26$, $p<.01$).

In summary, these empirical studies tested and support the theorized relationship between role overload and job-related burnout in samples of policewomen, non-managerial human service professional, and managerial and non-managerial professionals not employed in human services. None of these studies, however, tested these theoretical relationships among front-line managers. Furthermore, no research investigating the relationship between role overload and burnout among nurses working in front-line management positions in acute care hospital settings

has been conducted. Research that tests these important theoretical relationships among front-line nurse managers is needed in order to better understand the determinants of burnout in this crucial sector of acute care employees.

Theories of Role Conflict

Role conflict is theoretically defined as an incompatibility of job demands that may be imposed by the same source or by different sources (Farber, 1982; Kahn, 1978). Role conflict occurs when the simultaneous expectations of two or more roles interfere with each other, making the expectations of at least one or more of the roles almost impossible to achieve (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964; Rizzo, House, & Lirtzman, 1970). Role conflict may also be experienced when an individual's value system and ethical conduct is incompatible with that of his/her supervisor or subordinates (Farber, 1982) or when an individual is asked to perform functions that are outside of their professional scope of practice (Jawahar, Stone, & Kisamore, 2007).

Role conflict introduces a level of uncertainty for individuals, as they are unsure whether all of their role requirements are congruent and compatible (Jahawar, Stone, & Kisamore, 2007; Jex, Adams, Bacharach, & Sorenson, 2003). Employees experiencing role conflict may come to believe that they cannot successfully perform their job. As a result, these individuals may experience incompatible or irreconcilable expectations associated with multiple roles, placing them at risk for psychological discomfort and negative emotional reactions, such as emotional exhaustion (Schaubroeck, Cotton, & Jennings, 1989).

Theorists posit that individuals may attempt to cope with the competing demands of role conflict by working longer hours or by taking on a greater workload to ensure that the conflicting role requirements are met (Jex, Adams, Bacharach, & Sorenson, 2003). However, other theorists postulate that negative outcomes are likely to occur should the employee experience chronic, unresolved role conflict. These outcomes include increased absenteeism (Gray-Toft & Anderson, 1985), a lack of commitment to the organization on the part of the employee (Kroposki, Murdaugh, Tavakoli, & Parsons, 1999), psychological strain (O'Driscoll & Beehr, 2000), and job-related burnout (Elloy, Terpening, & Kohls, 2001; Maslach, Schaufeli, & Leiter, 2001; Piero, Gonzalez-Roma, Tordera, & Manas, 2001).

As healthcare environments, such as hospitals, become more complex and integrated, changes in role expectations and increased work demands will almost inevitably lead to role conflict (Kleinman, 1999). Role conflict among nurses in acute care settings may stem from multidimensional roles that are produced when organizational and clinical dimensions, essential to service delivery, merge at the point of care. The nurse manager is responsible for the competing roles of organizational representative and patient advocate. These two vital roles may frequently be in conflict, as nurse managers try to enforce hospital policies and processes that may not be congruent with patients' needs (Ashforth, Kreiner, & Fugate, 2000; Valcour, 2000). Moreover, the organization's expectations of the front-line nursing manager in his or her role as organizational representative may likewise conflict with their own professional values or the needs of their staff, especially as it relates to

staffing levels and work schedules (Benson & Ducanis, 1995; Clarke, 2001).

In summary, the theoretical literature is clear in describing role conflict as a primary variable in creating employment stress for those who experience it.

Unresolved role conflict occurring over a period of time contributes to psychological strain, increased absenteeism, decreased organizational commitment and job-related burnout (Elloy, Terpening, & Kohls, 2001; Maslach, Schaufeli, & Leiter, 2001; O'Driscoll & Beehr, 2000; Piero, Gonzalez-Roma, Toderá, & Manas, 2001). More research is needed to test the effects of role conflict among various populations employed in a variety of work settings. Although much work has been done investigating this relationship in individuals working in staff-level positions, this relationship has not been tested in individuals working in front-line management positions.

Role Conflict and Job-Related Burnout: Empirical Support

Research has identified role demands (role conflict, role ambiguity, role overload) as antecedents to job-related burnout (Lee & Ashforth, 1996; Peeters, Montgomery, Bakker, & Schaufeli, 2005). Lee and Ashforth (1996) conducted a meta-analysis of the correlates of the three dimensions of job-related burnout. This meta-analysis examined the relationships between work demands, including role conflict, on job-related burnout in 61 studies included in the meta-analysis. The studies used covered 33 correlates based on 56 independent samples. The sample sizes ranged from 34 to 906 and most of the studies sampled human service providers such as teachers, nurses, counselors, and police officers working in staff-

level positions. In addition, only those studies using the Maslach Burnout Inventory (1986) to measure job-related burnout was included. The meta-correlations found among the three burnout dimensions support the theoretical relationship between role demands and job-related burnout. Specifically, the findings indicate that role conflict was strongly related to emotional exhaustion ($r=.42$, $p<.001$).

Consistent with the previous study, Piko (2005) investigated the interrelationships among job-related burnout, role conflict and job satisfaction in a sample of 201 health care staff, 55.7% of whom were registered nurses. The Maslach Burnout Inventory (MBI) was used to measure job-related burnout. In this study, the internal consistency was measured using Cronbach's alpha with a reliability coefficient of 0.84 for the emotional exhaustion subscale. Role conflict was ascertained by four items measuring conflicting demands, unreasonable job pressures, and incompatible requests from people in the work environment (Fenlason & Beehr, 1994). The internal consistency, using Cronbach's alpha, had a reliability coefficient of .66. Findings of the study revealed that role conflict was positively associated with emotional exhaustion ($r= .35$, $p<.001$), thus supporting the theorized, positive relationship between role conflict and burnout.

Piero, Gonzalez-Roma, & Toderia (2001) investigated the effects over time of three role stress variables, including role conflict, on emotional exhaustion in a sample of 1,302 health care professionals (family physicians, pediatricians, nurses, social workers, psychologists and psychiatrists) Role conflict was measured using the 8-item Role Conflict Scale (Rizzo, House, & Lirtzman, 1970). Job-related

burnout was measured using the Emotional Exhaustion subscale of the Maslach Burnout Inventory (1986). At time 1, role conflict was positively correlated with emotional exhaustion ($r=.45, p<.001$). At time 2, role conflict was again positively correlated with emotional exhaustion ($r=.31, p <.001$). Findings support the theoretical proposition that role conflict is associated with job-related burnout. However, no data was provided to indicate differences between groups of professionals on variables tested.

In summary, there is empirical evidence that supports the theoretical relationship between role conflict and job-related burnout in samples of human service providers working in staff-level positions. None of these studies tested the theorized relationship in individuals working in positions outside of human services or in individuals working in management positions. Furthermore, no research investigating the relationship between role conflict and burnout among nurses working in front-line management positions in hospital settings has been conducted. Additional research examining this relationship in employees holding management positions is needed to gain a greater understanding of this phenomenon.

Theory of Perceived Organizational Support

Perceived organizational support is theoretically defined as an employee's beliefs concerning the extent to which the organization values their contributions and cares about their well-being (Eisenberger, Huntington, Hutchison, & Sowa, 1986). Perceived organizational support increases the employee's level of commitment to the organization and their expectations that hard work and greater

effort toward meeting the goals set forth by the organization will be rewarded (Eisenberger, Huntington, Hutchison, & Sowa, 1986).

The level of perceived organizational support is influenced by factors such as fairness/procedural justice, supervisor support, and organizational rewards and job conditions (Rhoades & Eisenberger, 2002). According to Greenberg (1990), procedural justice concerns the fairness with which resources are distributed among employees. The process of resource distribution and the decisions concerning the distribution have a significant impact on perceived organizational support because it indicates the level of concern for employees' welfare (Shore & Barksdale, 1998).

The level of supervisory support is also a critical influence on perceived organizational support. Because supervisors function in the role of agents of the organization, the employee views their favorable or unfavorable interactions with them as an indicator of the organization's support (Eisenberger, Huntington, Hutchison, & Sowa, 1986). In addition, employees understand that a supervisor's evaluations of subordinates is communicated to executive management personnel, which further contributes to the employees' association of supervisor support with perceived organizational support (Rhoades & Eisenberger, 2002).

Organizational rewards are associated with perceived organizational support as favorable opportunities for rewards and recognition serve to communicate positive feedback concerning the employees' contributions to the goals and objectives of the organization (Rhoades & Eisenberger, 2002). In addition, workplace conditions such as job security, autonomy, and training also contribute to perceived organizational

support (Allen, 1995; Eisenberger, Rhoades, & Cameron, 1999; Wayne, Shore, & Liden, 1997).

Interestingly, perceived organizational support reduces stressful situations in the workplace as it increases the employees' confidence to deal with specific role demands such as role overload and role conflict (Lazarus, 1991). Similarly, George, Reed, Ballard, Colin, & Fielding (1993) suggest that perceived organizational support is an indication that physical and emotional resources are available as needed to help employees deal with a demanding work environment. In addition, theorists postulate that perceived organizational support could reduce role stress as well as buffer the effects of stress due to job role and job demand on job-related burnout (Brotheridge, 2001; Hobfoll, 2002; 1989; Lazarus, 1991).

In summary, perceived organizational support is an important determinant of an employee's level of commitment to an organization. Perceived organizational support plays an important role in lessening work place stressors and the potential for job-related burnout (Brotheridge, 2001; Hobfoll, 2002; 1989; Lazarus, 1991; Rhoades & Eisenberger, 2002).

Perceived Organizational Support and Job-Related Burnout: Empirical Support

Jawahar, Stone, & Kisamore (2007) studied the effects of individual differences in political skill and perceptions of organizational support on job-related burnout and whether perceived organizational support moderated the relationship between role conflict and job-related burnout in a sample of 120 professional employees. Role conflict was measured using an 8-item scale (Rizzo, House, and Lirtzman,

1970), perceived organizational support was measured using the 17-item Survey of Perceived Organizational Support Scale (Eisenberger, Huntington, Hutchison, & Sowa, 1986) and job-related burnout was measured utilizing the Emotional Exhaustion scale of the Maslach Burnout Inventory (MBI) (Maslach & Jackson, 1986). Role conflict was significantly related to emotional exhaustion at low levels of perceived organizational support ($r = .02$, $p < .05$) but not at high levels of perceived organizational support ($r = .00$, $p = .51$), thus indicating that organizational support reduces the effect of role conflict on emotional exhaustion. These findings support the inverse, theoretical relationship between organizational support and burnout.

In a recent study, Laschinger, Purdy, Cho, and Almost (2006) investigated the antecedents and consequences of perceptions of organizational support in a sample of 346 first line nurse managers working in acute care hospitals. Seven self-reported standardized measures were used in this study, measuring variables such as organizational characteristics, personal characteristics, attitudes, performance, and health outcomes (i.e. physical symptoms, energy level, and emotional exhaustion). Perceived organizational support was measured using the POS (Eisenberger, Huntington, Hutchison, & Sowa, 1986). The Maslach Burnout Inventory General Survey (MBI-GS) (Maslach, & Jackson, 1996) was used to measure burnout. Fifty eight percent of the managers in this study experienced high levels of job-related burnout, (emotional exhaustion scores > 3.0 ; mean scale score 3.19, range 0-6) and there was a strong inverse relationship between emotional exhaustion and perceived

organizational support ($r = -.39, p < .05$), providing empirical support for this theorized relationship.

Similarly, Cropanzano, Howes, Grandey, & Toth (1997) examined the effects of perceived organizational support and organizational politics on work behaviors, attitudes, and stress in a sample of 185 employed undergraduate students in a large public western university. Perceived organizational support was measured using the POS (Eisenberger, Huntington, Hutchison, & Sowa, 1986) and burnout was measured using a self-report measure developed by Pines and Aronson (1988).

Other variables were examined using various self-report measures. As predicted, perceived organizational support was inversely correlated with burnout ($r = -.39, p < .05$), providing empirical support for this theorized relationship.

In summary, empirical evidence supports the negative relationship between role conflict and perceived organizational support. In addition, the empirical literature lends support to the theoretical literature that perceived organizational support may moderate the relationship between specific role stressors (role overload, role conflict) and job-related burnout. There were no studies, however, that fully tested a moderation model, and no studies that investigated the association between role conflict, role overload, perceived organizational support, and job-related burnout in nurse managers.

