

Running head: ROLE STRAIN AND JOB SATISFACTION

Role Strain and Job Satisfaction in Registered Nurses

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A thesis submitted in partial fulfillment of the
requirements for the Master of Science in Nursing degree
in the Department of Nursing

1996

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ROLE STRAIN AND JOB SATISFACTION IN REGISTERED NURSES

By

Lee Schmidt

Thesis

Submitted to the Faculty of

the Nursing Department of

The University of Tampa

in Partial Fulfillment of Requirements

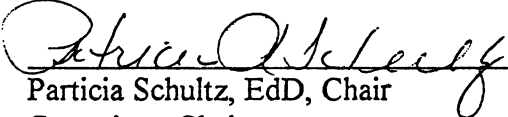
for the Degree of

MASTER OF SCIENCE IN NURSING

in

Nursing Administration

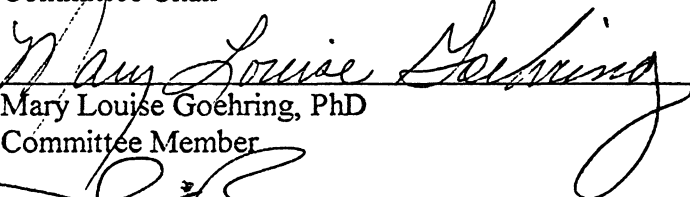
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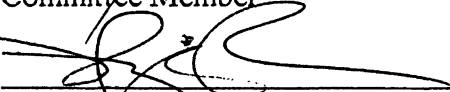
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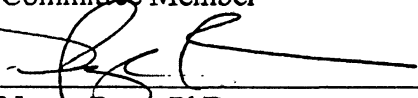
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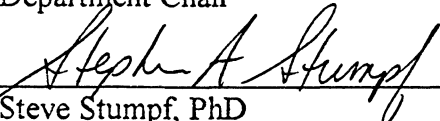
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Role Strain and Job Satisfaction in Registered Nurses

This study investigated role strain as an extra-work correlate of job satisfaction in the registered nurse population. Prior investigations of job satisfaction in registered nurses have limited the focus of inquiry to factors within the work environment or the context of the job itself. This study moved beyond these environmental and contextual factors and examined the relationship between the strain produced by occupation of multiple roles and global job satisfaction. For this inquiry, role strain was conceptualized as a subjective response of tension or frustration which occurred when role demands conflicted. Global job satisfaction was defined as an overall evaluation of the job itself, processed through individual norms, values, and expectations.

Ninety eight randomly selected registered nurses participated in the study. Respondents completed a mailed survey which assessed role strain, global job satisfaction, the number and type of roles occupied, the percentage of time spent in these roles, and their perceived satisfaction with performance in roles. Demographic information related to this study and the population of registered nurses in general was also collected.

Findings noted significant, inverse relationships between role strain and global job satisfaction and between role strain and self-reported satisfaction with performance in roles. A significant relationship between role strain and the number of roles occupied was also demonstrated. The relationship between role strain and the total percentage of time spent in roles was not significant.

These findings provide some support for the position that job satisfaction is not limited to the contextual elements of the work environment or work itself. Rather, job satisfaction may be affected by factors outside the organizational structure. This information should be useful to administrators as they plan programs directed at enhancing the job satisfaction of registered nurses.

Acknowledgments

Each step in the process of completing this thesis was facilitated by the support and expertise of many individuals to whom I offer my thanks and gratitude.

My highest admiration and respect go to Patricia Schultz, committee chairperson, who gave unselfishly of her time during this process. Her words of encouragement and support, coupled with her scholarly expertise were instrumental in the completion of this project.

I gratefully acknowledge the members of my committee, Mary Louise Goehring and Nancy Ross for their suggestions, comments, support throughout this process.

A number of registered nurses enrolled in graduate studies at the University of Tampa, as well as staff members of the Cardiac Surgical Intensive Care Unit at Tampa General Hospital and the Post Anesthesia Care Unit at University Community Hospital willingly participated in the pilot testing of the scales used in this research. I offer my thanks for your assistance.

My thanks and gratitude go to Arnez Wotring, friend and classmate, for her willingness to listen and comment on my ideas and thoughts during the proposal development stages as well as her constructive comments on the final report of this research.

Finally, to the 98 registered nurses who took the time to complete the survey and return it to me, I offer my appreciation. Without each of them, this research would not have been possible.

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Chapter 1

Introduction

A dominant theme in the health services literature surrounds the shrinking health care dollar. Healthcare in the United States is too costly. In 1992, the United States devoted 14% of its Gross Domestic Product (GDP) to healthcare. Healthcare spending currently accounts for 17% of federal spending and this number is projected to rise to a point where it represents two thirds of the growth in federal spending by the end of 1996 (Tyson, 1993). In 1991, the United States per capita health care spending amounted to \$2,867, the highest in a comparison of the United Kingdom, Japan, France, Germany, and Canada (Clark, 1993). Total health care spending as a percentage of GDP accounted for 12.1% in 1991 with a growth rate of 2.7% per year, the highest in a comparison of 24 nations of the Organization for Economic Cooperation and Development (Shieber, Poullier, & Greenwald, 1992). Yet despite this spending, health care outcomes in this country are ranked seventeenth in the world (Dukakis, 1995).

Nursing administration has a significant interest in these excessive health care costs. The nursing labor force is particularly susceptible to efforts aimed at reductions in health care costs. In hospitals, labor costs represent the organization's greatest expense, with nursing resources representing the largest portion of these labor costs (Kocakulah, Hagenow, & Cope, 1990). Themes of restructuring the nursing care delivery system, altering skill mix, and the implementation of patient focused care models are common. While these strategies may demonstrate some degree of effectiveness, their focus is limited to the actual delivery of nursing care. Other opportunities to realize cost savings exist. One of these opportunities relates to job satisfaction and turnover in the registered nurse population.

One would be hard pressed to find disagreement with the fact that turnover of registered

nurses is expensive to the organization. Various costs associated with registered nurse turnover have been reported (Blaufuss, Maynard, & Schollars, 1992; Jones, 1992; Mann, 1989). These costs appear to be a function of the costing methodology used to calculate the dollar amount associated with turnover. One of the more comprehensive costing methodologies completed by Jones (1992) identified that the cost per registered nurse turnover in 1988 ranged from \$6,866 to \$15,152 with an average of \$10,198 in southeastern hospitals. In this study, costs were classified as direct, which included advertising, unfilled positions, and hiring, or indirect, which included orientation, training, and the decreased productivity associated with a new hire. These figures were similar to those reported by Mann (1989) who, using a human capital accounting approach, reported that the initial investment in a new hire approximated \$17,194 in a study of two west coast hospitals. These costs can be expected to increase with time. Jones (1992) updated the 1988 costs of registered nurse turnover to 1991 values using the consumer price index as a measure of inflation. Using this methodology, the average cost of registered nurse turnover in 1991 increased to \$12,147 per nurse. If this costing methodology is accurate, the costs associated with registered nurse turnover are undoubtedly higher today.

A shortage of registered nurses occurred during the period of 1986 to 1991 (Buerhaus, 1994). During this period, the national average for registered nurse vacancy rates rose to 11%, more than double the levels reported during the period (1982-1985) when registered nurse supply and demand were believed to be in balance (Buerhaus, 1994). Registered nurse turnover received significant attention during the period of the nursing shortage. Various explanations for the nursing shortage were postulated. These included market based explanations, focusing on supply and demand statistics, and social-psychological explanations which focused the cause of the nursing shortage on the nursing work environment (Carlson, Cowart, and Speake, 1992).

A popular theme of the social-psychological position revolved around nursing satisfaction and dissatisfaction. This position argued that factors within the context of nursing's work caused nurses to be dissatisfied with their particular jobs as well as nursing in general. This job dissatisfaction purportedly led to high levels of turnover among nurses, exit from the labor force, or exit from the profession of nursing altogether. This assumption could be considered valid as it has received empirical support in the nursing, as well as the social and behavioral science literature (Arnold & Feldman, 1982; Gerhart, 1990; Parasuraman, 1989). If job satisfaction is related to turnover, then an investigation into those factors which promote or detract from job satisfaction appears warranted.

The literature is somewhat unclear as to which factors contribute to job satisfaction in registered nurses. Various investigators have identified dimensions of job satisfaction in registered nurses through exploratory studies (Everly & Falcione, 1976; Mueller & McCloskey, 1990; Slavitt, Stamps, Piedmont, & Haase, 1978; Whitley & Putzier, 1994). The identified dimensions were largely related to the contextual elements of the work setting or work itself. From this perspective, job satisfaction could be deduced to be solely a function of the work environment. Is this premise correct? Is it valid to assume that job satisfaction is a function of the work setting or the job itself? Or are there extra-work correlates of job satisfaction? The nursing literature does not reveal significant efforts in this area of investigation. This could be perceived as a gap in the body of knowledge related to job satisfaction in registered nurses. As Van Maanen and Katz (1976) pointed out:

Certainly, in every day life, considerations about work, self, and family do not exist in isolation from one another. When we think about our own work careers for example we simultaneously juggle such considerations as our own desired accomplishments, the stage

at which we are at in the life cycle, our basic motives and abilities, the wishes and needs of our family, the subtle nuances of the settings in which we carve out work careers, the opinions of our friends and acquaintances, the various political and economic constraints that surround our real or imagined opportunities, and so on (p. 614-615).

This perspective, while some 20 years old, remains a relevant topic for exploration. If we are to believe that work does not exist in isolation from the other activities of daily life, then investigation into the extra-work correlates of job satisfaction is justified. Identification of these correlates can add breadth and depth to the extensive body of literature related to job satisfaction in nursing. Ultimately, this knowledge may direct administrators to appropriate prescriptions for change in the work setting.

This study begins an exploration into the extra-work correlates of job satisfaction in registered nurses. It investigates the relationship between the extra-work correlate of role strain and job satisfaction in the registered nurse population. The few studies which have investigated role strain and job satisfaction in this population have limited their investigation to role strain within the work setting. The conceptualization of role strain in this study, viewed as a phenomenon existing in all aspects of daily life, adds a unique dimension to the study of job satisfaction in registered nurses. A more comprehensive understanding of the complex phenomena of job satisfaction will be gained by viewing those factors outside the work setting which contribute to overall job satisfaction. This understanding will facilitate the development of programs within the work setting which are better suited to enhancing the complex construct of job satisfaction. Employers will be challenged to alter the work setting and context of work to better respond to extra-work conflicts. These efforts will be instrumental in breaking the costly cycle of job dissatisfaction - intention to leave - turnover.

Chapter 2

Review of Literature

This chapter focuses on the review of extant literature relating to the concept of role strain, job satisfaction, and empirical studies of role strain and its relationship to job satisfaction. Prior to discussing role strain, the origins of role theory are briefly discussed for a frame of reference.

Role Theory

Role theory represents a diverse body of knowledge where various social sciences have come together. Roles represent a part of everyday life in each individual. While various definitions of role exist, role commonly is defined as the expected and actual behaviors associated with a position (Hardy & Conway, 1988).

The origins of role theory are linked to a number of theorist's work. One of the earliest theorists was George Herbert Mead. While Mead did not explicitly define "role," he did lay a great deal of the foundation for the symbolic interaction approach to the study of roles. Mead's primary interest was in the mind and self. He posited that the self was a social structure that arose out of social experiences. The mind was believed to manipulate the environment. Through reciprocal relationships the mind and self developed. The complete self was believed to take on the attitudes of the social group, resulting in organized social activity (Strauss, 1956 as cited in Hollander & Hunt, 1972).

Park (1939) took a more organismic view of role. He posited that life began as an individual organism in the struggle for survival with others. Through maturation, the organism became involved in associations with others and social structures. Through a symbiotic relationship between the organism and these social structures, society developed.

One of the first mentions of the concept of role was attributed to Linton in 1945 (as cited in Hollander & Hunt, 1972). Linton proposed a status-role concept. Status was the place in the social system occupied by a person at a point in time. Role represented the total cultural patterns associated with status. Each individual was believed to occupy multiple statuses, with each of these statuses having a role. Linton argued that the roles cannot exist simultaneously. Rather, one role took on an active perspective while others remained latent.

