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Relationships Between and Among the Power of Self-Care Agency, Perceived Structural Empowerment and Psychological Empowerment in Nurse Managers in Acute Care Hospitals with Magnet Designation

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RELATIONSHIPS BETWEEN AND AMONG THE POWER
OF SELF CARE AGENCY, PERCEIVED STRUCTURAL
EMPOWERMENT AND PSYCHOLOGICAL EMPOWERMENT
IN NURSE MANAGERS IN ACUTE CARE HOSPITALS
WITH MAGNET DESIGNATION

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	Date	3/4/14

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Seton Hall University
2014

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ABSTRACT

Background: In today's dramatically changing healthcare environment, the nurse manager's role in an acute care hospital is critical to meet the increasing patient care demands and the goals of the organization. The literature provides consensus that optimal nurse manager role behaviors are essential to facilitate a successful unit based organizational structure that can sustain workplace success. These behaviors can be theoretically described as the result of a nurse manager's ability as self-care agent to activate his or her power of self-care agency in order to engage in optimal role behaviors that will ultimately ensure that the goals of the organization are met (Orem, 1995). Little effort has been made to examine the innate self-care abilities of current nurse managers who must fulfill important managerial role behaviors. In addition, examination of relationships between nurse manager role behaviors and empowered workplace environments such as an organization with Magnet designation is very limited in nursing or healthcare literature.

Purpose: The purpose of this study was to examine the relationships between and among the power of self-care agency, perceived structural empowerment and psychological empowerment in nurse managers in acute care hospitals with Magnet designation.

Methods: This descriptive correlational study examined the relationships between and among self-care agency, perceived structural empowerment and psychological empowerment in nurse managers who work in an acute care hospital with Magnet

designation. Ninety-seven volunteers nurse managers responded to four measurement tools including the Exercise of Self-Care Agency scale, the Conditions of Work Effectiveness-II tool, the Psychological Empowerment Instrument and a Demographic Information form.

Results: The Spearman rank correlation between self-care agency and perceived structural empowerment showed a moderate, positive correlation. The Spearman rank correlation between self-care agency and psychological empowerment showed a positive, but weak correlation. While there was a small, positive Spearman rank correlation between perceived structural empowerment and psychological empowerment, the result of a multiple regression to examine the relationship between self-care agency and the interaction between structural empowerment and psychological empowerment was not significant.

Conclusions: Findings support correlational relationships between self-care agency and structural empowerment and between structural empowerment and psychological empowerment. The findings provide some evidence that in an environment with structural support which optimizes nurse manager's self-care agency, these relationships may potentially play an important role in alleviating the impending shortage of nurse managers by increasing the likelihood of retaining current nurse managers. Implementing and maintaining strategies that will enhance and strengthen positive structural environmental resources in current acute care hospital systems may increase retention current managers and by extension, attract the most capable and

motivated nurse managers from among the ranks of bedside nurses who aspire to fill nurse manager positions in the future. The relationship between self-care agency and psychological empowerment was very weak and may be a spurious relationship.

Chapter I

INTRODUCTION

Healthcare workplace conditions that reflect a lack of collaborative support from nursing management are a recurring theme underlying dissatisfaction in the staff nurse workforce. Specific workplace conditions that include bureaucratic structures, inflexible work schedules, lack of opportunity for staff nurse involvement in decision making and increased patient workload, all lead to considerable stress for all nurses (Albaugh, 2003; Leveck & Jones, 1996). These common workplace conditions cause many nurses to become cynical and distrustful of management. Such stressful situations can threaten both the health and well-being of nurses and the nursing profession itself.

In order for organizational leaders to address the challenging workplace conditions articulated by nurses, the role behaviors of nurse managers in the workplace must be understood. The literature supports that when nurse managers exhibit successful leadership behaviors, they strongly influence the staff nurse work environment and impact care at the bedside (Anthony et al., 2005), but there is no clarity about how to identify the components of such successful role behaviors. Thus, there is a need to identify and better understand successful nurse manager role behaviors and use such newly gained insights to create innovative strategies in order to improve the work environment of staff nurses now and in the future.