Theoretical Rationale

Job-related burnout is a consequence of chronic, unmediated stress within the work environment (Farber, 1982; Maslach, 2003; Maslach & Leiter, 1998; 1997).

Maslach, Schaufeli, & Leiter (2001) postulate a positive relationship between role stressors such as increased (1) workload/role overload, (2) role conflict, and job-related burnout.

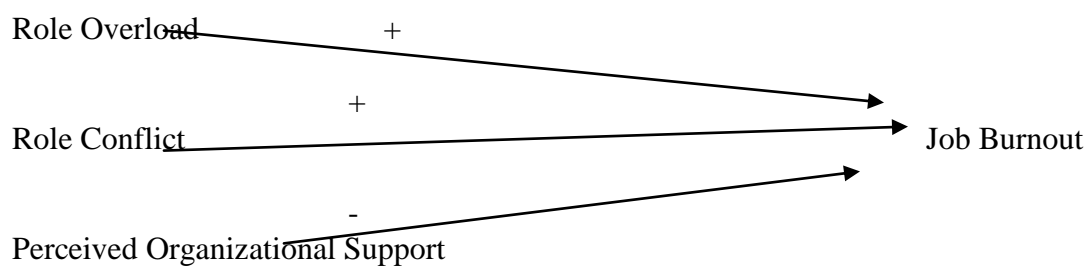
Perceived organizational support is the employees' belief that the organization cares about their welfare and appreciates their contributions to the organization (Eisenberger, Huntington, Hutchison, & Sowa, 1986). Perceived organizational support is theorized to have an inverse relationship between specific work stressors such as role conflict and role overload and job-related burnout (Brotheridge, 2001; Hobfoll, 2002; 1989; Lazarus, 1991). Theorists also postulate that organizational support may reduce the stress caused by role overload and conflict as well as moderate the effects of role overload and role conflict on job-related burnout (Brotheridge, 2001; Hobfoll, 2002; 1989; Lazarus, 1991; Pines, Aronson, & Kafry, 1981).

The following hypotheses will be investigated in nurses working in front-line management positions who work in acute care settings:

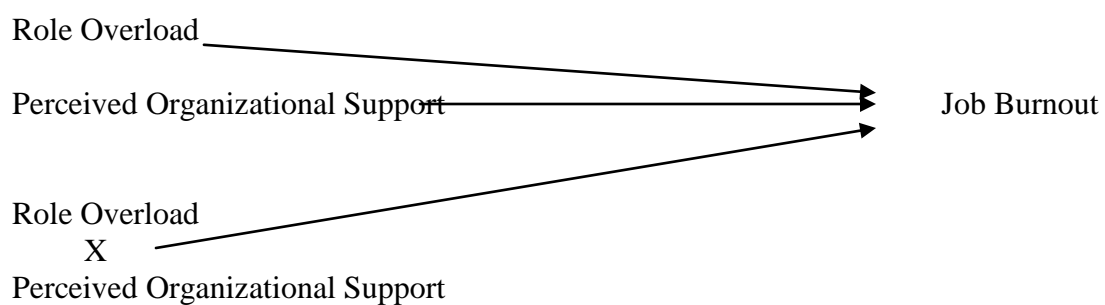
1. Role overload is positively related to job-related burnout in nurse managers.
2. Role conflict is positively related to job-related burnout in nurse managers.
3. Perceived organizational support is inversely related to job-related burnout in nurse managers.
4. Perceived organizational support moderates the effect of role overload on job-related burnout in nurse managers.

5. Perceived organizational support moderates the effect of role conflict on job-related burnout in nurse managers.

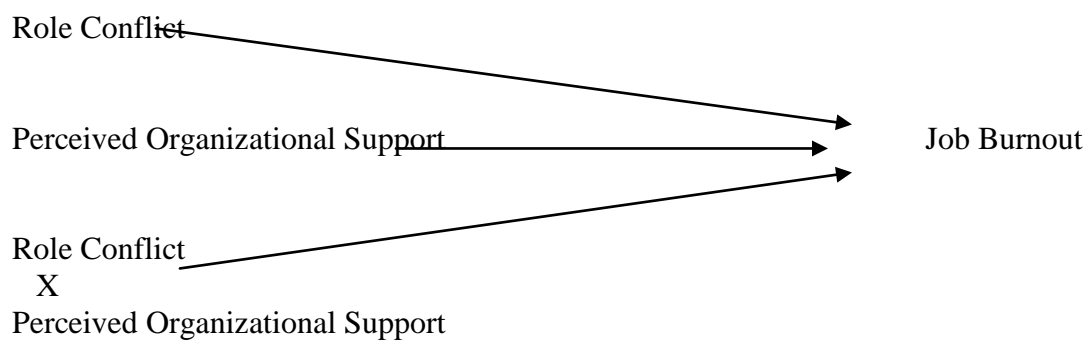
Correlates of Job-Related Burnout in Nurse Managers Working in Hospitals



Moderational Model (A)



Moderational Model (B)



CHAPTER 3

Methods

This chapter will describe the research design for this study including the research setting, sampling methods and sample, the instruments, the procedure for data collection and analysis. This study used a descriptive, correlational research design to investigate the relationships among job-related burnout, role overload, role conflict, and perceived organizational support. Consistent with the assumptions of a correlational design (Brink & Wood, 1998), the variables were examined as they naturally exist and without any manipulation.

Research Setting

The subjects were recruited through the use of a mailing list of registered nurses currently employed as nurse managers in hospital settings in the United States. A list of names of persons meeting these criteria, who are subscribers/purchasers of professional nursing products, was purchased from a publishing company in the northeastern region of the United States. An instruction sheet was included in the study packet to advise the nurse managers to set aside 20 minutes of uninterrupted time to complete the surveys.

Sampling Methods

The publishing company maintains a mailing list of individuals subscribing to the various nursing journals and other merchandise of interest to professional nurses. The entire list is available for purchase, however, there is a 5,000 name minimum purchase requirement. A mailing list of 5,000 names and addresses was

ordered, as well as other data most relevant to this study including, employment site (hospital) and area of responsibility. Names and addresses were selected by the sales manager. The publishing company requires that a sample of the information being sent by the investigator to the potential participants be submitted with the order. A copy of the survey cover letter was submitted, which satisfied this requirement.

To assure an adequate number of responses, the investigator selected 500 nurse managers (10%) from the mailing list of 5,000 names and addresses. In addition, a systematic sampling method was used to select the names and addresses from the mailing list. Systematic sampling involves the selection of every kth case from a particular list or group (Polit & Beck, 2004). For this study, every tenth name from the list of 5,000 names was selected until 500 names were selected.

Sample

Power analysis for Pearson correlation and multiple regression procedures was used to determine the sample size. In previous research, moderate effect sizes ($r = .30$) were found for the relationships between job-related burnout, role overload, role conflict, and perceived organizational support (Cordes, Dougherty, & Blum, 1997; Cropanzano, Howes, Grandey, & Toth, 1997; Laschinger, Purdy, Cho, & Almost, 2006; Lee & Ashforth, 1996; Piero, Gonzalez-Roma, & Toderro, 2001; Piko, 2005; Posig & Kickul, 2003; Thompson, Kirk, & Brown, 2005; Zohar, 1997). A sample size of 88 was needed to obtain a power of .80 ($\alpha = .05$) for a Pearson correlation calculation between two variables. Using a moderate effect size ($R^2 =$

.13), three predictor variables (role overload, role conflict, and perceived organizational support), and a significance of 0.05, the minimum required sample is 77 subjects to obtain a power of .80 in a multiple regression analysis (Cohen, 1988). To assure sufficient power for all statistical analysis procedures, the targeted sample size was 88 subjects. The convenience sample was drawn from a list of registered nurses (RNs) who work as nurse managers in acute care settings, and who are customers of a publishing company. Individuals not meeting the criteria were excluded. A total of 240 surveys were returned, (48% response) and 96 of these surveys met the inclusion criteria for the study.

Instruments

Maslach Burnout Inventory Emotional Exhaustion Subscale

The Maslach Burnout Inventory Emotional Exhaustion subscale (MBI-EE) is the most frequently used indicator, or measure, of job-related burnout among researchers (Aiken, Clarke, Sloane, Sochalski, & Silber, 2002). It is a 9-item self-report tool designed to measure the extent to which respondents feel emotionally drained, used up, and overextended by their work (Maslach & Jackson, 1986). A sample item includes: "I feel like I'm at the end of my rope". Each item is scored on a scale of 0 to 6, based on the frequency with which these symptoms occur. Scores can range from 0 to 54. Higher scores indicate higher levels of experienced burnout. Maslach and Jackson (1986) investigated the psychometric properties of the MBI-EE subscale. Construct validity of the Maslach Burnout Inventory was examined in a sample of 1,025 individuals from various service occupations such as

police officers, nurses, agency administrators, social workers, and teachers. Using principal components analysis with varimax rotation, three factors emerged with an eigen value greater than one. Emotional Exhaustion, the first factor (9 items), had item loadings ranging from .54 to .84. Total variance data as well as item to total correlations were not reported. Construct validity of the MBI-EE was also supported in a sample of 1,160 front-line nurse managers in that job-related burnout, measured by the MBI-EE, was associated in the theoretically expected direction with job dissatisfaction and intent-to-leave (L. Flynn, personal communication).

In the same sample, Maslach & Jackson (1986) established convergent validity by analyzing correlations between the MBI-EE subscale scores and behavioral ratings made by persons who knew the respondents well, including co-workers and spouses. The co-workers' and spouses' ratings were significantly and positively correlated with the respondents' own ratings of emotional exhaustion. Within the workplace, individuals rated by their co-workers as being emotionally drained ($r=.28, p<.05$) and physically fatigued ($r=.42, p<.001$) as a result of the job scored higher on the emotional exhaustion subscale. Police officers who obtained a score that indicated a high level of emotional exhaustion were rated by their spouses as angry ($r=.34, p<.001$), tense or anxious ($r=.27, p<.001$), complained about their workplace ($r=.26, p<.001$) and experienced physical exhaustion ($r=.20, p<.01$).

Internal consistency reliability of the MBI-EE subscale was established with a Cronbach's alpha coefficient of .88 in a sample of 137 childcare providers (Boyd & Schneider, 1997), .84 in a sample of 450 healthcare staff (Piko, 2005), .89 in a

sample of 820 registered nurses working at the staff level in acute care settings (Vahey, et al., 2004), .91 in a sample of 10,319 nurses working in adult acute care hospitals in the United States, Canada, England, and Scotland (Aiken, Clarke, & Sloane, 2002), and .91 in a sample of 1,160 front-line nurse managers working in various healthcare settings (L. Flynn, personal communication). Further evidence of reliability is reported from data obtained on test-retest reliability of the MBI-EE subscale. In a sample of graduate students in social welfare and health service administrators, the test-retest reliability was .82 taken in intervals of 2 to 4 weeks.

In summary, reliability and validity of the MBI-EE subscale has been established in samples of service workers in various occupations such as nurses, nurse managers, police officers, teachers, social workers, and agency administrators. The tool is considered to be valid and reliable for use in nurse managers working in hospital settings.

Role Conflict and Ambiguity Scale

The Role Conflict and Ambiguity Scale is the most widely used measure of role conflict and role ambiguity, and this scale was derived from Role Theory (Kahn, Wolfe, Quinn, & Snoek, 1964). This study will use the Role Conflict Subscale (RCS), which consists of 8 items designed to measure the extent to which respondents experience role conflict in their work settings (Rizzo, House, & Lirtzman, 1970). Examples of the items include: "I receive incompatible requests from two or more people" and "I receive assignments without adequate resources to complete them". Responses are scored on a 7-point Likert scale ranging from 1 to 7

based on whether these situations occur in their workplace. Scores can range from 8 to 56, with higher scores indicating higher levels of role conflict.

Rizzo, House, & Lirtzman (1970) established construct validity of the RCS using an image covariance method and rotated using a varimax criterion, in two samples. Both samples were comprised of salaried managerial and technical employees, excluding salesman, first level foreman, and clerical personnel. The total number of participants from both samples was 298. Based on the results, factor loading values were a minimum of .30 and role conflict (9 items) explained 32% of the variance.