Parsons, in 1951, described a theory of social systems in which roles were an integral part (as cited in Hollander & Hunt, 1972). He theorized that personality and culture influence the functioning and structure of systems. The actual behavior of occupants of the system was believed to be motivated by the need to achieve gratification and avoid deprivation. Individuals within the system were motivated to interact with each other to optimize gratification. Roles were believed to be integrated into a diffuse system of personality.

Merton (1957) presented an expansion of Linton's thoughts on role. Merton proposed the concept of the role-set. Using the same concepts of status and role, Merton argued that each status had not one role, but an array of roles. This array of roles comprised the role set. Implicit within this role set were relationships between members of the role set as well as the occupant of the particular status and the role set. He posited that, for a social structure to operate efficiently, the differing expectations of various statuses within the role set must be clearly articulated.

A more contemporary conceptualization of role theory was presented by Biddle (1979). He described the focus of role theory as the study of persons and their behaviors. Role was defined as "those behaviors characteristic of one or more persons in a context" (p.58). Consistencies with earlier conceptualizations of role are apparent in that Biddle described role being associated with social positions (statuses) and that each of these positions exhibited a

characteristic role.

This diverse body of knowledge termed “role theory” consists of two major theoretical perspectives. These include the social structural perspective and the symbolic interaction perspective. Both perspectives are similar in that they share common concepts. They differ in their level and units of analysis (Hardy & Conway, 1988).

Hardy and Conway (1988) succinctly synthesized the role theory literature and offered an encapsulated view of both theoretical perspectives. The structural perspective focuses on society, social systems, and social structures. It emphasizes individual behaviors that are shaped in response to social structures and systems. The level of analysis focuses on systems rather than individuals. In this perspective, roles are considered to have expectations or demands attached to them. The position of the role(s) in society is relatively fixed. Interaction between individuals and their respective roles is determined by the society’s structure. The concepts of this perspective provide a mechanism for describing social systems related to roles. However, this perspective is limited in its utility in predicting or explaining outcomes which occur.

In contrast, the symbolic interaction perspective of role theory focuses on individuals and their reciprocal interactions within the social structure. Analysis of roles from this perspective focuses on individuals. Social systems are believed to emerge through an individual’s interaction and adaptation to their environment. This perspective uses concepts from the structural perspective, but adds the concepts related to interaction (e.g., perception and communication), self (e.g., identity, significant others, reference group), personal resources (e.g., knowledge, skill, commitment), and social setting (e.g., norms, values, resources).

Both perspectives are limited in their ability to provide a conceptualization that accounts for the wide variety of potential human responses possible in situations. As an alternative,

concepts from both perspectives have been merged into a unitary conceptual framework for the study of role (Figure 1). This framework identifies a reciprocal relationship between role behavior and the social structure. Role behavior is influenced by the social structure, which in turn influences role behavior. The social structure may define the boundaries for role behaviors.

While role theory has been described extensively in the social science literature, little empirical testing of the theory has occurred. Rather, the extensive research incorporating concepts of role theory has been limited to that which is of interest to investigators. Few efforts directed at providing integration of the concepts of this theoretical position or basic research on role have been attempted (Biddle, 1979).

Despite these shortcomings, Biddle (1979) identified five underlying propositions of role theory. He stated:

- a. ...some behaviors are patterned and are characteristic of persons within contexts,
- b. Roles are often associated with a set of persons who share a common identity,
- c. Persons are often aware of roles, and to some extent roles are governed by the fact of their awareness,
- d. Roles persist, in part, because of their consequences (functions) and because they are often imbedded within larger social systems, and
- e. Persons must be taught roles and may find either joy or sorrow in the performances thereof (p. 8).

Role Strain

Role strain was not implicitly described in the work of the early theorists. It was not until the mid 1900s that this concept of role theory was developed. Goode (1960) provided one of the earliest conceptualizations of role strain. This conceptualization was based on a resource supply

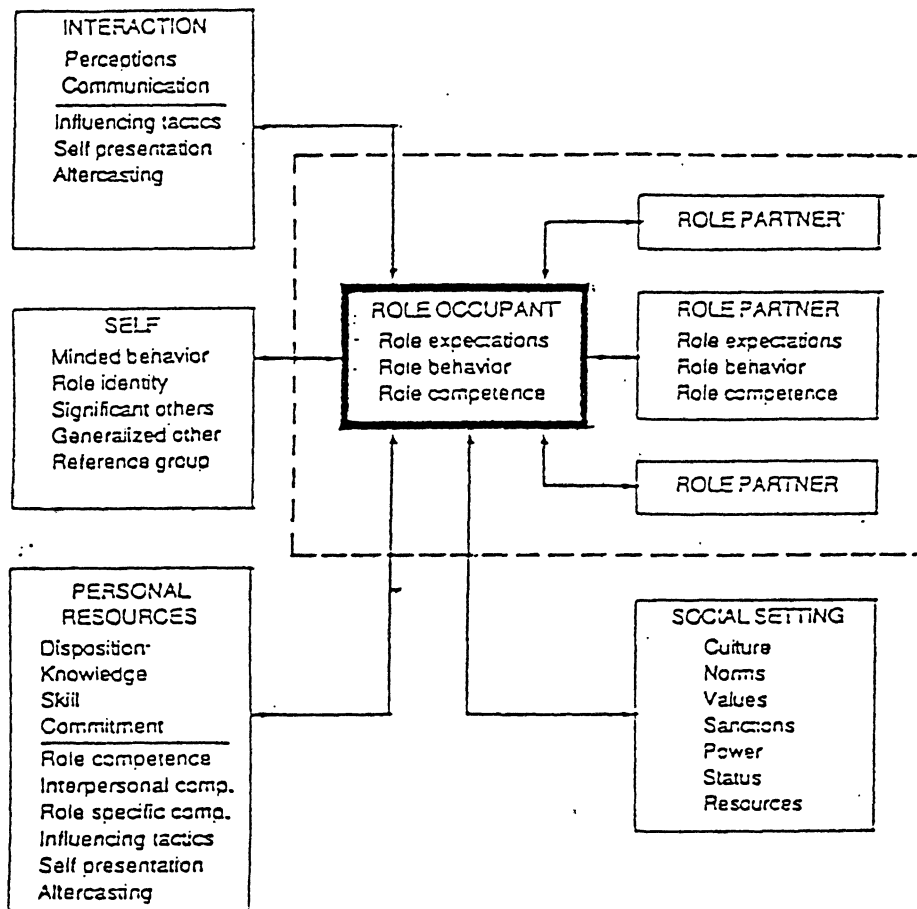


Figure 1. Inter-relationship between the symbolic interaction and structural theories of role.

Concepts from structural theory are enclosed within the broken line; the remaining concepts are representative of symbolic interaction theory. From Role Theory: Perspectives for Health Professionals, 2nd Ed. (p. 167), by Margaret E. Hardy and Mary E. Conway, 1988, Norwalk, CT: Appleton & Lange. Copyright 1988 by Appleton and Lange. Reprinted with permission.

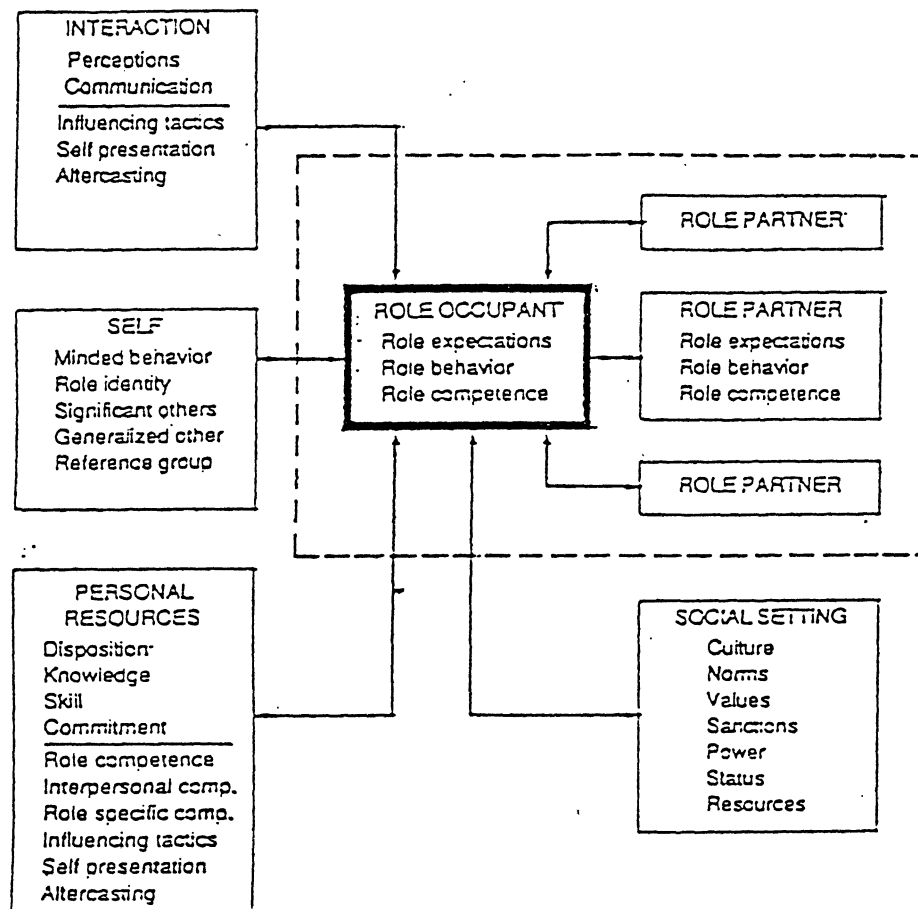


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and demand paradigm. Goode postulated that roles carry obligations with them and that some are unable to conform to these roles or obligations due to situational or individual reasons. Whatever the reason, the underlying premise remained that role strain resulted when individuals lacked sufficient energy and resources to meet role obligations. Demands of roles were such that conformity to the expectations and obligations of each role were not automatic. Rather, many differing roles produced many differing obligations, resulting in a conflict in the allocation of resources.

The direct measurement of role strain as conceptualized by Goode proves problematic. Concepts of role obligation and the energy or resources needed to meet role obligations are not readily amenable to objective measurement. Hardy and Conway (1988) propose that role strain exists within a stress-strain relationship. They describe a problematic social condition (stress) which produces an internal response in individuals (strain). Stress is meant to refer to demands or pressures from external sources. In situations where a problematic condition is one in which role demands conflict, role stress occurs. The subjective reaction of tension or frustration on the part of the role occupant is termed role strain.

Ward (1986) explicated the meaning of role strain by identifying antecedents, intervening conditions, attributes, and empirical referents. Antecedents of role strain were those situations which made the fulfillment of role demands difficult. Examples of these types of situations as related to role included conflict, accumulation, ambiguity, incongruity, and incompatibility. These antecedents were believed to produce role stress. Role stress was moderated by intervening conditions such as location, status, reciprocity, culture, and self-esteem. The combined effects of the antecedents and intervening conditions determined the degree of role strain. Attributes of this phenomenon were described as negative and undesirable states, examples of which included

depression, tension, anger, job dissatisfaction, physiological stress, and guilt. Empirical referents were described as properties of the attributes that lend themselves to observable measurement. While direct measurement of physiological parameters related to physiological stress could be considered an observable measurement of role strain, the measurement of the empirical referents of role strain remains largely indirect and includes such items as fatigue, exhaustion, depression, anxiety, job related tension, job turnover, and absenteeism.

In reviewing the more recent conceptualizations of role strain, it is apparent that the early theorists were aware of this phenomenon. Linton (1945) discussed role conflict, stating that this type of conflict rarely occurred in societies that had existed over time or had a well integrated culture. However, with rapid change, conflict between roles became frequent and both status and roles were subject to decomposition. Parsons (1951) alluded to role conflict/strain occurring when gratification cannot be optimized through individual's interaction with each other. Strain evolved due to the interdependence between the situational and motivational elements of overt action. Merton (1957) proposed that the diverse expectations between the different statuses within the role set may lead to conflict.