Initially, in order to address workplace challenges, healthcare organizations examined various nursing care delivery models to improve the work environment. Creation of environmental conditions that support employee engagement is an important mandate for healthcare organizations and particularly for nurse leaders in administrative management positions (Institute of Medicine, 2004). As early as 1982, The American Academy of Nursing (AAN) analyzed data submitted by acute care hospitals which showed that when hospitals actively supported the practice of professional nursing, they more easily recruited and retained highly qualified nurses in staff positions when compared with hospitals which did not provide such support. The hospitals that had reported active support of professional nursing practice and overtime, additional acute care organizations that reported similar practice support qualifications became known as Magnet hospitals (McClure, Poulin, Sovie & Wandelt, 1983). Magnet hospitals were then characterized as having work environmental conditions that fostered increased levels of nurse empowerment and autonomy, and nursing staff control over their professional practice, as well as collaborative practice models with physicians (Kramer & Schmalenberg, 2008). Later, in the early 1990s, the American Nurses Credentialing Center (ANCC) Magnet Recognition Program was developed by the American Nurses Association (ANA) to establish standardized evaluation criteria by which hospital resources could be measured through a survey process for recognizing Magnet hospitals (ANA, 1995). After twenty five years, attainment of Magnet hospital designation

continues to be an important and highly prized acute care hospital accreditation by the ANCC in the United States.

Employee empowerment, one theme in the ANCC Magnet standards, is one approach to creating supportive environmental conditions. Empowerment, widely acknowledged in the management literature, (Kanter, 1977; McFarland, Senn & Childress, 1994; Kirkman & Rosen, 1999; Doherty & Hope, 2000) provides the basis for new organizational structures designed to eliminate traditional hierarchical models which use command and control management styles. Research has shown that the combination of employee empowerment and engagement is an important predictor of satisfaction, work effectiveness and intent to remain in an organization (Leiter & Maslach, 2004).

Over the last two decades, the concept of empowerment and the sub-concepts of structural empowerment and psychological empowerment have made a significant impact on practice and leadership in nursing within an environment based on shared governance. In a shared governance environment, decision making related to nursing practice is transferred from the administrative level to the staff nurse level. Thus, the overall structure of the organization is reconfigured around staff nurse empowerment and enhanced professional accountability. When a foundation of shared governance guides the work environment, ownership and accountability by the practicing staff nurse is increased in direct proportion to the degree of staff nurse empowerment (Porter-O'Grady, 2001; Scott & Caress, 2005). Porter-O'Grady

(2001) further posits that nurse managers are known to be the core guiding influence of staff nurse empowerment.

The literature suggests that empowerment has a positive impact on the nursing workforce (Laschinger & Finegan, 2005). Shared governance models support a collective responsibility-based structure, which increases morale, job satisfaction, motivation and ownership of practice, and provides a sense of worth for nurses (Parsons, 1999; Laschinger, Finegan, & Shamian, 2001; McNulty, 2004).

Researchers have begun to explore both the role of unit-based nursing leadership in a culture of empowerment as defined in shared governance models and the skill sets needed by the nurse manager in order to positively influence staff nurse empowerment in the work environment (Anthony et al., 2005; Moore & Hutchinson, 2007). McFarland et al. (1994) explained that in a shared governance model the nurse manager's role must support the elements of autonomy, skill building in participative shared management, communication and team building in order to support a work environment that will succeed. There is, however, limited research that examines the role of the nurse manager in an empowered workplace. A clear, evidence-based understanding of the foundational elements of this role is essential to ensure that the goals of the organization are met.

The literature supports the critical role that nurse managers play in today's dramatically changing healthcare environments which are characterized by increased patient acuity and a shortage of a professional nursing workforce to meet

increased patient care demands (Laschinger et al., 2007). However, a shortage of managers for the future is also looming as nurses, currently in these roles, approach retirement age and fewer younger, experienced nurses seek out nurse management positions (Rudan, 2002). Results from a Canadian study found the average age of a nurse manager was 48 years in 2006 (Laschinger et al., 2007), which further highlights the need to attract and deliberately prepare for the next generation of nurse managers. The researchers projected that by 2020, the number of the then current leaders leaving the workforce would increase to 75% (Laschinger et al., 2007). There is to-date, no published data or discussions regarding the current age of nurse managers in the United States or the need for aggressive recruitment. With no further data and based on these projections, it is critical to ensure that work environments be conducive to retaining current managers and to attracting new nurse managers.