Reliability data from the initial sample was not available. However, subsequent use of the RCS has yielded a coefficient alpha of .80 in a sample of 152 graduate students working in managerial capacities (Jex, 1999), a coefficient alpha of .80 in a sample of 121 college students enrolled in an extended degree program in a university (Fortunato, Jex, & Heinisch, 1999), and a coefficient alpha of .78 in a sample of 63 employees working in a management capacity in a large university (Schaubroek, Ganster, Sime, & Ditman, 1993).

In summary, the RCS is the most widely used tool to measure role conflict. Reliability and validity has been established in various groups including college students, part-time graduate students working full-time as managers, and individuals working as managers in a university setting. Since the reliability and validity of the RCS has been well established for use in individuals working in a management capacity, it is concluded that the instrument has acceptable reliability and validity

for use in this study.

Role Hassles Index Role-Overload Subscale

According to Zohar (1997), development of the Role Hassles Index (RHI) was derived from burnout theory (Maslach & Jackson, 1986) which specifies that burnout results from stressors in the workplace, including role overload. The Role Overload Subscale (RHIHOS) of the Role Hassles Index will be used to measure role overload in this study (Zohar, 1997). The RHIHOS is a 7 item self report scale designed to measure an episode of role overload in the workplace within the past 2 weeks. Each event is rated as to how emotionally or physically disruptive it was on the day it occurred using a 3 point Likert scale where 1= slightly disruptive, 2=quite disruptive, and 3=very disruptive. Scores range from 7 to 21 with higher scores indicating higher levels of role overload. Items include “Had too much or too many things to take care of “ and “Had difficulty in completing a task due to bureaucratic constraints”.

Zohar (1997) established content validity of the RHIHOS by having individuals with extensive work experience and formalized management training review the items. These individuals were asked to describe the hassles that would likely occur as a result of the items on the list. After removing overlapped items and other items that were unrelated to role conflict, the final list of 7 events comprised RHIHOS.

Construct validity for the RHIHOS was established as a result of a factor analysis of the entire instrument, the Role Hassles Index (RHI). Factor analysis, using principal components analysis with varimax rotation, in a sample of 161 hotel

employees in Western Canada, revealed a three-factor solution with items comprising the RHIHOS emerging as Factor 2 with an eigenvalue of 1.65. Criterion-related validity of both the RHI and the RHIHOS were also assessed using the same sample, by correlating scores on the RHI and its subscales with Smith and Ellingsworth's cognitive appraisal dimensions. Correlations were obtained between scores on the two measures. Specifically, the RHIHOS had a correlation of .25 ($p < .001$) with the appraisal level of effort subscale.

Internal consistency reliability was established for the RHIHOS in the initial sample of 161 hotel employees with an coefficient alpha of .77. Subsequent use of the RHIHOS in a sample of 145 hospital nurses and their partners yielded a coefficient alpha of .82.

In summary, the reliability and validity of the RHIHOS has been demonstrated in samples of hotel employees and nurses working in hospital settings. These published reports of its psychometric properties indicate that the instrument has acceptable reliability and validity for use in this study.

Survey of Perceived Organizational Support

The Survey of Perceived Organizational Support (SPOS) is a 36-item, self-report measure of the construct of perceived organizational support (Eisenberger, Huntington, Hutchison, & Sowa, 1986). The instrument is measured on a seven point summated rating scale, ranging from strongly agree (7) to strongly disagree (1), to indicate the degree to which respondents agree with the statements. Scores can range from 36 to 252; higher scores indicate higher levels of perceived

organizational support. Sample items include “The organization values my contribution to its well-being” and “ The organization fails to appreciate any extra effort from me”. Item numbers 3, 6, 7, 11, 12, 14, 15, 16, 17, 19, 22, 23, 26, 28, 31, 32, and 34 will be reverse-coded before scoring.

Eisenberger, Huntington, Hutchison, & Sowa (1986) established construct validity using principal components factor analysis with varimax rotation, and two factors emerged (Factor 1; Perceived Support and Factor 2; Minor Factor) in a sample of 361 individuals employed as white collar workers and secretaries, credit bureau clerical workers, telephone company line workers, bookstore bookkeepers and clerks, law firm secretaries, high school teachers, financial trust fund employees, and postal clerks. The Perceived Support factor accounted for 93.9% of the variance and a possible minor factor (Factor 2) accounted for only 6.1%. The factor loadings for all 36 items of Perceived Support ranged from .43 to .84 compared to the second factor with ranges of -.22 to .35.

Reliability of the SPOS was established by Cronbach’s alpha of .97 using the same sample of 361 individuals employed in various services occupations (Eisenberger, Huntington, Hutchison, & Sowa, 1986). Subsequent use of the SPOS yielded a coefficient alpha of .94 in a sample of 185 students working part-time (Cropanzano, Howes, Grandey, & Toth, 1997), .91 in a sample of 346 first-line nurse managers working in an acute care setting (Laschinger, Purdy, Cho, & Almost, 1996) and .94 in a sample of 143 working women with pre-school aged children.

In summary, the Survey of Perceived Organizational Support has demonstrated reliability and validity in various populations including teachers, secretaries, working women with children, and front-line nurse managers working in hospital settings. Therefore, it is concluded that the instrument has acceptable reliability and validity for use in this study.

Demographics Questionnaire

The Demographics Questionnaire was developed for this study. It is designed to collect data on the participant such as age, gender, ethnicity, level of educational preparation, type of hospital and nursing unit where the participant works as a front-line manager.

Procedure for Data Collection and Analysis

Using a Tailored Design Method (Dillman, 2007), data were collected from the participants via a survey mailed to their home. The Tailored Design Method (TDM) involves the use of multiple communications or contacts with the respondent in an effort to maximize response rates. The use of this method has resulted in response rates ranging from 58% to 78%. In accordance with the TDM, participants will receive a study packet by first class mail in the following order: (1) a detailed cover letter explaining the study and the importance of a response; (2) a study inclusion form; (3) the Role Conflict Scale; (4) the Role Overload Subscale of the Role Hassles Index; (5) the Survey of Perceived Organizational Support; (6) the Maslach Burnout Inventory-Emotional Exhaustion Subscale, and (7) a stamped envelope addressed to the investigator for the return of the survey packet. The order

of the survey packet is consistent with the direction of Maslach's (2003) theory of job-related burnout. (*Appendices A, B, C, D, E, F, G*)

One week after the initial survey packet is mailed, a reminder/thank you letter or postcard was sent to the participants (*Appendix H*). A record of non-responders was maintained by the investigator, and a second survey mailing was sent to non-responders three weeks after the initial contact. If needed, a final contact was made seven weeks after the first study materials were issued, to those individuals who were unresponsive to the previous contacts.

Human Subjects Protection

This study was submitted to the Institutional Review Board of Rutgers, The State University of New Jersey to ensure that the rights of human subjects are protected prior to data collection. There is no more than minimal risk to subjects participating in this research where the magnitude of harm or discomfort anticipated are not greater, in and of themselves, than those ordinarily encountered in daily life. Survey questionnaires were mailed to the participants' homes along with a letter explaining the purpose of the study. In the letter, participants were informed that participation in the study involves no risk, is confidential, and voluntary. They were also informed that their completion of the questionnaires will serve as their consent to participate. Potential participants were given the name and contact information of the investigator, as well as the contact information for the Rutgers University Institutional Review Board (IRB).

The investigator maintains a computer list of participants' names, addresses,

and code numbers. The computer files are password protected, and only the investigator will have access to the password. Data collected from this study was entered into a computer data base (SPSS). Computer files were backed up onto a CD and the CD is maintained in a locked cabinet. Only the investigator has access to the cabinet.

Data collected from this study that is published or presented will be reported only as grouped data, and participants will not be identified by name. Computer files will be deleted and CDs will be destroyed after completion of the research study and the 3 year mandatory IRB data maintenance period and the returned surveys will be shredded.

Data Analysis Plan

Descriptive statistics were used to analyze the data that describes characteristics of the sample. These characteristics include age, gender, ethnicity, highest educational preparation, the type of hospital and nursing unit where the participant works as a front-line manager. Pearson's rank correlation was used to examine the interrelationships between study the variables. Multiple regression was used to test hypotheses one through five, as well as the two moderation models. The level of significance at which the research hypotheses were tested is .05.

A two-step hierarchical multiple regression approach was used to test the moderation models. According to Bennett (2000), a moderating variable is a predictor variable that affects the direction and strength of the relationship between other predictor variables and outcome variables within a study. Moderator variables

help to further explain the relationship between predictor and outcome variables. In the first step, the predictor (role conflict) and the moderator (perceived organizational support) were entered simultaneously to predict the dependent variable (job-related burnout). Unlike testing a mediator, the independent variables do not have to be significant predictors of the dependent/outcome variable to test for an interaction (Bennett, 2000). In the second step, the interaction term (Role Conflict x Perceived Organizational Support) was entered separately. The interaction term indicates a combined relationship between the two independent variables which explains the additional variance in the dependent variable that is not explained by either variable alone. A moderating effect occurs if the interaction term explains a statistically significant amount of the variance in the outcome variable (Bennett, 2000).

The same method was used to test the second moderation model with the predictor variables role overload (predictor) and perceived organizational support (moderator). In the first step, role overload and perceived organizational support were entered simultaneously to predict the dependent variable job-related burnout. In the second step, the interaction term (Role Overload x Perceived Organizational Support) was entered separately.

CHAPTER 4

Analysis of the Data

The purpose of this study was to examine the relationships among role conflict, role overload, perceived organizational support, and job-related burnout in nurse managers working in hospital settings. A convenience sample of 96 nurses identifying themselves as nurse managers working in acute care facilities participated in the study. The following instruments were used: (1) Demographics Questionnaire developed by the investigator for this study assessed age, gender, race, hospital type, type of unit, number of years working in current position, educational preparation, and Magnet hospital designation; (2) job-related burnout was measured by the Maslach Burnout Inventory-HSS (Maslach & Jackson, 1986); (3) role overload was measured by the Role Hassles Index (RHI)/ Role overload subscale (Zohar, 1997); (4) role conflict was measured by the Role Conflict Scale (Rizzo, House, & Lirtzman, 1970); and (5) perceived organizational support was measured by the Survey of Perceived Organizational Support (SPOS) (Eisenberger, Huntington, Hutchison, & Sowa, 1986). Analysis of the data from this study is presented in this chapter.

Statistical Description of the Study Variables

Descriptive statistics and coefficient alphas for the four study variables are presented in Tables 1 and 2 respectively. The reliabilities of the instruments used in this study were calculated for each instrument. According to Cohen et.al (2003), a coefficient alpha of .70 or above is an acceptable level of reliability. For this study,

the MBI-HSS had a reliability of .92; the RHI .89; the RC .89; and the SPOS .95.

Table 1

Descriptive Statistics of the Study Variables

<u>Variable</u>	<u>Mean</u>	<u>SD</u>	<u>Range</u> (<u>minimum</u> & <u>maximum</u>)	<u>Median</u>
<u>MBI</u>	33.18	12.11	0-54	33.0
<u>RC</u>	33.03	10.59	8-56	35.0
<u>RHI</u>	12.16	4.283	7-21	12.0
<u>SPOS</u>	129.02	36.03	36-252	132.5

Table 2

Psychometric Properties of Study Instruments

	MBI	RHI	RC	SPOS
Cronbach's alpha	.92	.89	.89	.95

The data for this study was managed through the design and implementation of a data analysis plan (Polit & Beck, 2004). The first phase of the plan involved selecting the statistical software package, Statistical Package for the Social Sciences (SPSS), version 16.0 for Windows, (SPSS, Inc., 2007) and logging in all returned surveys according to pre-assigned identification numbers. Each returned survey was reviewed for completeness.

The data were coded and entered into the computer for verification and cleaning, as recommended by Polit & Beck (2004). Data cleaning and verification

involved inspecting the data for outliers and other irregularities. Three outliers were identified in the data, which were a result of data entry errors. These outliers were noted by viewing the scatter plots for each study variable.

A codebook was created of the data. The codebook included the data set, both the original and cleaned set, and the computer copies of all statistical analyses, syntax, and output information.