The absoluteness of Goode's conceptualization has been challenged. Marks (1977) proposed that energy, time, and commitment are three analytical variables which determine whether multiple role involvement leads to role strain. He postulated that persons construct their role responses to the demand of others. In doing so, they decide which role demands will be honored. Individuals are then able to manipulate their flow of energy among these role demands. Marks proposed that feelings of energy loss (role strain) are a function of an individual's stance toward role partners, rather than a scarceness of biological resources. He postulated that abundant energy can be found for any role activity to which one is committed and that there is no

limit to the expansion of commitment levels. This theoretical position has not received much empirical testing and results thus far have not provided support for these postulates (O'Neil & Greenberger, 1994). The measurement of commitment across roles represents a barrier to adequate testing of this theory (O'Neil & Greenberger, 1994; Marks, 1994).

Some limited empirical research has challenged Goode's conceptualization of role strain (Acorn, 1991; Menaghan, 1989). Evidence points to the quality of experience within each role as well as the congruency of the role combination with norms for age and sex as mediators of role conflict and strain. Multiple role involvement has also been associated with role conflict, but this role conflict was not found to produce anxiety or stress (Barnett & Baruch, 1985). Limited research related to these competing theories as well as methodological issues has limited the generalizability of these findings.

Role conflict, as an antecedent of role strain, may be of an inter-role or intra-role type. Inter-role conflict occurs when simultaneous, competing expectations from differing roles place demands on the individual. Intra-role conflict refers to differing expectations of others for the occupant of a single role (Biddle, 1979; Williams, Suls, Alliger, Learner, & Wan, 1991).

In summary, role strain represents a concept derived from a diverse body of knowledge termed "role theory." Role strain is conceptualized as occurring within a stress-strain relationship. In situations where role demands are in conflict, role stress occurs. A subjective response of tension or frustration on the part of the individual is termed role strain. Antecedents of role strain include role conflict, role accumulation, role ambiguity, role incongruity, and role incompatibility. When not mediated, role strain can produce undesirable and negative consequences including depression, anger, tension, job dissatisfaction, physiological stress, and guilt.

Job Satisfaction

Job satisfaction is of considerable interest to researchers and three reasons for the preponderance of measuring this concept have been identified. These include cultural, functional, and historical. Culturally, as a nation, individual freedoms, personal growth and opportunities are valued. As such, individuals are seen to have the right to a rewarding, satisfying job.

Functionally, satisfaction with one's work has been related to important variables such as absenteeism, turnover, and performance. Historically, job satisfaction measures have evolved from the Hawthorne studies of the 1920s to the current state of research interest in the multidimensional aspects of work (Muchinsky, 1990).

While variant theories of job satisfaction exist, the most widely reported and recognized is Herzberg's two factor theory (Muchinsky, 1990). The two factors, motivators and hygienes, were postulated to be related to satisfaction and dissatisfaction respectively. Motivators possess the ability to satisfy employees. They are factors inherent in the work itself. Presence of a motivator promotes job satisfaction, but absence does not cause dissatisfaction. Rather, absence only fails to promote satisfaction. Examples of motivators include achievement, recognition, responsibility, growth, and advancement. Hygienes, in contrast, are factors which are extrinsic to the work itself. Hygienes possess the ability to cause dissatisfaction with the job. Examples include company policies, working conditions, salary, status, and security (Lambert, Wertheimer, & Johnson, 1980; White & MacGuire, 1973). While conceptually sound, Herzberg's work has been criticized for inconsistent results in replicative studies (Muchinsky, 1990; Wall, Stephenson, & Skidmore, 1971).

Measures of job satisfaction are abundant and range from the very simplistic to the complex. A search of the Health and Psychosocial Instruments Database (Behavioral

Measurements Instruments Services, 1996) identified 592 instruments with a general descriptor of job satisfaction. As job satisfaction has been described as a complex concept (Katz & Van Maanen, 1977), the majority of instruments are fairly complex and represent a variety of subscales.

In the nursing profession, job satisfaction has received considerable attention. This is probably due to the consequences associated with job dissatisfaction. These consequences include turnover, absenteeism, decreased productivity, and propensity to leave the employment setting. These concerns are well founded, as a negative relationship between job satisfaction and these variables has been reported in both the nursing and non-nursing literature (Arnold & Feldman, 1982; Dolan, 1987; Gerhart, 1990; Muchinsky, 1990; Seymour & Buscherhof, 1991).

Considerable attention has been given to those domains of work which are believed to be most representative of the measurement of job satisfaction in registered nurses. Disparate findings among researchers has failed to identify uniform domains of work which contribute to this satisfaction. Slavitt, Stamps, Piedmont, and Haase (1978) identified six factorially independent domains subsumed to contribute to the overall job satisfaction of registered nurses. These domains included pay, interaction, professional status, physician-nurse relationships, task requirements, and autonomy. Similarly, Mueller and McCloskey (1990) identified eight dimensions of job satisfaction in registered nurses. These included the extrinsic reward of work, schedule satisfaction, family/work balance, coworkers, interaction, professional opportunities, praise and recognition, and control/responsibility. Whitley and Putzier (1994) identified six dimensions of job satisfaction which included the work environment, autonomy, work, work relationships, role enactment, and benefits. While some similarities exist among these investigator's work, a variety of opinions exist as to which variables are characteristic of job

satisfaction in registered nurses.

Seymour and Buscherhof (1991) qualitatively identified sources and consequences of satisfaction and dissatisfaction in nursing from a national sample of registered nurses. Sources of satisfaction included the hands-on contact with patients, the self-fulfillment received from daily work, and a general like of the work of nursing. Factors attributed to dissatisfaction included structural problems of the work setting, an incongruence between compensation and skills, hours, working conditions, responsibility and education, lack of respect, recognition, and appreciation, criticisms of the profession, gender role issues, family issues, problems with nursing colleagues, and autonomy, independence, or control issues. Excluding gender role issues and lack of respect, the dissatisfaction factors were also identified as reasons for leaving or contemplating leaving nursing. Although it may be entirely a question of semantics, it is interesting to note that the factors identified as dissatisfiers in the qualitative work of Seymour and Buscherhof (1991) bear a marked similarity to the dimensions of satisfaction identified in earlier exploratory studies (Everly and Falcione 1976; Mueller & McCloskey, 1990; Slavitt, Stamps, Piedmont & Haase, 1978; Whitley & Putzier, 1994).

Two separate meta-analyses of the nursing job satisfaction literature (Blegen, 1993; Irvine & Evans, 1995) identified a common finding in that job satisfaction in registered nurses was strongly associated with stress. Neither of these analyses provided an operational definition of stress. Similarly, in a study of hospital personnel including registered nurses (Sekaran & Jeanquart, 1991), job stress was noted to be significantly related to job satisfaction. In this same study, it was noted that job satisfaction between nursing and non-nursing groups was not significantly different.

With the exception of the mention of family issues identified by Seymour and Buscherhof

(1991), measures of job satisfaction consistently describe factors inherent in the work environment or the work itself as predictors of job satisfaction in nurses. While some empirical support for this premise has been noted, these measures appear incomplete. Schneider and Snyder (1975) identified that job satisfaction consisted of a personal evaluation of the conditions of the job or outcomes of the job itself. These perceptions, however, are filtered and processed through individual norms, values, and expectations. Near, Rice, and Hunt (1978) identified job satisfaction as subordinate to overall life satisfaction and found that work related variables were not associated with life satisfaction. However, extra-work variables were related to job satisfaction when controlling occupation as a covariate. They concluded that factors outside the workplace may influence job satisfaction.

Role strain could be considered to be an extra-work variable which may influence job satisfaction through the stress-strain model proposed by Hardy and Conway (1988). As discussed in the following section, considerable attention and empirical support has been noted for this premise.

Role Strain and Satisfaction

There is an extensive body of empirical research relating to role strain and its effects on job and life satisfaction. Unfortunately, scant research has focused on the nursing profession. The literature relating these two variables is reviewed first, progressing to the limited discussions of role strain and job satisfaction in nursing.

The most frequently appearing concepts related to role strain which have been subject to investigation include role conflict and role ambiguity. The majority of empirical research is descriptive and correlational, which does not allow for causal prediction. Despite this limitation, a significant body of research supporting the relationship between role conflict and satisfaction

outcomes exists.

Miles (1975) identified that role conflict and role ambiguity were significantly correlated with job satisfaction and job related tension in a longitudinal study of male engineers. Role ambiguity was found to cause job dissatisfaction with role conflict representing an indeterminate but directional relationship to this same variable.

Role conflict based on the sender and person-role relationships was investigated by Batlis (1980). Intrasender conflict, where a single member of one's role set sent incompatible expectations of the role, was noted to be the best predictor of job satisfaction.

Stout and Posner (1984) studied the relationship between stress, role conflict, and role ambiguity and correlated these measures with job satisfaction in a sample of service workers in mental health and rehabilitation facilities. High stress levels were associated with high role ambiguity and low job satisfaction. The relationship between stress and role ambiguity was significantly stronger than the relationship between stress and role conflict. When controlling for role ambiguity, the investigators noted there was no significant relationship between role conflict and stress. However, when controlling for role conflict, a significant relationship between role ambiguity and stress was noted. The investigators concluded that role ambiguity is more strongly associated with stress than is role conflict.

A significant amount of the literature related to role conflict/ambiguity and satisfaction measures relates to the relationship between work and family roles. A significant subset of this body of research relates to gender differences between role strain and satisfaction measures. Gender differences are of significant interest since a position exists that women's roles operate simultaneously while men's roles operate sequentially (Duxbury & Higgins, 1991; Moen, 1992; Williams, Suls, Alliger, Learner, & Wan, 1991).

Spillover from the work to home domain was investigated by Crouter (1984) in a sample of 38 men and 17 women in the manufacturing industry. Subjects represented a cross section of married and unmarried participants as well as those with children and those without children. Most respondents noted that family life had an impact on work life with the exception of two groups. The young, unmarried men and the women without children described no impact of their family life on their work situation. Mothers of children 12 and under noted a higher incidence of spillover from home to work than did the fathers of these children. The investigators concluded that spillover from work to home is not a gender issue per se, but a function of family roles and responsibilities that are gender based in our society. Similar findings were noted by Kelly and Voydanoff (1985) in which they concluded that the nature of family life has an important impact on an individual's response to work/family role strain in working parents.

The findings related to spillover between work and home have been challenged. In a longitudinal study of married couples, it was noted that spillover from home to work occurred more frequently in men than in women. A conclusion that women are socialized to manage multiple roles simultaneously was offered (Bolger, DeLongis, Kessler, & Wethington, 1989).

In a sample of 238 females, Barnett and Baruch (1985) noted that, while an increase in the number of roles produced role conflict and role overload, it did not necessarily produce anxiety. Role overload's relationship to anxiety was significant in the total sample and the subset of the unemployed. Role conflict's relationship to anxiety was significant in only the subset of unemployed.

The combination of roles and their relationship to well being was investigated by Menaghan (1989). This study extended the conceptualization of role strain by moving beyond an absolute number of roles, examining specific role combinations. An inverse relationship was

noted between the number of roles enacted and psychological symptomatology. However, several roles demonstrated no impact on the appearance of psychological symptoms when these roles were enacted. The highest frequency of psychological symptoms occurred in individuals who fulfilled none of the three expected social roles for their gender. Men's expected complement of social roles included marriage, childrearing, and employment. Women's expected social roles included marriage, childrearing, and unemployment. The investigator concluded that specific role combinations and gender appropriateness of these role combinations are meaningfully associated with psychological symptoms.

Conflicting evidence to the gender appropriate role combination position has been presented. Recent work has demonstrated that work overload alone predicted distress. Family roles were not related to well being (Noor, 1995).

Role Strain and Job Satisfaction in Nursing

Role attributes and their relationship to measures of satisfaction within nursing have been limited. Bedeian and Armenakis (1981) identified that role conflict and role ambiguity significantly correlated with tension, job satisfaction, and propensity to leave the organization in a sample of nursing personnel from all levels of a Veteran's Administration institution. They proposed a path diagram in which role conflict and role ambiguity led to tension, this tension correlated negatively with satisfaction, which in turn correlated negatively with propensity to leave the organization. Although not implicitly identifying role ambiguity or role conflict, Hinshaw, Smeltzer, and Atwood (1987) proposed a similarly structured model in which job stress showed a negative correlation with job satisfaction. In this model, job satisfaction negatively correlated with anticipated turnover.