Data quality was assessed by evaluating the study variables for extreme skewness, variability, as well as for ceiling and floor effects (Polit & Beck, 2006). Frequency tables and histograms for all study variables were assessed for normal distribution using visual shape of the distribution, skewness , and kurtosis values. Scores on the MBI-HSS were positively skewed (.17, *SE* .25) with negative kurtosis (-.82, *SE* .49); RC scores were negatively skewed (-.25, *SE* .25) with negative kurtosis (-.84, *SE* .49); RO scores were positively skewed (.41, *SE* .25) with negative kurtosis (-1.024, *SE*.49); POS scores were negatively skewed (-.46, *SE* .25) with positive kurtosis (.62, *SE* .49). Fisher's measure of skewness indicates that z score values (measure of skewness/standard error of skewness) that fall between +1.96 and -1.96 constitutes normal distribution (Hildebrand, 1986). (see table 3)

Table 3
Description of Study Instruments

	<i>MBI-HSS</i>	<i>RC</i>	<i>RO</i>	<i>POS</i>
Skewness	.171	-.250	.408	-.462
St. Error	.246	.246	.246	.246
Kurtosis	-.822	-.832	-1.024	.619
St. Error	.488	.488	.488	.488
Kurtosis				
Z-score	.371	-1.02	1.65	-1.87

The Fisher's measure indicates that the distributions were normal. Additionally, the visual representations of normality such as the histogram, also indicated a normal distribution. The investigator determined that the data used in this study were normally distributed.

Demographic Data

The demographic and employment characteristics of the sample are presented in Table 4. The majority of the nurses were white, were employed in teaching, not for profit hospitals, and worked in their present positions for less than 10 years ($M=9.65$, $SD=8.18$). Half of the respondents had at least a baccalaureate degree in nursing and the mean age of the sample was 50.74 ($SD=8.28$). The respondents were employed in 6 nursing specialty areas, with the majority working in medical surgical/telemetry units. In addition, the vast majority (84.4%) of the participants worked in hospitals that were not designated as Magnet facilities.

Table 4***Subject's Demographics & Characteristics***

VARIABLE	n	%
Gender		
Male	4	4.2
Female	92	95.8
Race		
African American	8	8.3
Asian	1	1.0
Filipino	4	4.2
Hispanic	5	5.2
Pacific Islander	1	1.0
White/non-Hispanic	74	77.1
Mixed Race	1	1.0
Other	2	2.1
Highest Nursing Degree		
Associate/Diploma	36	37.5
Baccalaureate	48	50.0
Masters	12	12.5
Type of Hospital		
Teaching	36	37.5
Non-teaching	21	21.9
For-profit	7	7.3
Not for profit	32	33.3
Magnet Designation		
Yes	15	15.6
No	81	84.4
Type of Unit		
Critical care	16	16.7
Medical surgical/telemetry	34	35.4
Perioperative (OR, PACU, SDS, Endoscopy)	8	8.3
Maternal Child	8	8.3
Other	30	31.2

Results of Hypotheses Testing

The correlation matrix of the study variables is presented in table 5. Significant

relationships between study variables suggest that role overload and role conflict are significantly and positively related to job-burnout. The correlation between perceived organizational support and job-related burnout is also significant; however, the findings suggest an inverse relationship. The Statistical Package for the Social Sciences (SPSS) version 16.0 (SPSS, 2007) was used for statistical analyses.

Table 5

Pearson Product-Moment Correlations Between Study Variables

<i>Variables</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
1. Emotional Exhaustion				
2. Role Conflict	.388**			
3. Role Overload	.433**	.537**		
4. Perceived Organizational Support	-.347**	-.531**	-.540**	

** indicates $p \leq .05$ (2-tailed)

Hypothesis 1

The first hypothesis was developed based on the theoretical proposition that role overload is positively related to job-related burnout in nurse managers working in hospitals. A Pearson product-moment correlation coefficient was obtained by testing the hypothesized relationship between role overload and job-related burnout. The findings indicate, as theorized, that role overload is related to job burnout in nurse managers using a two-tailed ($r = .43$, $p < .05$) test of significance. Therefore, hypothesis one was supported.

Hypothesis 2

The second hypothesis was developed based on the theoretical proposition that

role conflict is positively related to job burnout in nurse managers working in hospitals. A Pearson product-moment correlation coefficient was obtained by testing the hypothesized relationship between role conflict and job-related burnout. The findings indicate, as theorized, that role conflict is related to job burnout in nurse managers using a two-tailed test of significance ($r = .39$, $p < .05$). Therefore, hypothesis two was supported.

Hypothesis 3

The third hypothesis was developed on the theoretical proposition that perceived organizational support is inversely related to job burnout in nurse managers working in hospitals. A Pearson product-moment correlation coefficient was obtained by testing the hypothesized relationship between perceived organizational support and job-related burnout. The findings indicate, as theorized, that perceived organizational support is inversely related to job burnout in nurse managers using a two-tailed test of significance ($r = -.35$, $p < .05$). Therefore, hypothesis three was supported.

Hypothesis 4

The fourth hypothesis was derived from the theoretical proposition that perceived organizational support moderates the effect of role overload on job-related burnout in nurse managers working in hospitals. A two-step hierarchical multiple regression analysis testing moderator effects was conducted according to Bennett (2000).

In the first step, the predictor (role overload) and the moderator (perceived

organizational support) were entered simultaneously to predict the dependent variable (job-related burnout/emotional exhaustion). Unlike testing a mediator, the independent variables do not have to be significant predictors of the dependent variable to test for an interaction (Bennett, 2000). In the second step, the interaction term was entered into the model (product of role overload and perceived organizational support). The interaction term indicates a combined relationship between the two independent variables which explains the additional variance in the dependent variable that is not explained by either variable alone. A moderating effect occurs if the interaction term explains a statistically significant amount of the variance in the dependent/outcome variable (Bennett, 2000). The interaction term was not a significant predictor of job-related burnout in nurse managers ($\beta = .30$, $p = .31$). This finding did not support, as theorized, that perceived organizational support moderates the effect of role overload on job-related burnout in nurse managers working in hospitals. Therefore, hypothesis four was not supported.

Table 5

Statistics of Moderation Model (Perceived Organizational Support and Role Overload)

Predictor Variables	Cumulative R^2	R^2 Change	Significance of Change
Perceived Organizational Support and Role Overload	.22	.22	.00
Perceived Organizational Support x Role Overload	.23	.01	.31

DV: Emotional Exhaustion

Hypothesis 5

The fifth hypothesis was derived from the theoretical proposition that perceived organizational support moderates the effect of role conflict on job-related burnout in nurse managers working in hospitals. Hierarchical multiple regression was performed to test the hypothesis using a two-step approach. Independent variables role conflict and perceived organizational support (moderator) were entered into the model as predictors of job-related burnout in the first step. Next, the interaction term was entered into the model (product of role overload and perceived organizational support) as the second step. The interaction term was not a significant predictor of job-related burnout in nurse managers ($\beta = .37, p = .23$). The data did not support the hypothesis that perceived organizational support moderates the effect of role overload on job-related burnout in nurse managers working in hospitals. Therefore, hypothesis five was not supported.

Table 6

Statistics of Moderation Model (Perceived Organizational Support and Role Conflict)

Predictor Variables	Cumulative R ²	R ² Change	Significance of Change
Perceived Organizational Support and Role Conflict	.17	.17	.00
Perceived Organizational Support x Role Conflict	.18	.01	.23

DV: Emotional Exhaustion

Ancillary Findings

In this sample of 96 nurse managers, a total of 66.7% suffered from job-related burnout. Interestingly, the prevalence of burnout was highest among nurse managers of medical/surgical units; 73.5% of nurse managers working on medical/surgical units suffered from job-related burnout. Analysis of variance indicates that nurse managers employed on medical/surgical units had significantly higher emotional exhaustion scores than nurses working on maternal/child health units, $F(4,91) = 2.716$, $p = .05$.

Multiple regression was conducted to determine the individual and combined effects of role conflict and role overload on job-related burnout. Collinearity statistics, including the variance inflation factor (VIF) and tolerance, indicated no multicollinearity between the two predictors. Multicollinearity exists when two predictor variables in a regression model are highly correlated (Montgomery, Peck, & Vining, 2006). Both role conflict ($\beta = .219$, $p = .046$) and role overload ($\beta = .315$, $p = .005$) uniquely and significantly contributed to job-related burnout. Together, these two predictors explained 22.2% of the variance in job-related burnout among nurse managers; the strongest predictor of burnout, however, was role overload.

Because nurse managers on medical/surgical units had significantly higher burnout scores, the effects of role conflict and role overload were explored in the sub-sample of medical/surgical nurse managers only. Collinearity statistics including the variance inflation factor (VIF) and tolerance indicated no multicollinearity between the two predictors. The regression model explained 33.7%

of the variance in job-related burnout in this sub-sample of nurse managers.

Interestingly, role conflict was not a significant predictor of job-related burnout ($\beta=.236$, $p=.163$), but the effect of role overload on job-related burnout was significant ($\beta=.432$, $p=.014$) among this group of nurse managers.

Supplemental Findings

A re-examination of the theories from which the theoretical propositions were derived was performed to further understand the theoretical relationships among role conflict, role overload, and perceived organizational support. Based on this re-examination, mediation models testing the effects of role overload and role conflict on the relationship between perceived organizational support and job-related burnout were performed. According to Bennett (2000), mediator effect is only tested when there is a significant relationship between the predictor variable and the outcome variable (see table 5). To test for a mediator effect, three regression analyses were performed (Baron and Kenny, 1986). The first equation regressed role overload on perceived organizational support ($\beta=-.540$, $p < .001$). Perceived organizational support explained 29.2% of the variance in role overload. The second equation regressed job-related burnout on perceived organizational support ($\beta=-.347$, $p=.001$). Perceived organizational support explained 12% of the variance in job-related burnout. The third equation regressed job-related burnout on both role overload and perceived organizational support. The final equation found that role overload was a significant predictor ($\beta=-.347$, $p=.001$) and the relationship between perceived organizational support and job-related burnout was no longer significant

when role overload was added to the equation ($p=.15$). Thus, role overload fully mediated the relationship between perceived organizational support and job-related burnout.

A second model was performed to test the mediator effects of role conflict on the relationship between perceived organizational support and job-related burnout. The first equation regressed role conflict on perceived organizational support ($\beta = -.531$, $p = .000$). The second equation regressed job-related burnout on perceived organizational support ($\beta = -.347$, $p = .001$). The third equation regressed job-related burnout on both role conflict and perceived organizational support. The final equation found that role conflict was a significant predictor ($\beta = .284$, $p = .01$) and the relationship between perceived organizational support and job-related burnout was no longer significant when role conflict was added to the equation ($p=.08$). Interestingly, both role overload and role conflict mediated the relationship between perceived organizational support and job-related burnout.

CHAPTER 5

Discussion of the Findings

The purpose of this study was to examine the relationships among role conflict, role overload, perceived organizational support, and job-related burnout in nurse managers working in hospitals. The findings discussed in this chapter are discussed in light of the theoretical propositions derived from theories of job-related burnout (Maslach, 1986; 2003), role conflict (Kahn, Wolfe, Quinn, Snoek, 1964; Rizzo, House, & Lirtzman, 1970), role overload (Kahn, Wolfe, Quinn, Snoek, 1964; Bacharach, Bamberger, Conley, 1990), and perceived organizational support (Eisenberger, Huntington, Hutchison, & Sowa, 1986).

Theorists agree that certain organizational characteristics are key factors in contributing to job-related burnout (Cherniss, 1980; Maslach, 2003; maslach & Leiter, 1997; Welch, Medeiros, & Tate, 1980). Additionally, theorists also posit that the structure of the work setting and the organization of the work force have a primary influence on job-related burnout (Cherniss, 1980; Maslach, 2003; Maslach & Leiter, 1997; Pines, Aronson, & Kafry, 1981).

Although theorists postulate that organizational factors such as role overload (Cordes, Dougherty, & Blum, 1997; Maslach, 2003; Maslach & Leiter, 1997) and role conflict are two key organizationally-influenced contributors to job-related burnout among human service professionals, it has also been posited that these employees are capable of enduring these organizational stressors when they feel that their work is appreciated and supported within the organization. In short, the

presence of organizational support serves as a mechanism to protect or safeguard against the effects of job-related burnout (Brotheridge, 2001; Hobfoll, 2002; Lazarus, 1991; Maslach, 2003; Pines, Aronson, & Kafry, 1981).

According to many theorists, role overload is a main component in creating job stress for the person who experiences it. In spite of the contributing factors, theorists posit that when human services professionals, including managers, perceive their work to be too voluminous with insufficient resources to meet the requirements of the their job, burnout ensues (Cherniss, 1981; Maslach, 2003; Maslach & Leiter, 1998; Pines & Aronson, 1988). Therefore, based on the theoretical and empirical literature, a positive relationship between role overload and job-related burnout was hypothesized.

Theorists posit a positive relationship between role conflict and job-related burnout (Elloy, Terpening, & Kohls, 2001; Maslach, 2003; Maslach, Schaufeli, & Leiter, 2001). Role conflict introduces uncertainty for the employee and they are unsure whether all of their role requirements are consistent and compatible (Jahawar, Stone, & Kisamore, 2007; Jex, Adams, Bacharach, & Sorenson, 2003). These employees may believe that they cannot obtain a level of success in their job. As a result, psychological discomfort and negative emotional reactions, such as emotional exhaustion, the central component of job-related burnout ensues (Schaubroeck, Cotton, & Jennings, 1989). Therefore, based on the theoretical and empirical literature, a positive relationship between role conflict and job-related burnout was hypothesized.

Theorists postulate that perceived organizational support plays an important role in lessening work place stressors and the potential for job-related burnout (Brotheridge, 2001; Hobfoll, 2002; 1989; Lazarus, 1991; Rhoades & Eisenberger, 2002). In addition, theorists also posit that perceived organizational support could diminish role stress as well as buffer the effects of stress due to job role and job demand on job-related burnout (Brotheridge, 2001; Hobfoll, 2002; 1989; Lazarus, 1991). Therefore, based on theoretical and empirical literature, an inverse relationship between perceived organizational support and job-related burnout was hypothesized. In addition, it was also hypothesized that perceived organizational support would moderate the effects of role overload and role conflict on job-related burnout.

Role Overload and Job-Related Burnout

Hypothesis 1 stated that role overload is positively related to job-related burnout in nurse managers working in hospitals. The hypothesis and the theoretical proposition from which it was derived were supported by the data. This hypothesis was derived from the theoretical literature that posits a positive relationship between role overload and job-related burnout (Cherniss, 1981; Maslach, 2003; Maslach & Leiter, 1998; Pines & Aronson, 1988). This finding is consistent with the findings of previous research (Cordes, Dougherty, & Blum, 1997; Thompson, Kirk, & Brown, 2005; Zohar, 1997).

Role overload was measured using the Role Hassles Index Role Overload subscale (Zohar, 1997) and job-related burnout was measured by the Maslach

Burnout Inventory Human Services Survey, Emotional Exhaustion subscale (Maslach & Jackson, 1986) and a significant positive relationship was found ($r=.43$, $p<.05$) The strength of the relationship was a moderately strong positive relationship. This finding supports the theoretical proposition of a positive relationship between role overload and job-related burnout. It also supports that the theory explains the relationship between role overload and job-related burnout.

Role Conflict and Job-Related Burnout

Hypothesis 2 stated that role conflict is positively related to job-related burnout in nurse managers working in hospitals. The hypothesis and the theoretical proposition from which it was derived were supported by the data. This hypothesis was derived from the theoretical literature that posits a positive relationship between role conflict and job-related burnout (Elloy, Terpening, & Kohls, 2001; Maslach, 2003; Maslach, Schaufeli, & Leiter, 2001). This finding is consistent with previous research (Lee & Ashforth, 1996; Piero, Gonzalez-Roma, & Toderia, 2001; Piko, 2005).

Role conflict was measured using the Role Conflict subscale of the Role Conflict and Ambiguity Scale (Rizzo, House, & Lirtzman, 1970) and a significant positive relationship was found. The strength of the relationship was a moderately strong positive relationship ($r=.39$, $p<.05$). This finding supports the theoretical proposition of a positive relationship between role conflict and job-related burnout. It also supports that the theory explains the relationship between role conflict and job-related burnout.

Perceived Organizational Support and Job-Related Burnout

Hypothesis 3 stated that perceived organizational support is inversely related to job-related burnout in nurse managers working in hospitals. The hypothesis and the theoretical proposition from which it was derived were supported by the data. The hypothesis was derived from the theoretical literature that postulates an inverse relationship between perceived organizational support and job-related burnout. (Brotheridge, 2001; Hobfoll, 2002; 1989, Lazarus, 1991; Rhoades & Eisenberger, 2002). This finding is consistent with previous research (Cropanzo, Howes, Grandey, & Toth, 1997; Jawahar, Stone, & Kisamore, 2007; Laschinger, Purdy, Cho, & Almost, 2006).

Perceived organizational support was measured using the Survey of Perceived Organizational Support (Eisenberger, Huntington, Hutchison, & Sowa, 1986) and a significant inverse relationship was found. The strength of the relationship was moderately strong inverse relationship ($r = -.35$, $p < .05$). This finding supports the theoretical proposition of an inverse relationship between perceived organizational support and job-related burnout. It also supports that the theory explains the relationship between perceived organizational support and job-related burnout.

Perceived Organizational Support, Role Overload, and Job-Related Burnout; Perceived Organizational Support, Role Conflict, and Job-Related Burnout

Hypothesis 4 stated that perceived organizational support moderates the effects of role overload on job-related burnout in nurse managers working in hospitals. Neither this hypothesis nor the theoretical proposition from which it was derived

were supported by the data. According to Bennett (2000), it is sometimes difficult to determine whether a variable is theoretically proposed to be a mediator or moderator. Although determining whether a variable is a mediator or moderator is based on theory, these relationships, however, may depend on the researcher's interpretation of the theory. Although theory proposes that a supportive organization can offset or moderate the impact of role overload and role conflict on burnout, a re-examination of the theory indicated that role overload and role conflict, while inherent in the job, can also be produced by the organization (Caplan & Jones, 1975; Elloy, Terpening, & Kohls, 2001; French & Caplan, 1972; Kahn, Wolfe, Quinn, & Snoek, 1964; O'Driscoll & Beehr, 2000; Pines, Aronson, & Kafry, 1981). Hence, an unsupportive organization may produce or increase the stressors of role overload and role conflict, which in turn, may produce job-related burnout.

Hypothesis 5 stated that perceived organizational support moderated the effect of role conflict on job-related burnout in nurse managers working in hospitals. Neither this hypothesis nor the theoretical proposition from which it was derived were supported by the data. A similar theoretical explanation exists among the variables tested in this model. Therefore, to further understand these theoretical relationships, the mediating effects of role overload and role conflict in the relationship between perceived organizational support and job-related burnout were tested.

CHAPTER 6

Summary, Conclusions, Implications, and Recommendations

Summary

The purpose of this study was to examine the relationships among role conflict, role overload, perceived organizational support, and job-related burnout among a sample of nurse managers working in hospital settings in the United States.

Theoretical propositions derived from theories of job-related burnout (Maslach, 1986; 2003), role conflict (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964; Rizzo, House, & Lirtzman, 1970), role overload (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964; Bacharach, Bamberger, Conley, 1990), and perceived organizational support (Eisenberger, Huntington, Hutchison, & Sowa, 1986) were tested in this study.

Job-related burnout was theoretically defined as an individual's feeling that he/she is emotionally drained, strained and frustrated by their job of working directly with people (Maslach, 2003; Maslach & Leiter, 1997; Maslach, Schaufeli, & Leiter, 2001). Role overload was defined theoretically as the inconsistency between activities or tasks demanded of an employee and the time or other resources available for completing these tasks (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964; Bacharach, Bamberger, Conley, 1990). Theorists posit a positive relationship between role overload and job-related burnout (Cherniss, 1981; Maslach, 2003; Maslach & Leiter, 1998; Pines & Aronson, 1988). This theoretical relationship is supported by empirical literature (Cordes, Dougherty, & Blum, 1997; Thompson, Kirk, & Brown, 2005; Zohar, 1997).

Role conflict is defined as an incompatibility of job demands that may be imposed by the same source or by different sources. When the expectations of two or more roles interfere with each other, at least one or more of the roles will be impossible to achieve, thus, role conflict ensues (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964; Rizzo, House, & Lirtzman, 1970). Theorists postulate that there is a positive relationship between role conflict and job-related burnout (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964; Rizzo, House, & Lirtzman, 1970). Empirical literature supports the theoretical relationship (Lee & Ashforth, 1996; Piero, Gonzalez-Roma, & Toderia, 2001; Piko, 2005).

Perceived organizational support is conceptualized as an employee's beliefs concerning the extent to which the organization values their contributions and cares about their well-being (Eisenberger, Huntington, Hutchison, & Sowa, 1986). The level of perceived organizational support is influenced by factors such as fairness/procedural justice, supervisory support, and organizational rewards and job conditions (Rhoades & Eisenberger, 2002). Theorists contend that perceived organizational support could reduce role stress as well as buffer the effects of stress due to job role and job demand on job-related burnout (Brotheridge, 2001; Hobfoll, 2002; 1989; Lazarus, 1991), suggesting an inverse relationship between job-related burnout and perceived organizational support. The empirical literature supports this proposed relationship (Cropanzano, Howes, Grandey, & Toth, 1997; Jawahar, Stone, & Kisamore, 2007; Laschinger, Purdy, Cho, & Almost, 2006).

Based on the theoretical and empirical literature, the following hypotheses were

derived for this study:

1. Role overload is positively related to job-related burnout in nurse managers.
2. Role conflict is positively related to job-related burnout in nurse managers.
3. Perceived organizational support is inversely related to job-related burnout in nurse managers.
4. Perceived organizational support moderates the effect of role overload on job-related burnout in nurse managers.
5. Perceived organizational support moderates the effect of role conflict on job-related burnout in nurse managers.

Participants were recruited through the use of a mailing list of registered nurses who are subscribers/purchasers of professional nursing products from a publishing company, and who are currently employed as nurse managers in hospital settings across the United States. The convenience sample of 96 nurses identifying themselves as nurse managers who work in acute care facilities participated in the study. The majority of the study participants were white females, employed in teaching, not for profit hospitals, and worked in their positions for less than 10 years ($M=9.65$, $SD= 8.18$).

Data were collected using (1) the Demographics Questionnaire developed by the investigator; (2) the Maslach Burnout Inventory-Human Services Survey (Maslach & Jackson, 1986); (3) the Role Hassles Index (RHI)/Role Overload subscale (Zohar, 1997); (4) the Role Conflict & Ambiguity Scale/ Role Conflict subscale (Rizzo, House, & Lirtzman, 1970); and (4) the Survey of Perceived Organizational Support

(Eisenberger, Huntington, Hutchison, & Sowa (1986).

Data were analyzed using the Statistical Package for the Social Sciences (SPSS) Graduate Pack for Windows, version 16. Alpha coefficients were calculated for the study instruments: the Maslach Burnout Inventory-Human Services Survey (Maslach & Jackson, 1986); the Roles Hassles Index (RHI)/ Role Overload subscale (Zohar, 1997); the Role Conflict & Ambiguity Scale/Role Conflict subscale (Rizzo, House, & Lirtzman, 1970); and the Survey of Perceived Organizational Support (Eisenberger, Huntington, Hutchison, & Sowa (1986), .92; .89; .89; & .95, respectively. Descriptive statistics were used to analyze the data describing the characteristics of the sample, Pearson's rank correlation was used to examine the interrelationships between the study variables, and multiple regression was used to test hypotheses one through five, including the two moderation models. The level of significance at which the research hypotheses was tested was .05.

The first hypothesis, which stated that role overload was positively related to job-related burnout in nurse managers working in hospitals, was supported. The second hypothesis, which stated that role conflict was positively related to job-related burnout in nurse managers working in hospitals, was supported. The third hypothesis, which stated that perceived organizational support is inversely related to job-related burnout in nurse managers working in hospitals, was supported. The fourth hypothesis, which stated that perceived organizational support moderates the relationship between role overload and job-related burnout, was not supported. The fifth hypothesis, which stated that perceived organizational support moderates the

relationship between role conflict and job-related burnout, was not supported.