Work to home conflict among nurses was studied by Bacharach, Bamberger, and Conley

(1991). Work to home conflict was noted to have a significant effect on job burnout, but an insignificant, direct effect on job satisfaction. Job burnout was conceptualized based on the definition proposed by Jackson, Schwab, and Schuler's study (as cited in Bacharach, Bamberger, & Conley, 1991) It was defined as a " 'state of emotional exhaustion caused by psychological and emotional demands made on people both on and off the job' "(p. 44). In this study, the only antecedent of work to home conflict was role conflict. However, quantitative role overload, but not role conflict, had a significant effect on burnout. It was concluded that work to home conflict, producing spillover between work and home had an indirect effect via burnout on job satisfaction.

Some support for the causal model presented by Bedeian and Armenakis (1981) was demonstrated in a study of hospital based nurses by Pilkington and Wood (1986). They investigated role conflict and role ambiguity's relationship to job satisfaction and propensity to leave the organization in full time, part time, and per diem hospital based registered nurses. Role conflict and role ambiguity were significantly related to job satisfaction in all groups except the per diem group. In the per diem group only role conflict, and not role ambiguity, was related to job satisfaction. Role conflict and role ambiguity in combination were significantly related to propensity to leave the organization in the permanent, part time workers. Role ambiguity was singularly related to propensity to leave in the full time workers. Role conflict was the only variable related to propensity to leave the organization in the per diem workers.

Acorn (1991) examined the relationship between role conflict/role ambiguity and outcome measures of social support, job satisfaction, and propensity to leave in university nurse faculty members holding joint academic/clinical roles or the traditional academic role. Role conflict and role ambiguity were higher for traditional faculty roles although this finding was not statistically

significant. Both role conflict and role ambiguity demonstrated significant correlation with job satisfaction. Role conflict was more prevalent than role ambiguity. The investigator concluded that multiple role involvement does not necessarily lead to role conflict or role ambiguity.

The body of knowledge related to role conflict and role ambiguity's relationship with outcome measures is vast and not without some disparity in findings. These findings though, must be interpreted within the context of methodological weaknesses identified. A significant number of these studies have a common issue related to instrumentation (Acorn, 1991; Bacharach, Bamberger, & Conley, 1991; Batlis, 1980; Bedian & Armenakis, 1981; Pilkington & Wood, 1986). The measure of role conflict and role ambiguity used in each study was that which was proposed by Rizzo, House, and Lirtzman (1970). This scale was specifically designed to measure role conflict and role ambiguity in the organizational setting. As noted previously, the role set of an individual is a collection of statuses and the roles associated with each status. The measure of role conflict and ambiguity from strictly an organizational perspective limits the utility of these findings in the overall discussion of role conflict's relationship to outcome measures of satisfaction. As Batlis (1980) stated "Role conflict is not a unitary construct, although many investigators have treated it as such" (p. 179).

Additional methodological issues noted in these studies warrant discussion. Studies examining the number of roles held and their relationship with various outcomes (Acorn, 1991; Barnett & Baruch, 1985; Menaghan, 1989) investigated a limited number of roles, e.g., spouse, worker, parent, friend, organization member. There are certainly more roles which are possibilities. Examples include student, provider of care for parent, and significant other not related by marriage. The use of single measures of the concept of role ambiguity and job satisfaction (Barnett & Baruch, 1985) must question the robustness of these findings. Single

measures are historically unreliable, imprecise, and underrepresent measurement of broad concepts (Spector, 1981). Nonrandom and convenience sampling limit the generalizability of results in a number of studies (Noor, 1995; Pilkington & Wood, 1986). Low response rates (20-25%) have also been reported (Batlis, 1980; Kelly & Voydanoff, 1985).

A discussion of the instrumentation used in the measurement of job satisfaction is also warranted. The search for causative factors influencing job satisfaction has been extensive. Despite this volume of information, the importance of many of the hypothesized factors remains unclear (Blegen, 1993). The investigation of job satisfaction in nursing appears to be dominated by instruments constructed of facet (dimension) scales. Facet scales are assumed to cover the principal areas within a broad domain (Ironson, Smith, Brannick, Gibson, & Paul, 1989). This contrasts with global scales. Global scales are useful to estimate respondent's overall feelings regarding, in this case, job satisfaction. The equivalency of these different types of scales in the measurement of a concept, in this case job satisfaction, is not clear.

Ironson et al. (1989) identified that there are major differences between facet scales and global scales. Facet scales, due to their factorial design, may omit some areas which may be important measures of the overall concept. They may include items or areas of little importance to a particular individual. As facet scales are characterized by a descriptive as well as evaluative component, they may not fully reflect the individual's general affect. The frame of reference for facet and global scales is conceptually different. Facet scales tend to elicit a short term response, while global scales tend to require a respondent to combine and process various aspects into an overall integrated response.

Ironson et al. (1989) demonstrated that global measures were not equivalent to summated, facet scales in the measurement of job satisfaction in their analysis of data from three large

heterogeneous samples ($N = 1149, 3566, \text{ and } 4499$). They concluded that global measures were appropriate for prediction of general affective responses, but that facet scales were more appropriate for measuring response(s) to treatment. The nursing literature does not report the general use of both types of scales in the measurement of job satisfaction. Rather, there appears to be a bias toward the use of facet scales. Whether this is intentional or represents an incomplete approach to the measurement of job satisfaction in registered nurses remains unclear.

Based on this review of literature, a conceptual model has been derived which guides the focus of inquiry for this study. Individuals may occupy multiple roles. Examples of these role possibilities include worker, spouse, parent, student, provider, and/or friend. As a result of the socialization and maturation processes, women's roles tend to occur simultaneously while men's roles tend to occur sequentially. These roles collectively may produce strain or conflict when demands for energy and resources from each role compete. Anxiety, tension, and stress are reported as consequences of this strain. As job satisfaction is subordinate to overall life satisfaction, life experiences that contribute to role strain may have an effect on job satisfaction. The number of roles an individual occupies may contribute to role overload, an antecedent of role conflict, and role strain. The effect of the number of roles occupied may be mediated by the time spent in each of these roles and the overall quality of perceived performance within each role. For the purposes of this study, role strain is defined as a subjective response of tension or frustration which occurs when role demands conflict (Hardy & Conway, 1988). Job satisfaction is defined as an overall evaluation of the job itself filtered and processed through individual norms, values, and expectations (Schneider & Snyder, 1975).

Based on this model and the review of literature, the following research questions have been identified. All research questions are assumed to be related to the registered nurse

population.

1. Is role strain related to job satisfaction?
2. Is the number of roles occupied related to role strain?
3. Is the amount of time spent in roles related to role strain?
4. Is the perceived satisfaction with performance in roles related to role strain?
5. Are there gender specific differences in the relationship between role strain and job satisfaction?

Based on these research questions, specific hypotheses for testing have been derived. Once again, all hypotheses relate to the population of registered nurses.

- H1. Role strain is inversely related to global job satisfaction.
- H2. Role strain is positively related to the number of roles occupied.
- H3. Role strain is positively related to the amount of time spent in roles.
- H4. Role strain is inversely related to the perceived satisfaction with performance in roles.
- H5. Gender specific differences in the relationship between role strain and job satisfaction exist.

This research was carried out using a cross-sectional design. This design is appropriate in that subjects were not exposed to manipulation and measurement occurred at one point in time. This approach is useful in determining if two variables are related (Spector, 1981). Additionally, as role strain's relationship to global job satisfaction has not received a great deal of attention in the research literature, it is appropriate that the relationship between these phenomena is explored before proceeding with more complex research designs.

Chapter 3

Methodology

This study investigated role strain as an extra-work correlate of job satisfaction in the registered nurse population. This chapter describes the sample and sampling strategies, instrumentation, and analysis of data in this study.

Sample

The target population for this study was all registered nurses who possess an active license to practice nursing. The accessible population was all registered nurses in the state of Florida. A listing of addresses of all registered nurses in the state of Florida was obtained from the Department of Professional Regulation. This listing was provided on a 9 track magnetic tape which was converted into a database file. Those with an inactive nursing license as well as those licensed as advanced registered nurse practitioners were deleted from the file. This action yielded a sampling frame of 132,254 registered nurses.

Power analysis calculations (Polit & Hunger, 1991) were completed to determine the appropriate sample size for this study. Prior research on the correlation between role strain, role conflict, and/or role ambiguity and job satisfaction had yielded an average effect size of .20. Assuming an alpha level of .05 and power of .80, a sample of 197 was determined to be the minimally acceptable sample size. As measurement through mailed surveys is subject to non-response, this number was increased to account for non-respondents. Polit and Hungler (1991) identified a response rate of 60% as the lower level of adequacy. Based on this information, a sample size of 315 was determined. This number should have accounted for nonrespondents while maintaining sufficient power.

The registered nurse database was accessed and a sample of 315 registered nurse names

and address was randomly generated. Mailing labels were generated for each member of this sample.

Measures

The Health and Psychosocial Instruments database (Behavioral Measurement Services, 1996) was searched in an attempt to locate an established measure of role strain. Those instruments retrieved in this search were deemed inappropriate for this study as they appeared to be population specific and not representative of the construct of role strain as a component of daily life. Therefore, a scale to measure role strain as a general construct was specifically created for this study. The procedures employed in development of the instruments used in this study are described below.

Instrument Development. A battery of 21 items was derived from the descriptions of role strain described in the literature. Statements were worded in a declarative manner. Respondents were asked to indicate their level of agreement with each statement using a five-point scale where 1 = strongly disagree and 5 = strongly agree. A neutral response was included in the scale at the value of 3.

Items were worded both positively and negatively. The second portion of this scale asked respondents to rate how often they were experiencing selected physical symptoms. These symptoms included dizziness, headaches, nausea, shortness of breath, fatigue, and trouble sleeping. These items have been identified as consequences of role strain in the literature (Hardy & Conway, 1988; Orpen, 1982; Ward, 1986).

This initial scale was administered to a convenience sample of 74 registered nurses. Returned scales were examined for completeness. Scales were excluded from the analysis if any of the statements did not have a response. This action yielded a final response set of 65. This

response set was analyzed using the Number Cruncher Statistical System software, version 6.0 (Hintze, 1995).

A correlation matrix of the 21 items selected to tap the construct of role strain was created. The initial Cronbach's Alpha for this scale was .78. An examination of the correlation matrix revealed a number of items which correlated negatively with other items in the matrix. These items were deleted from the scale under the assumption that, if the scale represented role strain as a single construct, all items should be positively correlated. The content of remaining items were examined in terms of their congruency with descriptions of the construct of role strain as described in the literature. Two additional items were deleted as they appeared to be more representative of satisfaction with performance in roles rather than role strain. The final scale consisted of 10 items.

Validity of this scale was assessed using techniques from the scale validation strategy described by Spector (1981). It was hypothesized that the overall role strain score, obtained by summing the responses from each of the 10 statements, would correlate positively with the physical symptoms of role strain listed in the second part of the scale. Significant positive correlations ($p < .05$) were noted between the role strain score and five of the six physical symptoms. The only symptom which did not have a significant correlation with the role strain score was dizziness. Based on these results, some empirical support for the validity of this scale is implied.

Reliability calculations were completed for the revised role strain scale in this research. Cronbach's Alpha for this scale was calculated at .83 in the initial pilot sample. The Cronbach's Alpha for this scale was .82 in this study.

Job satisfaction was measured through the use of a global job satisfaction scale specifically

constructed for this inquiry. This scale consisted of 4 items which tapped the overall affective response to satisfaction with work. Two items described the affective response to global satisfaction through reworded phrases. The other two items were derived from the qualitative study of Seymour & Buscherhof (1991). These items described those aspects of work which were identified as most satisfying in a sample of registered nurses. Pre-testing of this scale was completed on a sample of 24 registered nurses enrolled in graduate studies at the University of Tampa. Cronbach's alpha for this scale was calculated at .91 in the initial pilot sample and .89 in this study.

Additional measures were included in the instrument. Respondents were asked to identify some additional information related to the roles they occupy. They were asked about the number and types of roles they occupy, the time commitments associated with each role, and their perceived satisfaction with their performance in each role. A listing of the commonly occurring roles (e.g., worker, parent, provider, friend, organization member, worker in second job) was provided. Respondents were asked to estimate the percentage of time spent in each role during a typical week. These values were summed to arrive at an overall time commitment to roles. They were also be asked to rate their perceived satisfaction with their performance in each of these roles on a three point scale where 1 = not satisfied, 2 = somewhat satisfied, and 3 = highly satisfied. These values were averaged to arrive at an overall satisfaction level for performance in roles. Additional spaces were provided for respondents to write in roles which they occupy that were not listed on the questionnaire. At the bottom of this portion of the questionnaire, respondents were invited to share their experiences in multiple roles in a narrative format.