In summary, theoretical propositions were tested to explain job-related burnout in a sample of nurse managers working in hospitals. The theoretical propositions tested, explained the relationships among role conflict, role overload, and perceived organizational support among nurse managers employed in hospital settings.

Conclusions

The findings of this study support, as hypothesized, that theoretical relationships exist between role conflict, role overload, perceived organizational support, and job-related burnout. The findings also support a positive relationship between role overload and job-related burnout; a positive relationship between role conflict and job-related burnout; and an inverse relationship between perceived organizational support and job-related burnout. Among the variables tested, role overload and role conflict were highly correlated to job-related burnout. However, role overload was the strongest predictor overall.

Contrary to the hypothesis, the findings in this study did not support the theoretical propositions that perceived organizational support moderated the relationship between role overload and job related burnout, or the relationship between role conflict and job-related burnout. However, further analyses indicated that role conflict and role overload mediated the relationship between perceived organizational support and job-related burnout. Additional factors, such as type of unit managed, indicated a certain prevalence to job-related burnout.

Implications for Nursing

Empirical evidence suggests that human service workers are most at risk for experiencing job-related burnout (Maslach, 2003; Maslach & Leiter, 1997). In addition, theorists contend that certain organizational factors, specifically those found in bureaucratic organizations such as hospitals, place these human service providers at greater risk of suffering from occupational burnout (Flood & Scott, 1987; Pines, Aronson, & Kafry, 1981; Welch, Medeiros, & Tate, 1980). The findings of this study support that nurse managers working in hospitals suffer from job-related burnout. Among nurse managers, overall, 66.7% were experiencing burnout; that percentage soared to 73.5% among nurse managers on medical/surgical units. This prevalence of job burnout is much higher than the 30%-43% range reported among staff registered nurses in previous studies (Aiken, Clarke, Sloane, Sochalski, Busse, et al., 2001; Flynn, Thomas-Hawkins, & Clarke, 2009), identifying nurse managers as being at higher risk for job-related burnout than staff registered nurses.

The problem of job-related burnout in nurse managers is multifaceted in that it affects the individual as well as the organizations that employ them.

Organizationally, occupational burnout in work settings such as hospitals, contribute to high staff turnover, decreased job satisfaction, and decreased productivity (Aiken, et al, 2002; Wheeler & Riding, 1994). Decreased productivity resulting from burnout in nurse managers can have a significant impact on staff nurse job satisfaction, turnover, and patient care (Aiken, et al, 2002; Institute of Medicine,

2003; Tucker & Edmondson, 2002).

On an individual nurse manager level, significant health risks have been associated with job-burnout (Bruhn, Chesney, & Slacido, 1995; Maslach, 2003; Maslach, Schaufeli, & Leiter, 2001; O'Driscoll & Beehr, 2000; Pines, Aronson, & Kafry, 1981; Terpening & Kohls, 2001) such as myocardial infarctions (Appels & Mulder, 1989), psychological distress, depression, alcohol and drug abuse, and suicidal ideation (Maslach, 2003; Maslach & Leiter, 1997; Maslach, Schaufeli, & Leiter, 2001). To reduce the risk of job-related burnout, occupational health nurses and nursing administrators, must incorporate interventions designed to identify signs of job burnout by assessing the work environment for issues that may potentially impair the health and safety of employees, reduce role overload and role conflict, and increase organizational support to this unique group of health service workers (Maslach, 2003).

Nurse administrators can reduce role overload, the strongest predictor of job-burnout in this study, by developing and implementing a work redesign plan. Work redesign is critical in reducing the risk of occupational burnout in this population, as these individuals are responsible for maintaining processes that promote patient safety and positive patient outcomes (Sullivan & Decker, 2005). Unfortunately, recent cost-containment initiatives in hospital settings have expanded the role of the nurse manager, characterized by management of multiple nursing units, job redesign, and decreased organizational support (Rudan, 2002; West, Lyon, Mc Bain, & Gass, 2004). Since nurses are the largest group of health care providers in hospital

settings, new activities or tasks are often shifted to these individuals, further exacerbating the problem of role overload for nurses and the nurse manager. A component of the work redesign could include adding an advanced practice nurse to reduce the clinical consultation workload of the manager. Role conflict, another predictor of job burnout in this study, can also be addressed through work redesign and increased organizational support.

Theorists postulate that front-line managers are at a higher risk for developing occupational burnout compared to those individuals holding upper-level management positions, as front-line managers are not traditionally provided with enhanced mentorship and organizational supports (Welch, Medeiros, & Tate, 1980).

Specific interventions can be employed by nurse administrators who supervise front-line managers that include the development of mentorship programs, incorporating nurse managers in programs that recognize professional achievements within and outside of the hospital setting, and creating an environment that is accepting of an individual's goals and values. In addition, nursing administrators can foster a supportive environment that allows nurse managers to exercise formal authority within their respective nursing units (Maslach, 2003).

Occupational health nurses can utilize the findings of this study to expand the knowledge of occupational health nursing practice. Interventions such as developing an assessment tool to identify unsafe issues in the work environment, and designing a job-related burnout intervention that may be used to decrease the incidence of job burnout among healthcare managers.

Recommendations

Based on the findings of this study, including the high percentage of job burnout among nurse managers, specific areas for future study may address the following research questions:

1. What is the effect of job-related burnout in nurse managers on staff nurse satisfaction, staff nurse turnover, and intent to leave?
2. What influence does job-related burnout in nurse managers have on patient safety and patient outcomes in hospital settings?
3. Considering the work environment of staff nurses, what factors characterize the work environment for nurse managers? Is the nurse manager work environment different than that of the staff nurse?
4. What are other variables in the work environment that may contribute to job-related burnout in nurse managers working in hospitals?
5. What is the relationship between role conflict, role overload, and perceived organizational support on job-related burnout in nurse managers working in other healthcare settings such as community health?

Appendix A Role Conflict Scale

Please indicate the degree to which you agree or disagree with each statement by placing an **X** in the column that corresponds with your opinion.

	Strongly Disagree 1	Moderately Disagree 2	Slightly Disagree 3	Neither Agree nor Disagree 4	Slightly Agree 5	Moderately Agree 6	Strongly Agree 7
1. I have to do things that should be done differently.							
2. I have to buck a rule or a policy in order to carry out an assignment.							
3. I receive incompatible requests from two or more people.							
4. I do things that are apt to be accepted by one person and not accepted by others.							
5. I work on unnecessary things.							
6. I work with two or more groups who operate quite differently.							
7. I receive assignments without the manpower to complete them.							
8. I receive assignments without adequate resources and material to execute them.							

Appendix B

Survey of Perceived Organizational Support

The following statements represent possible opinions that you may have about working in your hospital/organization. Please indicate the degree to which you agree or disagree with each statement by placing an **X** in the column that corresponds with your opinion.

	Strongly disagree 0	Moderately disagree 1	Slightly Disagree 2	Neither agree nor disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
1. The hospital values my contribution to its well-being.							
2. If the hospital could hire someone to replace me at a lower salary it would do so.							
3. The hospital fails to appreciate any extra effort from me.							
4. The hospital strongly considers my goals and values.							
5. The hospital would understand a long absence due to my illness.							
6. The hospital would ignore any complaint from me.							
7. The hospital disregards my best interests when it makes decisions that affect me.							
8. Help is available from the hospital when I have a problem.							
9. The hospital really cares about my well-being.							
10. The hospital is willing to extend itself in order to help me perform my job to the best of my ability.							
11. The hospital would							

fail to understand my absence due to a personal problem							
12. If the hospital found a more efficient way to get my job done they would replace me.							
13. The hospital would forgive an honest mistake on my part.							
14. It would take only a small decrease in my performance for the hospital to want to replace me.							
15. The hospital feels there is little to be gained by employing me for the rest of my career.							
16. The hospital provides me little opportunity to move up the ranks.							
17. Even if I did the best job possible, the hospital would fail to notice.							
18. The hospital would grant a reasonable request for a change in my working conditions.							
19. If I were laid off, the hospital would prefer to hire someone new rather than take me back.							
20. The hospital is willing to help me when I need a special favor.							
21. The hospital cares about my general satisfaction at work.							
22. If given the opportunity, the hospital would take advantage of me.							
23. The hospital shows very little concern for me.							
24. If I decided to quit, the hospital would try to persuade me to stay.							
25. The hospital cares about my opinions.							
26. The hospital							

feels that hiring me was a definite mistake.							
27. The hospital takes pride in my accomplishments at work.							
28. The hospital cares more about making a profit than about me.							
29. The hospital would understand if I were unable to finish a task on time.							
30. If the hospital earned a greater profit, it would consider increasing my salary.							
31. The hospital feels that anyone could perform my job as well as I do.							
32. The hospital is unconcerned about paying me what I deserve.							
33. The hospital wishes to give me the best possible job for which I am qualified.							
34. If my job were eliminated, the hospital would prefer to lay me off rather than transfer me to a new job.							
35. The hospital tries to make my job as interesting as possible.							
36. My supervisors are proud that I am a part of this hospital.							

Appendix C
Role Hassles Index-Role Overload Scale

The following are statements that represent events that occurred within your workplace in the past 2 weeks. Indicate by placing an **X** in the column of the statement that describes how disruptive it was to you when it happened.

	Slightly Disruptive 1	Quite Disruptive 2	Very Disruptive 3
1. Felt under time pressure, had difficulty due to insufficient time.			
2. Had too much or too many things to take care of.			
3. Had to stay too many extra hours or do inconvenient shift-work schedule.			
4. Had difficulty in completing a task due to bureaucratic constraints.			
5. Had too few resources (staff, equipment, budget) for dealing with a task.			
6. Had to waste time over some unimportant activity.			
7. Had insufficient formal authority to do things my way.			

Appendix D
Maslach Burnout Inventory-Emotional Exhaustion Subscale

This instrument is not included as it is copyrighted by CPP, Inc. Permission has been obtained from CPP, Inc. to use the instrument in this dissertation research, but other than when collecting data, the instrument can not be duplicated.

Appendix E

Dear Nurse Colleagues!

You are being asked to participate in an important survey which explores nurses' work environments in hospital settings.

Your participation is crucial in helping create work environments in hospital settings that support your practice as a nurse. Your role is critical to the success of the nursing staff and to the delivery of quality patient care!

Enclosed you will find the short, confidential survey- **it should take no more than 15-20 minutes to complete**. Your rights as a survey participant are summarized on the reverse side of this letter.

Please mail the completed survey using the **self-addressed, postage-paid, envelope** included in this packet.

Thank you so much for your time. Your participation in this important project is crucial to designing work environments that best support nurses in their important work.

Sincerely,

Dorothy Smith Carolina, MS, RN
Doctoral Candidate
Rutgers University College of Nursing
Waynec988@aol.com

Appendix F

NURSES , PLEASE NOTE: YOUR RIGHTS AS A SURVEY PARTICIPANT

To ensure your confidentiality¹, **your name does not appear anywhere on the survey.** Instead of your name, the number in the upper right hand corner of the survey is used as a code and is available only to the researcher.

Findings will only be reported in the aggregate - you will not be able to be identified by ANY reports, publications, or presentations that may result from this survey.

Responding to this survey indicates your willingness to participate. Although **your responses are very important to me**, your participation is of course voluntary.

If you decide not to participate, simply place your uncompleted questionnaire in the stamped envelope provided and the investigator will remove your name from the mailing list. If neither a completed nor uncompleted survey is returned, you will receive a reminder postcard and a second survey over the next few weeks.

There are no anticipated risks to you in participating in this survey, which takes about 15 minutes to complete. Although results may not benefit you directly, findings will guide efforts to enhance the work environment of nurse managers as well as the quality of patient care in hospitals across the nation.

If you have any questions or concerns about this survey, please contact the Co-Investigator, Dorothy Smith Carolina at 732-878-1142, by email (waynec988@aol.com), or by mail at Rutgers, The State University of New Jersey College of Nursing: 180 University Avenue, Newark, NJ 07102. If you have any questions or concerns about your rights as a survey participant, please contact the Sponsored Programs Administrator at Rutgers University at: Rutgers University Institutional Review Board for the Protection of Human Subjects, Office of Research and Sponsored Programs, 3 Rutgers Plaza, New Brunswick, NJ 08901-8559 or at 732-932-0150 ext. 2104; email humansubjects@orsp.rutgers.edu

¹ **Definition of Confidential:** There exists a documented linkage between a subject's identity and his/her response in the research, and the investigator provides assurance in the protocol and in the informed consent form that the identity of any individual subject will not be revealed in any report of the study. Example: a subject's data record is assigned a code, and a "master list" that links the code to the subject's identity is maintained in a secure location

Appendix G

Demographics Questionnaire

This section asks general questions about you and your background. Please circle the correct response, or fill in the blank.

1. Which of the following best describes your current position?

- a) Not working at present or retired
- b) Staff nurse
- c) Front-line manager/assistant nurse manager (direct staff supervision)
- d) Nursing administrator (executive level)
- e) Staff educator, quality management
- f) Other: (specify)_____

2. How long have you worked in your present position? _____

3. Please indicate below the type of unit on which you work (circle one):

- a) Critical Care (ICU, CCU, Emergency Department, Pediatric ICU)
- b) Medical Surgical/Telemetry
- c) Perioperative (OR, PACU, Same Day Surgery, Endoscopy)
- d) Maternal Child (L&D, Postpartum, Nursery, Pediatrics)
- f) Other

4. What is your gender?

- a) Female
- b) Male

5. Which of the following best describes the hospital where you are employed (circle one):

- a) Teaching
- b) Non-teaching
- c) For-profit
- d) Not for profit

6. Indicate how your journal subscription is purchased:

- a) Subscription paid and provided by the hospital
- b) Subscription paid with personal funds
- c) Not applicable

7. Please indicate the highest nursing degree that you have earned:

- a) Associate degree/diploma
- b) Baccalaureate degree
- c) Masters degree
- d) Doctorate

8. Please indicate the highest degree that you have earned in a field other than nursing:

- a) Associate degree/diploma
- b) Baccalaureate degree
- c) Masters degree
- d) Doctorate

9. Please indicate your racial background:

- a) African-American (not of Hispanic origin)

- b) Alaskan or Native American
- c) Asian
- d) Filipino
- e) Hispanic
- f) Pacific Islander
- g) White (not of Hispanic origin)
- i) Mixed race
- j) Other: _____

10. What is your current age? _____

11. What was your age when you first became licensed as an RN? _____

12. Indicate if your facility is currently designated as a Magnet hospital:

- a) Yes
- b) No

Please indicate the degree to which these characteristics are present in your current job (circle one):

13. The hospital encourages team work between nurse managers:

- 1) Strongly disagree
- 2) Disagree
- 3) Agree
- 4) Strongly agree

14. There is team work between the nurse managers and physicians:

- 1) Strongly disagree
- 2) Disagree
- 3) Agree
- 4) Strongly agree

15. Nurse managers and administrators collaborate about issues and problems:

- 1) Strongly disagree
- 2) Disagree
- 3) Agree
- 4) Strongly agree

16. Nurse executives consult with nurse managers concerning daily problems and procedures:

- 1) Strongly disagree
- 2) Disagree
- 3) Agree
- 4) Strongly agree

Appendix H

Postcard thank you reminder (contact # 2)

Date 2008

Dear Colleague:

Last week a survey packet concerning experiences of job-related burnout, role overload, role conflict, and perceived organizational support in nurse managers was mailed to you. Your name was randomly selected from a list of nurse managers who subscribe to professional nursing journals.

If you have already completed and returned the survey packet to me, please accept my sincere thanks. If not, I ask that you please do so today. I am especially grateful for your help because it is only by asking nurses like you to share your experiences that we can understand why nurse managers experience job-related burnout.

If you have not received a survey packet, or if it was misplaced, please call me at 732-878-1142 (your phone charges will be reimbursed to you), or contact me by email at waynec988@aol.com and I will be certain to get another packet to you in the mail.

Dorothy S. Carolina, MS, RN

Doctoral Candidate
Rutgers, The State University of New Jersey College of Nursing

References

- Aiken, L.H., Clarke, S.P., & Sloane, D.M. (2002). Hospital staffing, organizational support, and quality of care: cross-national findings. *International Journal of Quality Health Care*, 2002; 14, 5-13.
- Aiken, L.H., Clarke, S.P., Sloane, D.M., Sochalski, J., & Silber, J.H. (2002). Hospital nurse staffing and patient mortality, nurse burnout, and job satisfaction. *JAMA*, 288 (16), 1987-1993.
- Aiken, L.H., Clarke, S.P., Sloane, D.M., Sochalski, J.A., Busse, R., Clarke, H., Giovannetti, P., Hunt, J., Rafferty, A.M., & Shamian, J. (2001). Nurses' reports on hospital care in five countries. *Health Affairs*, 20, 43-53.
- Aiken, L.H., & Sloane, D.M. (1997). Effects of organizational innovations in AIDS care on burnout among urban hospital nurses. *Work and Occupations*, 24(4), 453-477.
- Allen, M.W. (1995). Communication concepts related to perceived organizational support. *Western Journal of Communication*, 59, 326-346.
- Appels, A. & Mulder, P. (1989). Fatigue and heart disease: the association between vital exhaustion and past, present, and future coronary heart disease. *Journal of Psychosomatic Research*, 33, 727-738.
- Ashforth, B.E., Kreiner, G.E., & Fugate, M. (2000). All in a day's work: boundaries and micro role transitions. *Academy of Management Review*, 25, 472-491.
- Bacharach, S.B., Bamberger, P.R., & Conley, S.C. (1990). Work processes, role conflict, and role overload: The case of nurses and engineers in the public sector. *Work and Occupations*, 17(2), 199-229.
- Bennett, J.A. (2000). Mediator and moderator variables in nursing research: Conceptual and statistical differences. *Research in Nursing & Health*, 23, 415-420.
- Benson, L., & Ducanis, A. (1995). Nurses' perceptions of their role and role conflicts. *Rehabilitation Nurse*, (20), 204-211.
- Benton, J.C. (2000). Washington's repetitive stress over ergonomics rules. *CQ Weekly*, 58, 401-406.
- Boyle, D.K., Bott, M.J., Hansen, H.E., Woods, C.Q., & Taunton, R.L. (1999). Managers' leadership and critical care nurses' intent to stay. *American Journal of*

Critical Care, 8(6), 361-371.

Brink, P., & Wood, M.J. (1998). *Advanced Design in Nursing Research*, (2nd ed.). Thousand Oaks, CA: Sage Publications.

Brotheridge, C.M. (2001). A comparison of alternative models of coping: Identifying relationships among coworkers support, workload and emotional exhaustion in the workplace. *International Journal of Stress Management*, 8, 1-14.

Bruhn, J., Chesney, A., & Slacido, R. (1995). Health and organizational issues in managing a multicultural workforce. *Family and Community Health*, 18, 1-8.

Buerhaus, P.I., Staiger, D.O., & Auerbach, D.I. (2000). Implications of an aging registered nurse workforce. *Journal of the American Medical Association*, 283 (22), 2948-2954.

Buerhaus, P.I., Donelan, K., Ulrich, B.T., Norman, L., & Dittus, R. (2006). State of the registered nurse workforce in the United States. *Nursing Economic*, 24(1), 6-12.

Caplan, R.D., & Jones, K.W. (1975). The effects of workload, role ambiguity, and Type A personality on anxiety, depression, and heart rate. *Journal of Applied Psychology*, 60, 713-719.

Cherniss, C. (1980). *Professional Burnout in Human Service Organizations*. New York: Praeger Publishers.

Clarke, E. (2001). Role conflicts and coping strategies in caregiving: a symbolic interactionist view. *Journal of Psychosocial Nursing*, 39, 28-37.

Clarke, S.P., Sloane, D.M., & Aiken, L.H. (2002). Effects of hospital staffing and organizational climate on needlestick injuries to nurses. *American Journal of Public Health*, 92(7), 1115-1119.

Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences*, (2nd ed.). Hillsdale, NJ: Erlbaum.

Cordes, C.L., & Dougherty, T.M. (1993). A review and integration of research on job burnout. *Academy of Management Review*, 18, 621-656.

Cordes, C.L., Dougherty, T.M., & Blum, M. (1997). Patterns of burnout among managers and professionals: A comparison of models. *Journal of Organizational Behavior*, 18, 685-671.

- Costigan, C., Cox, M. J., & Cauce, A. M. (2003). Work-parenting linkages among dual-earner couples at the transition of parenthood. *Journal of Family Psychology*, 17, 3, 397-408.
- Cox, K.S., Teasley, S.L., Zeller, R.A., Lacey, S.R., Parsons, L., Carroll, C.A., & Ward-Smith, P. (2006). Know staff's intent to stay. *Nursing Management*, 37, 13-15.
- Cropanzano, R., Howes, J.C., Grandey, A.A., & Toth, P. (1997). The relationship of organizational politics and support to work behaviors, attitudes, and stress. *Journal of Organizational Behavior*, 18, 159-180.
- Dillman, D. (2007). *Mail and Internet Surveys: The Tailored Design Method* (2nd ed.). Hoboken, New Jersey: John Wiley and Sons, Inc.
- Dougherty, T.W., & Prichard, R.D. (1985). The measurement of role variables: exploratory examination of a new approach. *Organizational Behavior and Human Decision Processes*, 58, 51-100.
- Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology*, 71, 500-507.
- Eisenberger, R., Rhoades, L., & Cameron, J. (1999). Does pay for performance increase or decrease perceived self-determination and intrinsic motivation? *Journal of Personality and Social Psychology*, 77, 1026-1040.
- Elloy, D.F., Terpening, W., & Kohls, J. (2001). A causal model of burnout among self-managed work team members. *Journal of Psychology*, 135, 3, 321-335.
- Farber, B.A. (1982). *Stress and burnout in the human service professions*. New York: Pergamon Press.
- Fenlason, K.J., & Beehr, T.A. (1994). Social support and occupational stress: Effects of talking to others. *Journal of Organizational Behavior*, 15, 157-175.
- Figley, C.R. (1999). Compassion fatigue: toward a new understanding of the costs of caring. In B.H. Stamm (Ed.) *Secondary traumatic stress* (2nd ed.). Baltimore, MD: Sidrian Press.
- Fletcher, C. (2001). Hospital RNs' job satisfactions and dissatisfactions. *Journal of Nursing Administration*, 31(6), 324-331.
- Flood, A.B., & Scott, W.R. (1987). *Hospital structure and performance*. Baltimore, MD: The Johns Hopkins University Press.

- Flynn, L. (2003). Agency characteristics most valued by home care nurses: Findings of a nationwide study. *Home Healthcare Nurse*, 21(12), 812-817.
- Flynn, L. & Deatrick, J. (2003). Home care nurses descriptions of important agency attributes. *Journal of Nursing Scholarship*, 35 (4), 385-390.
- Flynn, L., Dickson, G., & Moles, D.J. (2007). Enhancing the nursing workplace. *Provider*, November 2007.
- Flynn, L., Thomas-Hawkins, C., & Clarke, S.P. (2009). Organizational traits, care processes, and burnout among chronic hemodialysis nurses. *Western Journal of Nursing Research*, 31 (5), 569-582
- Fortunato, V., Jex, S., & Heinisch, D. (1999). An examination of the discriminant validity of the strain-free negative affectivity scale. *Journal of Occupational and Organizational Psychology*, 72, 503-523.
- French, J.R. & Caplan, R.D. (1972). Organizational stress and individual strain. In Marrow, A.J. (Ed.), *The failure of success*. New York: AMACOM.
- Freudenberger, H. (1975). *The staff burn-out syndrome*. Washington, DC: Drug Abuse Council, Inc.
- Frone, M.R., Russell, M., & Cooper, M.L. (1992). Antecedents and outcomes of work-family conflict: Testing a model of the work-family interface. *Journal of Applied Psychology*, 77, 65-78.
- Ganster, D.C., & Schaubroeck, J. (1991). Work, stress and employee health. *Journal of Management*, 17, 235-271.
- Gelinas, L.S. & Manthey, M. (1997). The impact of organizational redesign on nurse executive leadership. *Journal of Nursing Administration*, 27 (10), 35-42.
- George, J.M., Reed, T.F., Ballard, K.A., Colin, J., & Fielding, J. (1993). Contact with AIDS patients as a source of work-related distress: Effects of organizational and social support. *Academy of Management Journal*, 36, 157-171.
- Gray-Toft, P.A., & Anderson, J.G. (1985). Organizational stress in the hospital: Development of a model for diagnosis and prediction. *Health Services Research*, 19, 6, 753-774.
- Greenberg, J. (1990). Organizational justice: Yesterday, today, and tomorrow. *Journal of Management*, 16, 399-432.