Demographic variables related to this study and the population of registered nurses in general were also collected. Variables in this section included sex, marital status, age, number of

children and their ages, basic nursing education, highest degree held, current position, number of years in current position, number of years in nursing, and their work setting. These variables were dummy coded (Burns & Grove, 1987) to facilitate data analysis.

Procedure

Survey packets were mailed to the addresses generated from the database file of active registered nurses in the state of Florida. Each packet included a cover letter which outlined the purposes of the study, a description of procedures to maintain confidentiality, the phone number for the investigator, the survey instrument, and a pre-addressed postage paid reply envelope. A time frame of two weeks for return of the completed survey packet was established. The survey packet is located in Appendix A.

Data Analysis

Data analysis involved both descriptive and inferential statistics. Survey data were analyzed using the Number Cruncher Statistical Systems (NCSS) software package (Hintze, 1995). Survey information was summarized using percentages for categorical data and mean values with standard deviation for interval data.

A number of correlations were completed using the survey information. Individual role strain and job satisfaction responses for each of the survey items were summed to arrive at an overall role strain and job satisfaction score for each respondent. The role strain score was correlated with the job satisfaction score. Role strain was also correlated with the number of occupied roles. Role strain was correlated with the total amount of time spent in roles as well as the average perceived satisfaction with performance in roles. Correlation coefficients were calculated between role strain and job satisfaction for subsets of the entire sample based on gender. These results were compared in terms of the magnitude of the correlation coefficient and

the statistical significance of the result. All correlation calculations used the Pearson Product Moment Correlation.

Additional analyses of the survey data was undertaken in an attempt to provide further information related to the findings of hypothesis testing. Correlation matrices were constructed to examine the relationship between role strain, job satisfaction, and the demographic variables. Another analysis examined job satisfaction from the perspective of high and low role strain. For this analysis, the sample was divided into two groups at the median based on the role strain scores. This produced two groups of subjects, those with high role strain (greater than median) and those with low role strain (less than median). Job satisfaction scores for these groups were compared utilizing analysis of variance.

An analysis was undertaken to determine if gender specific differences were present in the response to any of the individual items of the role strain and job satisfaction scales. For this analysis, the sample was split into male and female groups. Two tailed t-test were used to examine differences between these groups on each of the individual scale items.

The most frequently occurring role combination profiles were analyzed in relationship to overall role strain and job satisfaction. In this analysis, the overall role strain and job satisfaction scores for all possible combinations of the role profiles were compared utilizing two tailed t-tests.

Chapter 4

Results

This chapter presents the results of the analysis of survey data. The primary hypothesis, that there was an inverse relationship between role strain and job satisfaction, was supported. Several of the additional hypotheses were also supported. The results of each analysis and the outcome of the corresponding hypothesis are discussed. The results of the secondary analysis of data not related to hypothesis testing are also reported. A description of the general sample characteristics from which these results were obtained will provide a context for understanding the outcomes. The specific hypotheses tested were:

- H1. Role strain is inversely related to job satisfaction.
- H2. Role strain is positively related to the number of roles occupied.
- H3. Role strain is positively related to the amount of time spent in roles.
- H4. Role strain is inversely related to the perceived satisfaction with performance in roles.
- H5. Gender specific differences in the relationship between role strain and job satisfaction exist.

General Sample Characteristics

A total of 315 surveys were mailed to registered nurses in the State of Florida. Of the 315 mailed, five were returned as undeliverable. Of the remaining 310 surveys, 103 were returned, representing a 33.2% response rate. Two respondents indicated that they had retired from nursing and therefore, did not complete the survey. One respondent was unable to complete the survey due to illness. Two surveys were excluded because they were incomplete on some component of the survey relating to the hypotheses. A final sample size of 98 completed surveys

was subjected to analysis. This sample size represented a 31.1% usable response rate.

Descriptive statistics of the demographic variables are presented in Table 1. The respondents were predominantly female (92.8%), married (75.2%), without children in the less than 12 (54.1%), the 12-18 (68.5%), or the greater than 18 (83.1%) age groups. The majority of respondents were in the 40-49 age range (38.2%), followed closely by the 30-39 age group (35.96%). The majority of respondents (45.9%) described an associate degree as their basic nursing education. The highest degree held by the majority of the sample was the baccalaureate (38.2%). A high percentage of this sample (35.05%) had been in the profession of nursing for greater than 20 years. The majority of respondents (54.08%) have held their current position for between one and five years. They typically work between 33 and 40 hours per week (42.27%) followed closely by those who reported working greater than 40 hours per week (35.05%). A large percentage (61.66%) reported holding staff nurse positions, with the hospital being the most frequently reported work setting (50.52%). An "other" category was listed on the survey for respondents to identify their position or employment setting if it did not fit into one of the categories. While the position descriptors were varied, a large number (40%) of those who indicated an "other" employment setting described home health as the setting. Frequency tables of the "other" responses to type of position and employment setting are located in Appendix B and Appendix C.

Descriptive Data

The primary variables for this study included overall role strain, overall job satisfaction, the number of roles occupied, the total percentage of time spent in those roles, and the overall satisfaction with performance in those roles. Descriptive statistics for each of these study variables for the aggregate sample are presented in Table 2. As one of the hypotheses involved

Table 1

Sample Characteristics

Variable	%
Gender (n=98)	
Female	92.86
Male	7.14
Marital Status (n=97)	
Single	10.31
Married	75.26
Divorced	10.31
Separated	3.09
Widowed	1.03
Number of Child Living in Household	
Less than 12 year of age (n=72)	
0	54.17
1	19.44
2	18.06
3	6.94
4	1.39
Between 12 and 18 years of age (n=70)	
0	68.57
1	21.43
2	8.57
3	1.43
Greater than 18 years of age (n=71)	
0	83.10
1	14.08
2	2.82
Age (n=89)	
20-29	4.49
30-39	35.96
40-49	38.20
50-59	13.48
60 or greater	7.87
Basic Nursing Education (n=98)	
Diploma	28.57
Associate	45.92
Baccalaureate	25.51

Table 1, continued

Variable	%
Highest Degree Held (n=97)	
No degree	22.68
Associate	30.93
Baccalaureate	39.18
Master's	7.22
Number of Years in Nursing (n=97)	
Less than 1	4.12
1-5	15.46
6-10	12.37
11-15	15.46
15-20	17.53
greater than 20	35.05
Number of Years in Current Position (n=98)	
Less than 1	12.24
1-5	54.08
6-10	20.41
11-15	7.14
15-20	3.06
greater than 20	3.06
Number of Hours Worked per Week (n=97)	
Less than 16	5.15
16-23	2.06
24-32	15.46
33-40	42.27
Greater than 40	35.05
Type of Nursing Position (n=97)	
Staff Nurse	61.86
Management	13.40
Clinician/Clinical Specialist	2.06
Researcher	1.03
Not Employed in Nursing	3.09
Other	18.56

Table 1, continued

Variable	%
Employment Setting (n=97)	
Hospital	50.52
Outpatient Facility	7.22
Business	6.19
Not Employed	1.03
Other	35.05

Table 2

Descriptive Statistics of Study Variables

Variable	Mean	SD	Median	Mode	Range
Role Strain ^a	33.22	6.80	35	37	18-47
Job Satisfaction ^b	14.52	3.34	15	16	5-20
Number of Roles	4.68	1.56	5	5	1-8
Percent of Time in Roles	164.84	94.95	122.5	100	30-490
Overall Satisfaction in Roles	2.34	0.46	2.38	2	1-3

^aHigh number represents high role strain

^bHigh number represents high job satisfaction

gender differences, descriptive statistics for the female and male subsets of the sample were calculated. These statistics are presented in Table 3.

Hypothesis Testing

Inferential statistics are presented for each hypothesis tested in this study. Hypothesis one stated that there would be an inverse relationship between role strain and job satisfaction. This hypothesis was supported. The Pearson Product-Moment Correlation between these two variables was significant ($r = -.24, p = .01$). Hypothesis two stated there would be a positive relationship between role strain and the number of roles occupied. This hypothesis was supported. The Pearson Product-Moment Correlation between these two variables was significant ($r = .32, p = .001$). Hypothesis three stated that role strain would be positively related to the percentage of time spent in roles. This hypothesis was not supported. The Pearson Product-Moment Correlation between these variables was not significant ($r = .12, p = .22$). Hypothesis four stated that there would be an inverse relationship between role strain and the perceived overall satisfaction with performance in roles. This hypothesis was supported. The Pearson Product-Moment Correlation between these two variables was significant ($r = -.39, p = .00005$). The correlation matrix for these study variables identified some significant findings not related to the testing of hypotheses. A significant relationship was noted between overall job satisfaction and the overall satisfaction with performance in roles ($r = .34, p = .0004$). Although expected, the number of roles did have a significant, positive correlation with the percentage of time spent in roles ($r = .28, p = .004$). The correlation matrix for these variables is presented in Table 4.

Hypothesis five stated that gender specific differences in the relationship between role strain and job satisfaction existed. This hypothesis could not be adequately tested. In the female

Table 3

Descriptive Statistics of Study Variables by Gender

Variable	Mean	SD	Median	Mode	Range
Females:					
Role Strain ^a	33.36	6.89	35	37	18-47
Job Satisfaction ^b	14.43	3.35	15	16	5-20
Number of Roles	4.68	1.56	5	5	1-8
Percent of Time in Roles	168.57	97.34	127	100	30-490
Overall Satisfaction in Roles	2.32	0.46	2.33	2	1-3
Males:					
Role Strain ^a	31.42	5.65	31	25	25-41
Job Satisfaction ^b	15.57	3.20	16	16	9-19
Number of Roles	4.71	1.60	4	4	3-8
Percent of Time in Roles	116.42	23.57	110	100	90-155
Overall Satisfaction in Roles	2.57	0.33	2.75	2.75	2-3

^aHigh number represents high role strain^bHigh number represents high job satisfaction

Table 4

Correlations Between Study Variables¹

	Role Strain	Job Satisfaction	Number of Roles	Percentage of Time in Roles	Overall Role Satisfaction
Role Strain	----				
Job Satisfaction	-.24 (.016)	----			
Number of Roles	.32 (.011)	.12 (.207)	----		
Percentage of Time in Roles	.12 (.022)	-.035 (.731)	.28 (.004)	----	
Overall Role Satisfaction	-.39 (.000)	.34 (.000)	-.03 (.708)	.02 (.812)	----

¹Values in parentheses represent p values

subset, the Pearson Product-Moment Correlation was significant ($r = -.22, p = .03$). In the male subset, the correlation was not significant ($r = -.50, p = .249$). These results are presented in Table 5. However, power calculations for the male subset were considered too low to draw meaningful inferences from these results. The power for this correlation in the female subset was .55. In the male subset, power was calculated at .19. A random sample of seven respondents was drawn from the female subset of the role strain scores. This number was equal to the number of male respondents in the sample. Analysis of variance between males and females on the role strain scores did not reveal statistically significant results ($F = .15, df = 1, 12, p = .70$).

Secondary Analysis of Study Data

Additional data analysis, not related to specific hypothesis testing, was completed. Role strain was correlated with the demographic variables using the Pearson Product-Moment Correlation. One relationship demonstrated significance. The relationship between role strain and the number of children less than 12 years of age was significant ($r = .23, p = .04$).

A correlation matrix was also constructed to examine the relationship between job satisfaction and the demographic variables. The Pearson Product-Moment Correlation was significant for the relationship between job satisfaction and age ($r = .24, p = .018$). Additionally, significant correlations were noted for the relationship between gender and number of years in nursing ($r = -.22, p = .024$) and the relationship between marital status and type of nursing position ($r = .27, p = .006$).

Job satisfaction as a function of role strain was analyzed by dividing the sample into two groups based on the median role strain score. This action produced two groups of respondents, those with high role strain (greater than median) and those with low role strain (less than median). Analysis of variance did not reveal statistically significant differences between these groups on job

Table 5

Correlation Between Role Strain and Job Satisfaction, by Gender¹

	Job Satisfaction
Females	
Role Strain	-.22
	(.034)
Males	
Role Strain	-.50
	(.249)

¹Values in parentheses represent p values

satisfaction scores ($F = 2.05$, $df = 1,96$, $p = .15$).