- Grohar-Murray, M & DiCroce, H. (2003). *Leadership and management in nursing*. Upper Saddle River, NJ: Prentice Hall.
- Hobfoll, S.E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44, 513-524.
- Hobfoll, S.E. (2002). Social and psychological resources and adaptation. *Review of General Psychology*, 6, 307-324.
- Institute of Medicine (2003). *Keeping patients safe*. Retrieved April 12, 2007 from <http://www.nap.edu/catalog/10851.html>
- Ivancevich, J.M., & Matteson, M.T. (1983). *Stress Diagnostic Survey*. Houston, TX: Stress Research Symptoms.
- Jawahar, I.M., Stone, T.H., & Kisamore, J.L. (2007). Role conflict and burnout: The direct and moderating effects of political skill and perceived organizational support on burnout dimensions. *International Journal of Stress Management*, 14(2), 142-159.
- Jex, S.M. (1999). Self-esteem as a moderator: A comparison of global and organization-based measures. *Journal of Occupational and Organizational Psychology*, 72, 71-82.
- Jex, S.M., Adams, G.A., Bachrach, D.G., & Sorenson, S. (2003). The impact of situational constraints, role stressors, and commitment on employee altruism. *Journal of Occupational Health Psychology*, 8, 3, 171-180.
- Kahn, R. (1978). Job burnout: Prevention and remedies. *Public Welfare*, 36, 61-63.
- Kahn, R.L., Wolfe, D.M., Quinn, R.P., & Snoek, J.D. (1964). *Organizational stress: Studies in role conflict and ambiguity*. New York: John P. Wiley & Sons, Inc.
- Kleinman, C. (2004). Leadership strategies in reducing staff nurse role conflict. *JONA*, 34, 7/8, 322-324.
- Kroposki, M., Murdaugh, C.L., Tavakoli, A.S., & Parsons, M. (1999). Role clarity, organizational commitment, and job satisfaction during hospital reengineering. *Nursing Connections*, 12, 1, 27-34.
- Lacey, S.R., Cox, K.S., Lorfing, K.C., Teasley, S.L., Carroll, C.A., & Sexton, K. (2007). Nursing support, workload, and intent to stay in magnet, magnet-aspiring, and non-magnet hospitals. *JONA*, 37(4), 199-205.
- Lageson, C. (2004). Quality focus of the first line manager and relationship to unit

- outcomes. *Journal of Nursing Care Quality*, 19(4), 336-342.
- Laschinger, H., Purdy, N., Cho, J., & Almost, J. (2006). Antecedents and consequences of nurse managers' perceptions of organizational support. *Nursing Economic\$,* 24(1), 20-29.
- Laschinger, H. (2004). Hospital nurses' perceptions of respect and organizational justice. *Journal of Nursing Administration*, 34(7/8), 354-364.
- Lazarus, R.S. (1991). Progress on a cognitive-motivational-relational theory of emotions. *American Psychologist*, 46, 819-834.
- Lee, R.T., & Ashforth, B.E. (1996). A meta-analytic examination of the correlates of the three dimensions of job burnout. *Journal of Applied Psychology*, 81, 123-133.
- MacDermid, S.M., & Williams, M.L. (1997). A within-industry comparison of employed mothers' experiences in small and large workplaces. *Journal of Family Issues*, 18, 545-566.
- Macready, N. (1998). Burnout: An occupational hazard for managers. *OR Manager*, 14(1), 23-24.
- Marshall, N.L., & Barnett, R.C. (1993). Work-family strains and gains among two-earner couples. *Journal of Community Psychology*, 21, 64-78.
- Maslach, C. (2003). *Burnout - The cost of caring*. Cambridge, MA: Malor Books.
- Maslach, C., & Jackson, S.E. (1986). The measurement of experienced burnout. *Journal of Occupational Behavior*, 2, 99-113.
- Maslach, C. & Leiter, M. (1998). Prevention of burnout: New perspectives. *Applied Preventive Psychology*, 7, 63-74.
- Maslach, C., & Leiter, M.P. (1997). *The truth about burnout*. San Francisco: Jossey-Bass.
- Maslach, C., Schaufeli, W.B., & Leiter, M.P. (2001). Job burnout. *Annual Review of Psychology*, 52, 397-422.
- Montgomery, D.C., Peck, E.A., & Vining, G.G. (2006). *Introduction to linear regression analysis*. Hoboken, NJ: John Wiley & Sons, Inc.
- Mc Clure, M.L. & Hinshaw, A.S. (2002). *Magnet hospitals revisited: Attraction and retention of professional nurses*. Washington, D.C. American Nurses Publishing.

- O'Driscoll, M.P., & Beehr, T.A. (2000). Moderating effects of perceived control and need for clarity on the relationship between role stressors and employee affective reactions. *Journal of Social Psychology*, 140, 2, 151-159.
- Osipaw, S.H., & Spokane, A.R. (1981). *Occupational Stress Inventory: Manual Research Version*. Odessa, Florida: Psychological Assessment Resources, Inc.
- Peeters, M.C.W., Montgomery, A.J., Bakker, A.B., & Schaufeli, W.B. (2005). Balancing work and home: How job and home demands are related to burnout. *International Journal of Stress Management*, 12, 43-61.
- Pender, N.J., Murdaugh, C.L., & Parsons, M.A. (2002). *Health promotion in nursing practice*. Upper Saddle River, NJ: Prentice Hall.
- Piero, J.M., Gonzalez-Roma, V., Tordera, N., & Manas, M.A. (2001). Does role stress predict burnout over time among health care professionals? *Psychology and Health*, 16, 8, 511-525.
- Piko, B.F. (2005). Burnout, role conflict, job satisfaction and psychosocial health among Hungarian health care staff: A questionnaire survey. *International Journal of Nursing Studies*, 43, 311-318.
- Pines, A. & Aronson, E. (1988). *Career burnout*. New York: The Free Press.
- Pines, A., Aronson, E., & Kafry, D. (1981). *Burnout: From tedium to personal growth*. New York: The Free Press.
- Polit, D., & Beck, C.T. (2004). *Nursing Research: Principals and Methods*, (7th ed.). Philadelphia, PA: Lippincott Williams & Wilkins.
- Posig, M., & Kickul, J. (2003). Extending our understanding of burnout: Test of an integrated model in nonservice occupations. *Journal of Occupational Health Psychology*, 8, 1, 3-19.
- Rhoades, L., & Eisenberger, R. (2002). Perceived organizational support: A review of the literature. *Journal of Applied Psychology*, 87, 698-714.
- Rizzo, J., House, R.J., & Lirtzman, S.L. (1970). Role conflict and role ambiguity in complex organizations. *Administrative Quarterly*, 15, 150-163.
- Rudan, V.T. (2002). Where have all the nursing administration students gone? Issues and solutions. *Journal of Nursing Administration*, 32(4), 185-188.
- Schaubroeck, J., Cotton, J.L., & Jennings, K.R. (1989). Antecedents and

- consequences of role stress: A covariance structure analysis. *Journal of Organizational Behavior*, 10, 35-58.
- Schaubroeck, J., Ganster, D.C., Sime, W.E., & Ditman, D. (1993). A field experiment testing supervisory role clarification. *Personnel Psychology*, 46(1), 1-26.
- Schaufeli, W.B. & Enzmann, D. (1998). *The burnout companion to study and practice: A critical analysis*. Washington, D.C.: Taylor & Francis.
- Schaufeli, W.B., Leiter, M.P., Maslach, C., & Jackson, S.E. (1996). Maslach burnout inventory-General survey. In C. Maslach, S.E. Jackson, & M.P. Leiter (Eds.), *The Maslach burnout inventory: Test manual* (3rd ed). Palo Alto, CA: Consulting Psychologists Press.
- Selye, H. (1976). *The stress of life*. New York: McGraw-Hill.
- Shirom, A. (1997). Job-related burnout: A review. In J.C. Quick & L.E. Tetrick (Eds.), *Handbook of occupational health psychology* (pp. 245-264). Washington, D.C.: American Psychological Association.
- Shore, L.M., & Barksdale, K. (1998). Examining degree of balance and level of obligation in the employment relationship: A social exchange approach. *Journal of Organizational Behavior*, 19, 731-744.
- Sovie, M. & Jawad, A. (2001). Hospital restructuring and its impact on outcomes. *Journal of Nursing Administration*, 31(12), 588-600.
- Sullivan, E.J. & Decker, P.J. (2005). *Effective leadership & management in nursing*. Upper Saddle River: Prentice Hall.
- Thomas, L.T., & Ganster, D.C. (1995). Impact of family supportive work variables on work-family conflict and strain: A control perspective. *Journal of Applied Psychology*, 80, 6-15.
- Thomas-Hawkins, C., Denno, M., Currier, H., & Wick, G. (2003). Staff nurses' perceptions of the work environment in freestanding hemodialysis facilities. *Nephrology Nursing Journal*, 30(2), 169-178.
- Thompson, B.M., Kirk, A., & Brown, D.F. (2005). Work based support, emotional exhaustion, and spillover of work stress to the family environment: a study of policewomen. *Stress and Health*, 21, 199-207.
- Tucker, A. & Edmondson, A. (2002). Managing routine exceptions: A model of nurse problem solving behavior. *Advances in Health Care Management*, 3, 87-113.

- United States Department of Health and Human Services (2002). *Projected supply, demand, and shortages of registered nurses: 2000-2020*. Washington, D.C.: Author
- Vahey, D.C., Aiken, L.H., Sloane, D.M., Clarke, S.P., & Vargas, D. (2004). Nurse burnout and patient satisfaction. *Medical Care*, 42(2), 57-66.
- Valcour, J.P. (2002). Managerial behavior in a multiplex role system. *Human Relations*, 55, 10, 1163-1188.
- Wayne, S. J., Shore, L.M., & Liden, R.C. (1997). Perceived organizational support and leader-member exchange: A social exchange perspective. *Academy of Management Journal*, 40, 82-111.
- Weick, K.L., Oehler, T., Green, A., & Jordan, C. (2004). Safe nurse staffing: A win-win collaboration model for influencing health policy. *Policy, Politics, & Nursing Practice*, 5(3), 160-166.
- Welch, I.D., Medeiros, D.C., & Tate, G.A. (1980). *Beyond burnout*. W Publishers.
- West, B., Lyon, M.H., McBain, M., & Gass, J. (2004). Evaluation of a clinical leadership initiative. *Nursing Standard*, 19(5), 33-41.
- Wheeler, H., & Riding, R. (1994). Occupational stress in general nurses and midwives. *British Journal of Nursing*, 39(10), 527-534.
- Zohar, D. (1997). Predicting burnout with a hassle-base measure of role demands. *Journal of Organizational Behavior*, 18(2), 101-115.

VITA
Dorothy Smith Carolina

1966	Born April 29 in Paterson, New Jersey
1984	Graduated Passaic County Technical and Vocational High School, Wayne, New Jersey
1988	Diploma in Nursing, Mountainside Hospital School of Nursing, Montclair, New Jersey
1988-1991	Registered Nurse, Mountainside Hospital, Montclair, New Jersey
1991-2003	Nurse Manager/Nursing Supervisor, Union Hospital, Union, New Jersey
1992	BSN, Seton Hall University, South Orange, New Jersey
1998	M.S., Columbia University School of Nursing, New York, New York
2004-2007	Assistant Professor of Nursing, Felician College, Lodi, New Jersey
2007-2008	Registered Nurse, Visiting Nurse Association of Central Jersey, Woodbridge, New Jersey
2008-present	Assistant Professor/Instructor, Seton Hall University, South Orange, New Jersey
2010	Ph.D. in Nursing, Rutgers, The State University of New Jersey, Newark, New Jersey