Individual items comprising the role strain and job satisfaction scales were examined by gender grouping. Two tailed t-tests for individual scale items did not reveal any statistically significant differences. A table describing these results is located in Appendix D.

Three distinct role profiles emerged from the data. These included spouse-worker-parent, spouse-worker-parent-friend, and spouse-worker-parent-friend-organization member. Six distinct profile combinations were examined on the variables of role strain and job satisfaction. Two tailed t-tests were used to test for significant differences between role strain and job satisfaction in each of the profile combinations. Two of the six profile combinations demonstrated statistically significant differences in role strain. Examination of the profiles revealed that statistically significant results were obtained between the profiles comprised of three and five roles and the profiles comprised of four and five roles. Significant differences were not noted between the profiles consisting of three and four roles. None of the profile combinations demonstrated statistical significance regarding job satisfaction. The results of this analysis are presented in Table 6.

In summary, three of the five hypotheses of this research were supported. One hypothesis was unable to be tested adequately. The findings from the secondary analysis of survey data provides some further information regarding the primary variables under investigation. Chapter 5, which follows, discusses possible explanations for the results of these findings. It also discusses the findings from this research relative to the current state of knowledge regarding role strain, job satisfaction, and the relationship between role strain and job satisfaction.

Table 6

T-Tests of Role Profile Combinations on Role Strain and Job Satisfaction

	Mean	SD	t	p
Role Strain				
Profile 1	29.75	4.71	-1.578	.135
Profile 2	33.33	4.63		
Profile 1	29.75	4.71	-4.380	.0008
Profile 3	39.0	2.36		
Profile 2	33.33	4.63	-2.741	.016
Profile 3	39.0	2.36		
Job Satisfaction				
Profile 1	14.37	5.23	0.687	.50
Profile 2	12.88	3.62		
Profile 1	14.37	5.23	0.493	.630
Profile 3	13.16	3.31		
Profile 2	12.88	3.62	-0.150	.882
Profile 3	13.16	3.31		

Profile 1: Spouse-Parent-Worker

Profile 2: Spouse-Worker-Parent-Friend

Profile 3: Spouse-Worker-Parent-Friend-Organization Member

Chapter 5

Discussion

This chapter presents a discussion of the results of hypothesis testing and the secondary analysis of data. These results are summarized, followed by possible explanations for the findings, and the integration of the findings with existing literature. Limitations of this study as well as future directions for research on role strain and job satisfaction in the registered nurse population are presented. Practice implications are also discussed.

Summary of Results

Individuals reported occupying multiple roles, with females identifying a greater number of roles than males. An increase in the number of roles tended to produce a higher degree of role strain. This finding was not gender specific. Role strain showed a small but significant negative correlation to job satisfaction. Factors shown to be positively correlated with role strain included the number of roles occupied, the overall perceived performance in roles, and the number of children less than 12 years of age residing in the household.

Gender specific measurement of the individual items comprising the role strain and job satisfaction scales did not demonstrate statistically significant differences. Gender specific correlations between role strain and job satisfaction did show some differences, with females demonstrating a statistically significant relationship between these variables while their male counterparts did not. These results have limited utility due to the low number of males in the sample population. Job satisfaction was noted to be positively correlated with age, with older respondents reporting greater job satisfaction. Incidental findings also noted that a significant relationship between gender and number of years in nursing existed. Females tended to report a longer tenure in nursing than did their male counterparts.

Explanation of Findings

The explanation of findings from this study is organized according to the major hypotheses which were tested, followed by the findings from the secondary analysis of data.

Role Strain and Job Satisfaction. Role strain was found to be inversely related to global reports of job satisfaction. This finding would support the premise that role strain transcends all aspects of daily life and cannot be compartmentalized. Job satisfaction could be considered a subordinate component of life satisfaction. If this line of thinking is accurate, then role strain, as a component of daily life, would have an effect on job satisfaction. Based on this research, this premise appears to be correct. In this study, role strain showed a significant, but small relationship to job satisfaction. The variance shared by the relationship between these two factors is small (5.76%). Despite this, role strain can be assumed to be an extra-work correlate of job satisfaction. This finding must force one to question the utility of measuring job satisfaction from a purely work perspective.

Role Strain and Number of Roles Occupied. The finding that the number of roles occupied showed a significant, positive relationship to role strain is not surprising. Every role can be assumed to carry some behavioral or time expectations. Some roles in an individual's role repertoire may be fixed, with role behavior occurring at a certain location for a certain period of time. An example of this type of role would be that of worker. Other roles may carry less structured expectations, such as the role of parent. These roles however, may exist simultaneously. One does not cease being a parent when entering the worker role. Rather, the parent role may take a subordinate position to the worker role. This position, however, could be subject to change. For example, if a parent is in their worker role, and becomes notified of a sick child, the parent role may take on a more primary focus. This explanation is validated from a

number of comments received on the survey instrument where respondents were invited to share their experiences in occupying multiple roles. One respondent wrote:

[Being a] parent occupies 100% of all time. Twenty five percent [of this time] is perhaps actual...

Another respondent wrote:

I work 7pm-7am shift two times per week in a NICU. I love my job, but the demands placed on me to do overtime and go to extra meetings is difficult. I enjoy being home with my husband and three young children so our schedules are very busy and our evenings are rare together as my husband and I flex our schedules so one of us is always taking care of our children.

Another respondent, while less concrete in her discussion of multiple role involvement, described her perception of the complement of roles within her role repertoire. She stated:

My family will always come first. Wherever I am, I consider myself a woman first, a wife second, and all others can compete for their time.

Finally, another respondent described the difficulty in finding enough time to meet her obligations in multiple roles. She related:

As a mother of three teenage children and working two part-time jobs, scheduling time for everyone and every activity is difficult...

These comments, coupled with the finding that the number of roles occupied is positively related to role strain indicates that all roles carry some time and behavioral expectations with them. For some roles, these expectations are fixed and finite (e.g. worker) while in other roles they are more fluid and constant (e.g.. parent).

Role Strain and the Amount of Time Spent in Roles. The finding that the relationship between role strain and the amount of time spent in roles did not demonstrate significance was surprising. The fact that the percentage of time spent in roles showed a significant relationship to the number of roles occupied would have led one to believe that this relationship would also be significant. This finding may be related to the measurement technique used. Respondents were asked to estimate the percentage of time devoted to each role in their repertoire during a typical week. These values were summed to arrive at an overall measure of time commitment to roles during the week. Responses for this question demonstrated a high degree of variability, ranging from 30% to 490%. Some respondents described their role as a parent occupying 100% of their time, while others described this role as occupying less than 100% of time. The same finding was noted for the role of spouse. One would have assumed that respondents would have uniformly identified these two roles in particular as occupying 100% of their time. In reality, one does not have a finite period of time in which they are in the role of parent or spouse. Rather, one is always in that role, although the behavioral expectations of those roles at times, may be minimal. The clarity of the instruction for this section of the survey could have been improved, with the amount of time in roles being defined in more concrete terms.

An alternative explanation for this finding is possible. Respondents may have become accustomed to occupying some of their roles simultaneously. Their time obligations associated with their individual complement of roles would then be a function of which roles were occupied simultaneously. If this is the case, then the total amount of time spent in roles would not necessarily produce role strain.

Role Strain and Perceived Performance in Roles. The finding that role strain was inversely related to the overall perceived performance in roles was not surprising. An individual constantly

evaluates their performance in role against the standards they have set for themselves. If their actual performance in a role is less than their desired performance, one would assume this would produce dissatisfaction. This dissatisfaction could lead to an increase in the time and behavioral commitments obligated to that role. This increase could produce stress or strain as the individual attempts to juggle their multiple role obligations to meet the increased demands of one role. This stress or strain would manifest itself as an increase in the overall level of role strain.

Individuals may have varying degrees of expectations for their performance in the role complement. If there are low expectations for performance, the obligations of the role could be met with minimal time and effort. This would probably not produce role stress or role strain. In contrast, however, if an individual sets very high expectations for their role performance, they may experience stress or strain when these expectations are not met. This stress or strain occurs despite the fact that their level of performance may be satisfactory for that particular role. This research did not measure performance expectations for each role of an individual's role repertoire.

An individual's support systems may also be a factor which affects the perceived performance in roles. Role obligations may be able to be shifted to another individual within the support system. This shifting would lessen the stress associated with the expectations of a particular role. As one respondent wrote:

After four long years, I completed my BSN in December 1995. During those four years, the demand and stress were definitely affecting me mentally, physically, and detracted from my family and social life. I survived however (with a GPA of 4.0 and class valedictorian) because of my low stress job, supportive husband, and two of my coworkers were also in school with me.

Another respondent related:

...As a parent, I feel I perform fairly well but find it a challenge to care for a 2 and 4 year old even while working part-time. I find I am frequently tired but always have things that need to be done. All in all, we have a great family life and I have a very helpful husband which really makes working so hard worth it.

While the availability of a support system can be assumed to lessen the magnitude of role strain, this may not always be the case. One respondent, a married mother of two who reported a high degree of role strain stated:

I think hospitals should be more sensitive to the needs of working mothers. On site day care for the off-shifts should be considered. Also, more educational opportunities for off-shifts as it's harder for moms with young children to attend classes, etc. on their days off.

Similarly, another respondent expressed:

[I] would like to have more time with my children to be involved in their lives and activity at school. Also would like to have daycare at work to alleviate daycare problems, especially on weekends and evening and night shifts.

These comments add another dimension to the study of roles and role strain. Both of the above respondents reported being married mothers. It is interesting to note that descriptions of their experiences in multiple roles depict frustrations in juggling the roles of parent and worker. Both respondents describe their role obligations as a parent influential in producing role strain. One cannot make unsupported assumptions regarding the support systems available to these individuals. Their comments, however, would indicate that their role as mothers produces some stress. It is possible that, through their socialization process, they have been taught certain behavioral expectations for this role. These expectations are independent of any support system(s) available to them. Their inability to meet these behavioral expectations may be

producing role strain.

Gender Specific Differences in Role Strain and Job Satisfaction. While these findings are tentative, possible explanations are offered. The female subset of this population demonstrated a significant, inverse relationship between role strain and job satisfaction. The male subset, while showing a larger effect size ($-.50$), did not demonstrate statistical significance. Historically, the societal expectations for the roles of females included wife and mother. Societal expectations for the male role were dominated by the role of worker. In the past, it was not an uncommon occurrence for employed women to leave the workforce completely to assume the role obligations associated with parenting. In more recent years, however, an increase in the number of dual income couples with children has been noted. This trend would indicate a change in the movement of females in and out of the workforce for child rearing. This adds an additional role, that of worker/income provider, to the role of women. This additional role may be producing some internal role conflict for women. In their formative years, most women have been socialized to assume the role of wife and parent in adult life. In adulthood however, they have assumed another primary role, that of wage earner. This additional role conflicts with the roles for which they were socialized.

Societal role expectations for men, however, have not changed as dramatically. Men have been socialized to assume the primary roles of wage earner/provider and spouse. When the role of parent is added to their role repertoire, the behavioral obligations with this role are not as pronounced as those of their partners. It is a rare occurrence to see reports of men taking extended time away from their role as worker to provide child rearing. Rather, most male partners continue to work, while their female partner spends time at home with the newborn child. This finding, that women's role repertoires have expanded, while men's have stayed relatively

constant, provides a tentative explanation for these findings.

The finding that gender specific differences on measures of role strain and job dissatisfaction did not exist may also be explained by the progressive changes which have occurred related to gender and work. Historically, females held lower status, lower paying jobs, while their male counterparts occupied jobs of higher status and pay. This segregation may have been partially responsible for the historical premise that women reported lower overall job satisfaction than their male counterparts. In recent years, however, this disparity has been decreasing. Women are entering the traditionally male dominated professional roles (e.g. physician, attorney, accountant) and men are entering the traditionally dominated female roles (e.g. nurse). This change, coupled with legislation prohibiting discriminatory wage practices on the basis of gender, may explain the relative equivalence of job satisfaction across gender.

Additional Analysis of Survey Data

A number of significant findings from the analysis of survey data not related to the hypotheses warrant discussion. The positive correlation between job satisfaction and age is interesting. While the total variance shared by these two variables is small (5.76%), the relationship was significant. This finding might be explained by the cliché 'little things don't bother me anymore.' As age increases, respondents may have become less sensitive to situations which would produce conflict, in this case job dissatisfaction. Through time, they may have developed coping mechanisms which may mitigate some of the negative aspects of these situations.

The finding that gender and the number of years in nursing as a profession were significantly related provides some support to the recent changes in the composition of the nursing workforce. Historically, nursing was a female dominated profession. It is only recently

that males are entering the profession in increasing numbers. This finding serves to validate that trend.

The findings related to the examination of the dominant role profiles adds some additional support to the finding that the number of roles produces strain. Comparisons of role strain for the spouse-parent-worker (3 roles) and spouse-parent-worker-friend (4 roles) profiles did not demonstrate significant differences of role strain. Yet, when these two profiles were compared to the spouse-worker-parent-friend-organization member profile (5 roles), significant role strain differences existed. The mean role strain difference between 3 roles and 4 roles was 3.58, while the difference between 4 and 5 roles was 5.67. This would appear to indicate that addition of roles to the repertoire compounds overall role strain. Role strain produced in one profile is compounded when an additional role is added to the profile. As another role is added, the overall level of role strain increases. The finding that the increase in role strain is not constant may mean that the characteristics of the role, in terms of time and behavioral obligations, are the instrumental factors in producing strain. Alternatively, there may be an attribute of role strain that is a constant in all roles. The addition of a role which produces strain may cause an increase only to a level which exceeds this constant value. The limited research into role strain makes this explanation purely speculative, but a phenomenon worthy of further inquiry.

Integration of Findings with Past Literature

This section of the discussion integrates the findings from this study with those of the extant literature. Findings are integrated in terms of their convergence, contradiction, or clarity with previous findings. This discussion is organized under the main headings as identified in the review of literature.

Role Strain. Role strain was a primary variable under investigation in this study. As noted previously, competing conceptualizations of role strain are present in the literature. Merton (1957) proposed that role strain occurs when diverse expectations between the statuses of the role set lead to conflict. Goode (1966) proposed a scarcity hypothesis which stated differing roles compete for the time and energy of an individual. When time and energy are not sufficient to meet these obligations, role strain occurs. Marks (1977) proposed that role strain is not a function of lack of time and energy per se, but rather a function of commitment to the role. He proposed that individual's are able to generate time and energy to roles to which they are committed.

The findings from this study are consistent with the theses of Goode (1966) and Merton (1957). In this study, the number of roles an individual occupied demonstrated a significant relationship to role strain. In the examination of different role combinations, it was noted that the addition of a single role to an individual's role repertoire did not produce a significant increase in role strain. When another role was added, however, the increase in role strain became significant. These findings, along with the comments received from the survey participants, support the scarcity hypothesis as proposed by Goode. Marks' (1977) hypothesis that commitment to roles, rather than an absolute number of roles, has an effect on role strain was not empirically tested in this investigation. However, the percentage of time involved in some of the roles may be viewed in light of Marks' theoretical position. The spouse and parent roles were identified as occupying 100% of time by a number of individuals. These roles, once enacted, are not readily amenable to alterations in the flow of energy to the role based on commitment. There are certain behavioral expectations associated with these roles which are always present. One would expect then, that the commitment to these roles would be high. In contrast, other roles (e.g. worker, student,

friend) could have a potentially varied degree of commitment associated with them. In this regard, a balanced level of commitment across roles as Marks' proposes, may not be easily attained. Societal expectations place certain behavioral norms on the role of parent (as an example) once enacted. The commitment to this role is not easily altered without placing the role incumbent's behavior in conflict with societal expectations.

The finding that role strain was inversely related to job satisfaction offers support to the conceptualization of role strain as described by Ward (1986). Ward identified antecedents of role strain as situations which made the fulfillment of role demands difficult. As role strain was related to the number of roles occupied in this study, this finding supports Ward's identification of role accumulation as an antecedent of role strain. Ward also described attributes of role strain as negative and undesirable states, of which job dissatisfaction was one. The significant inverse relationship between role strain and job satisfaction in this study lends support to this conceptualization. While empirical testing of the mediating factors of role strain was not carried out, comments from survey participants adds some support to this assumption. Respondents described a supportive spouse, low stress jobs, and support from coworkers as mediators of role strain.

The conceptualization and measurement of role strain in this study took a more global approach and did not limit investigation to any specific combination of role strain antecedents. This contrasts with prior research which used antecedents of role strain, specifically role ambiguity and role conflict, almost exclusively (Acorn, 1991; Bacharach, Bamberger, & Conley, 1991; Batlis, 1980; Bedian & Armenakis, 1981; Pilkington & Wood, 1986). The finding that the role strain, in this study, and its antecedents in prior studies, demonstrated a significant relationship to satisfaction measures is encouraging. Additional work will need to be completed

to determine whether role strain is best assessed through global measurement or through construct specific measurement.

The significant relationship between role strain and job satisfaction provides empirical support for the premise that extra-work correlates of job satisfaction exist. This finding is consistent with the work of Near, Rice, and Hunt (1978) in which extra-work variables were related to job satisfaction when occupation as a covariate is controlled for.

Job Satisfaction. The finding that role strain and overall job satisfaction were related adds some breadth to the prior investigations of job satisfaction in nursing. As noted previously, job satisfaction measures in nursing have been largely limited to job dimension specific scales which tapped work related constructs (e.g., autonomy, relationships, work itself, and work environment). The findings of this study must question the completeness of work specific measures of job satisfaction. The findings of this study and that of Near, Rice, and Hunt (1978) support the need for a more comprehensive approach to the measure of job satisfaction in registered nurses. Measures of job satisfaction need to include those extra-work variables which have demonstrated significant relationships to satisfaction with work. This approach would also be consistent with the qualitative work of Seymour and Buscherhof (1991) which identified extra-work correlates of gender role issues and family issues as factors contributing to dissatisfaction with work in the registered nurse population.

The use of a scale which measured job satisfaction from a more global perspective additionally adds some depth to the prior research on nursing job satisfaction. The intent in this study was to assess job satisfaction as an overall integrated response not limited to specific dimensions of the job. Based on the finding that role strain demonstrated a significant, inverse relationship to job satisfaction coupled with the identification of job satisfaction as a negative

attribute of role strain (Ward, 1986), additional exploration in this area is warranted. Further research will be needed to determine if role strain has similar relationships to job satisfaction when dimension specific scales are utilized.

Role Strain and Job Satisfaction . The significant relationship between role strain and job satisfaction is consistent with the findings of other researchers (Miles, 1975; Batlis, 1980; Stout & Posner, 1984). This consistency, however must be viewed in light of the fact that previous research has consistently used role conflict and role ambiguity as primary constructs in research. While these constructs have been identified as antecedents of role strain (Ward, 1986), they do not represent the full spectrum of causal factors in the production of role strain. The current study, in contrast, used a more conceptual view of role strain and did not limit the measurement of this construct to specific dimensions such as role conflict or role ambiguity. Rather, role strain was defined as a subjective response of tension or frustration which occurs when role demands conflict. Further research will be needed to identify which conceptualization of role strain is most appropriate for measurement of this complex construct.

More specific to nursing, the significant relationship between role strain and job satisfaction adds some indirect support to the meta-analyses of the nursing job satisfaction literature (Blégen, 1993; Irvine & Evans, 1995). Both analyses identified a common finding in that job satisfaction in registered nurses was strongly associated with stress. Hardy and Conway (1988) described role strain as a response to role stress. A relationship between these variables can be offered. Competing role demands produce role stress, manifesting itself as role strain. This strain has a negative effect on job satisfaction. The findings of this study would appear to provide some support for this relationship. This is consistent with the work of Stout and Posner (1984) which identified a relationship between high stress levels, high role ambiguity, and low job

satisfaction in service workers.

Two of the individual items of the role strain scale appear to tap the construct of work-home spillover. The finding that these two items had significant, individual correlations with global job satisfaction adds some clarity to previous research. Bacharach, Bamberger, and Conley's (1991) work found that work-home conflict had a significant effect on job burnout, but an insignificant direct effect on job satisfaction. This research, while not measuring job burnout specifically, identified a significant relationship between role strain and job satisfaction. In the 1991 work, burnout may not have been the most appropriate intermediate variable to measure in the relationship between work-home conflict and job satisfaction. If burnout represents a state of emotional exhaustion, it is conceptually difficult to comprehend work-home conflict as an antecedent. Rather, one would reason that work-home conflict would cause stress. This stress would contribute to a state of emotional exhaustion. Using this reasoning, a more comprehensive model would have placed variables in the order of work-home conflict, stress, burnout, job satisfaction.

Limitations

While the results of this research provided significant findings in the relationship between role strain and job satisfaction in registered nurses, the limitations of this study warrant discussion.

The usable response rate of 31.1% represents a significant limitation of this study. Demographic information from non-respondents is not available to identify any significant differences which may exist between those who responded and those who did not. Similarly, demographic information for the population of registered nurses in the United States, and more specifically for the State of Florida, was not located. Thus, meaningful comparisons as to how this study's sample compares to the population of registered nurses could not be completed. This

limits the generalizability of these results to the registered nurse population as a whole.

The small sample size used in the examination of gender differences in the relationship between role strain and job satisfaction limits the significance of these results. The power calculation of .19 for the male subset makes the likelihood of committing a Type II error substantial.

The variance shared by role strain and job satisfaction's relationship in this study is low (5.76%). This would indicate that there are variables in addition to role strain which are related to job satisfaction in the registered nurse population. There may be additional extra-work correlates of job satisfaction in this population. The identification of these variables was not pursued in this research. Future studies should explore this dimension. Additionally, the cross sectional design of this research does not permit inferences to be made as to the causal relationship between role strain and job satisfaction.

Measurement issues are also a limitation of this study. The role strain and job satisfaction scales used in this research were developed specifically for this study. While the internal consistency of these scales is within the acceptable range of greater than .80, comprehensive validity assessments have not been completed. Both scales attempted to measure their respective constructs from a global perspective. Further reliability and validity studies will need to be completed to determine if these scales represent complete measures of their respective construct.

Practical Implications and Suggestions for Future Research

This study identified a significant relationship between role strain and job satisfaction in the registered nurse population. Prior studies investigating the relationship between these phenomena in registered nurses have been limited. The scant research investigating the relationship between these constructs has used dimension specific scales. This research, in

contrast, measured these constructs from a more global perspective. The findings from this study will be useful to nursing administrators who seek to reduce the costs associated with turnover of registered nurses in their organizations. Administrators should begin to look outside the confines of the organizational structure as they consider initiatives to enhance job satisfaction and decrease turnover of registered nurses. They must become more sensitive and understanding to the fact that the role of worker does not exist in isolation from other roles. It is from this understanding that comprehensive programs to decrease turnover and increase job satisfaction will emerge.

The findings from this study also suggest a number of directions for future research related to role strain and job satisfaction. The finding that these two constructs are related in the registered nurse population warrants this same type of investigation in other occupational groups, as well as the population as a whole.

Role strain was found to be an extra-work correlate of job satisfaction in this study. While this finding is promising, the search for other extra-work correlates of job satisfaction in registered nurses should be undertaken. Identification of these correlates will lead to a more comprehensive understanding of the complex construct of job satisfaction in the nursing population.

The scales used in this study have not undergone extensive reliability and validity testing. Therefore, future research into role strain and job satisfaction should assess these areas. The role strain scale produced promising results in the pilot study and this research. Future investigations should continue to assess the reliability and validity of this scale as a measure of role strain. It should be compared with existing reliable, valid scales which assess consequences of role strain. These consequences include anxiety, physiological symptomatology, and burnout. Additional investigation should also assess the comprehensiveness of the items in the scale as a measure of

role strain.

The global job satisfaction scale used in this study should be compared with existing reliable, valid scales which measure job satisfaction from a dimension specific approach. It would be useful to assess the equivalency of these scales in measuring the complex construct of job satisfaction in the registered nurse population.

Future research into the relationship between role strain and job satisfaction in the registered nurse population should approach investigation using different research designs. While a true experimental design with strict controls is not feasible, a experimental and control group design could be established. In this design, subjects in the experimental group could be exposed to interventions aimed at decreasing their role strain with measures of job satisfaction for each group representing the dependent variable. A longitudinal design to study the relationship between role strain and job satisfaction would also be warranted. With these designs, causal relationships between role strain and job satisfaction could be explored.

Future investigations into role strain should not be limited to quantitative inquiry. Role strain represents a complex construct of role theory which has received little attention from a qualitative perspective. This method of inquiry may be instrumental in identifying and refining the underlying dimensions of this complex construct.

Lastly, future research should continue to examine specific role combinations and the gender differences associated with role strain and job satisfaction. The historical research in this area is scant and the changing cultural values related to role combinations and gender differences in society provides a rich field for inquiry.

In summary, this research has provided a fuller understanding of the extra-work correlate of role strain's relationship to job satisfaction in registered nurses. It has also identified a number

of variables which contribute to increased role strain in this population. These findings will be useful to nursing administrators as they initiate programs to counteract the costly effects of job dissatisfaction and turnover in the registered nurse population.

It will important to continue research into the relationship between role strain and job satisfaction. These efforts will be paramount in gaining a fuller understanding of these complex constructs. It is only through these continued investigative efforts that refinements and improvements in theory, research, and practice will emerge.

Appendices

Appendix A

May 8, 1996

Dear Colleague:

At some point in your nursing career, you have probably completed a job satisfaction survey. This survey was given to you to gather some information about what you felt caused satisfaction or dissatisfaction with your work. The survey items were probably descriptive of various aspects of your work or your work environment.

Have you ever wondered though, if factors outside the work setting may be contributing to your overall satisfaction with work? Do the demands associated with other aspects of your life have a relationship to your satisfaction with your work? This relationship has not been researched to much extent in registered nurses.

I am a graduate student in the nursing administration program at the University of Tampa. My thesis involves research into those factors outside the work setting which may influence your overall satisfaction with your job. This topic is important in that it may affect programs implemented in the work setting which contribute to job satisfaction.

You are one of 315 individuals being asked to complete the enclosed survey. Your name was randomly selected from a list of all registered nurses with an active nursing license residing in the state of Florida. The survey is brief and can be completed in a short time. Please take the time to complete the survey and return it to me. A pre-addressed, postage paid return envelope is enclosed. Your return of the completed survey to me will indicate your consent to voluntarily participate in this research.

Your answers are completely confidential. The listing of the names and addresses of those selected to receive this survey was destroyed at the time the surveys were mailed. No identifying marks are included in the survey. Please do not enter any information onto the survey which could be used to identify you.

Please return the survey to me before May 22, 1996. I would be happy to answer any questions you might have. My telephone number is (813) 238-0115. I thank you in advance for your assistance.

Sincerely,

Lee Schmidt
Master's Candidate
University of Tampa - Department of Nursing

Please answer all questions. I cannot use surveys that are missing any data.

Listed below are some statements which refer to aspects of your daily life. Please indicate your level of agreement with each statement by circling the appropriate number.

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
1. I am pursuing multiple goals simultaneously.	1	2	3	4	5
2. I have little free time for myself.	1	2	3	4	5
3. I do not feel stressed because of the demands placed on me for my time.	1	2	3	4	5
4. Pressures from my private life do not carry over into my work.	1	2	3	4	5
5. My work has disadvantages for my family and social life.	1	2	3	4	5
6. The demands placed on my time and energy are not excessive.	1	2	3	4	5
7. Multiple sources are competing for my time and energy.	1	2	3	4	5
8. My job and free time activities are not interfering with each other.	1	2	3	4	5
9. I would like to be more involved with activities at work but other demands in my life prohibit me from doing so.	1	2	3	4	5
10. My total obligations to myself and others are not overly demanding.	1	2	3	4	5

The next four questions ask about your overall satisfaction with your work. Please indicate your level of agreement with each statement by circling the appropriate number.

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
1. All in all, I am highly satisfied with my current job.	1	2	3	4	5
2. I am not very satisfied with my current job when I compare it to the same job in other organizations.	1	2	3	4	5
3. All things considered, my present job provides me with a great deal of satisfaction.	1	2	3	4	5
4. In my present job, my day-to-day work provides little satisfaction.	1	2	3	4	5

Please turn the page for additional questions.

Many of us occupy different roles. Listed below are some of the more commonly occurring roles which you may occupy. Please indicate those roles which you occupy by placing a "X" in the space next to that role. Also, please estimate the percentage (%) of time spent in each of those roles during a typical week. Limit your percentage response to a single value (e.g. 30%). The values need *not* add up to 100%. Blank spaces have been provided for you to identify additional roles which may not be included in this list.

	Role	Percentage of time in role
_____	Spouse	_____ %
_____	Worker	_____ %
_____	Student	_____ %
_____	Worker at second job	_____ %
_____	Parent	_____ %
_____	Provider for adult relative	_____ %
_____	Provider for adult, not a relative	_____ %
_____	Volunteer	_____ %
_____	Significant other, not married	_____ %
_____	Friend	_____ %
_____	Organization member	_____ %
_____	_____	_____ %
_____	_____	_____ %
_____	_____	_____ %
_____	_____	_____ %

Please turn the page for additional questions.

The next section asks for a description of your satisfaction with your performance in each role you occupy. Please indicate the level of satisfaction by circling the appropriate number.

	Not Satisfied	Somewhat Satisfied	Highly Satisfied
Spouse	1	2	3
Worker	1	2	3
Student	1	2	3
Worker at second job	1	2	3
Parent	1	2	3
Provider for adult relative	1	2	3
Provider for adult, not a relative	1	2	3
Volunteer	1	2	3
Significant other, not married	1	2	3
Friend	1	2	3
Organization member	1	2	3
_____	1	2	3
_____	1	2	3
_____	1	2	3
_____	1	2	3

The space below is provided for any comments you may have related to your experiences in occupying multiple roles. This section is optional.

Please turn the page to complete the survey.

This final section asks you to provide some information about yourself.

1. Sex: ☐ Female ☐ Male
2. Marital Status: ☐ Single, never married ☐ Married
☐ Divorced ☐ Separated
3. Number of Children Living in Your Household who are:
☐ less than 12 years of age
☐ between 12 and 18 years of age
☐ greater than 18 years of age
4. Age: ☐ less than 20 ☐ 40-49
☐ 20-29 ☐ 50-59
☐ 30-39 ☐ 60 or greater
5. Basic Nursing Education: ☐ Diploma
☐ Associate degree
☐ Bachelor's degree
6. Highest Degree Held: ☐ No degree
☐ Associate
☐ Bachelor's
☐ Master's
☐ Doctorate
7. Number of Years in Nursing: ☐ less than 1 ☐ 11-15
☐ 1-5 ☐ 15-20
☐ 6-10 ☐ greater than 20
8. Number of Years in Current Position: ☐ less than 1 ☐ 11-15
☐ 1-5 ☐ 15-20
☐ 6-10 ☐ greater than 20
9. Number of Hours Worked per Week: ☐ less than 16 ☐ 33-40
☐ 16-23 ☐ greater than 40
☐ 24-32
10. Type of Nursing Position You Hold: ☐ Staff Nurse
☐ Management
☐ Clinician/Clinical Specialist
☐ Researcher
☐ Not employed in nursing
☐ Other (specify) _____
11. Your Employment Setting: ☐ Hospital
☐ Outpatient facility
☐ Business
☐ Not employed
☐ Other (specify) _____

Thank you for your assistance!

Appendix B

Descriptors of Type of Position Held in "Other" Category

Position	Count	Cumulative		Cumulative	
		Count	Percent	Percent	
Charge Nurse	1	1	5.26	5.26	
Clinical Educator	1	2	5.26	10.53	
Corporate Home Health Quality	1	3	5.26	15.79	
Disability Manager	1	4	5.26	21.05	
Educator	1	5	5.26	26.32	
Health Occupations Instructor	1	6	5.26	31.58	
Home Health Nurse	2	8	10.53	42.11	
Hospice	2	10	10.53	52.63	
Insurance Company	1	11	5.26	57.89	
Legal Nurse Consultant	1	12	5.26	63.16	
Mobile Outreach	1	13	5.26	68.42	
Office Nurse	2	15	10.53	78.95	
Public Health	1	16	5.26	84.21	
Staff Development	1	17	5.26	89.47	
Telephone Utilization Review/ Crisis Intervention	1	18	5.26	94.74	
Volunteer	1	19	5.26	100.0	

Appendix C

Descriptors of Type of Employment Setting in "Other" Category

Position	Count	Cumulative		Cumulative
		Count	Percent	Percent
Community	1	1	2.86	2.86
Community College	1	2	2.86	5.71
Correctional Institution	1	3	2.86	8.57
Family Practice	1	4	2.86	11.43
HMO	1	5	2.86	14.29
Health Department	1	6	2.86	17.14
Home Care	1	7	2.86	20.00
Home Care/Hospice	1	8	2.86	22.86
Home Health	7	15	20.00	42.86
Home Health Management	1	16	2.86	45.71
Homeless Outreach Unit	1	17	2.86	48.57
Hospice	3	20	8.57	57.14
Hospice/Home Care	1	21	2.86	60.00
Insurance Industry	1	22	2.86	62.86
Long Term Care	1	23	2.86	65.71
Mentally Handicapped Facility	1	24	2.86	68.71
Nursing Home	1	25	2.86	71.43
Office	1	26	2.86	74.29
Patient's Home/Office	1	27	2.86	77.14
Prison	1	28	2.86	80.00
Patient Home/Hospice	1	29	2.86	82.86
Public Health Unit	1	30	2.86	85.71
School/Hospital Training	1	31	2.86	88.57
Senior Center	1	32	2.86	91.43
Travel Agency	1	33	2.86	94.29
University	1	34	2.86	97.14
University Health Center	1	35	2.86	100.00

Appendix D

Intercorrelations Between Role Strain Scale Items and Job Satisfaction

Scale Item	1	2	3	4	5	6	7	8	9	10	Job Sat
1. Pursuing multiple goals	----										
2. Little free time for self	.30*	----									
3. Feel stress because of demands for my time ¹	.05	.46**	----								
4. Pressure from private life carry over to work ¹	-.05	.27**	.40**	----							
5. Work has disadvantages for family and social life	.05	.35**	.10	.23*	----						
6. Demands placed on my time and energy are excessive ¹	.14	.51**	.52**	.50**	.36**	----					
7. Multiple sources compete for my time and energy	.27**	.39**	.39**	.27**	.33**	.55**	----				
8. Job and free time activities interfere with each other ¹	.18	.31**	.25*	.41**	.46*	.43**	.32**	----			
9. Would like to be more involved at work but other demands prohibit	.19	.16	.11	.22*	.24*	.11	.24*	.37**	----		
10. Total obligations to self and others are overly demanding ¹	.28	.37**	.52**	.39**	.23*	.64**	.52**	.51**	.31**	----	
Job Satisfaction	.15	-.16	-.22*	-.24*	-.15	-.24*	-.08	-.27**	-.04	-.25*	----

* $p < .05$ ** $p < .01$

¹Reverse scored on scale

Appendix E

Gender Differences on Role Strain and Job Satisfaction Scale Items

Scale Item	Item Mean		$t^{1,2}$
	Females	Males	
I am pursuing multiple goals simultaneously.	3.51	3.85	-0.807
I have little free time for myself.	3.55	2.71	1.835
I feel stressed because of the demands placed on me for my time.	3.72	3.28	1.026
Pressures from my private life carry over into my work.	2.82	2.71	0.250
My work has disadvantages for my family and social life.	3.52	3.42	0.832
The demands placed on my time and energy are excessive.	3.25	3.00	0.591
Multiple sources are competing for my time and energy.	3.67	4.00	-0.908
My job and free time activities are interfering with each other.	3.14	3.00	0.337
I would like to be more involved with activities at work but other demands in my life prohibit me from doing so.	2.90	2.42	1.012
My total obligations to myself and others are overly demanding.	3.18	3.00	0.425
All in all, I am highly satisfied with my current job.	3.46	4.00	-1.33
I am very satisfied with my current job when I compare it to the same job in other organizations	3.57	3.57	0.017
All things considered, my present job provides me with a great deal of satisfaction	3.66	4.14	-1.31
In my present job, my day-to-day work provides great satisfaction.	3.68	3.85	-0.45

¹two tailed t-test²none of the results significant at $p < .05$

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