In the current healthcare environment, nurse managers often work in an organizational climate of uncertainty. Such an environment engenders considerable stress for the nurse manager due to the increased and escalating job-related demands that are often coupled with limited administrative support (Lindholm, Rastam, & Uden, 1999). The ongoing stressful nature of the nurse manager's role in today's restructured work settings can endanger the nurse manager's physical and emotional health, and undermine job-related role behaviors (Laschinger et al., 2007). There appears to be a consensus that optimal managerial

role behaviors are essential to facilitate a successful unit-based organizational structure that can sustain workplace success in an ongoing process of empowerment (Kanter, 1993). Little attention has been paid to the examination of the underlying prerequisite abilities of individuals who seek, or are invited to fill nurse manager positions. Theoretically, there is a relationship between performance of role-related behaviors and the ability of the individual to fully engage in optimal role behaviors (Orem, 1985).

Orem, (1985) describes this relationship within the self-care deficit theory of nursing as “the practice of activities individuals initiate and perform on their own behalf in maintaining life, health and well-being” (1985, p.84). The power or enabling ability a person must possess in order to engage in self-care behavior is inherent in all mature individuals and is defined as *self-care agency* which Orem proposes is conditioned by gender and age (1980, 1985). One must consider that when the nurse manager’s (NM) self-care ability is less than optimal, energy and ongoing motivation at work are diminished. This diminished motivation and energy can lead to negative consequences related to productive outcomes of NM role behaviors and, by extension, can have negative consequences for the larger organization (Orem, 1995). While the literature does explain some important aspects of the empowered work model and the pivotal role of the nurse manager (Anthony et al., 2005), there is little literature to explain the relationship between a workplace that supports empowerment and the prerequisite ability of the NM to

initiate and perform ongoing job-related behaviors in such an environment. There is a need to examine whether the innate self-care agency of the NM is related to optimal NM role behaviors within an organization with an empowered structural environment.

Purpose of the Study

The purpose of this study was to examine the relationships between and among self-care agency, perceived structural empowerment and psychological empowerment of nurse managers in acute care hospitals with a Magnet designation.

Definition of Variables

Self-care agency (S-CA) is defined as the enabling power or ability of a mature adult to engage in the estimative and productive operations of self-care which are performed as self-care actions to “maintain life, health and well-being” (Orem, 1985, p. 84). Power of self-care agency is dependent on whether the individual possesses the foundational and enabling cognitive, psychomotor and emotional capabilities that are prerequisites for the ability to perform self-care (Orem, 1980).

S-CA was operationalized in this study by a score on the Exercise of Self Care Agency (ESCA) scale (Kearney & Fleischer, 1979).

Structural Empowerment is defined as the environmental support system, purposefully made available by the hospital organization and is theoretically

intended to enable the nurse manager to optimally perform his or her work-related behaviors. Structural empowerment includes provision for and access to information, specific job-related resources and opportunities to use informal and formal power (Laschinger & Havens, 1996). Nurse Manager's use of environmental support systems depends upon his or her perception of available organizational resources. Evidence of a structurally empowering environment is a key required domain in the American Nurses Credentialing Center (ANCC) Recognition for Nursing Excellence standards (ANCC, 2010) for acute care hospital magnet certification. The list of all Magnet Certified Hospitals is available on the ANCC website:

<http://www.nursecredentialing.org/FindaMagnetHospital.aspx>).

Perceived structural empowerment was operationalized in this study as measured by a score on The Conditions of Work Effectiveness Questionnaire-II (CWEQ-II), (Laschinger, et al., 2001).

Psychological Empowerment is defined as a personal, positive psychological state of being experienced by a nurse manager (NM) who engages in successful and empowering role behaviors. It is often an outcome of enhanced managerial abilities that have been enabled by the structural support system of the organization. PE has four components: meaning, work competence, autonomy and impact. Meaning is defined as congruence between job requirements and a NM's beliefs, values and behaviors; work competence as self-assurance in one's own job performance

abilities; autonomy as having a sense of control over one's workload; and impact as one's sense of being able to influence important outcomes within the organization (Sprietzer,1995).

PE was operationalized in this study by the total score on the Psychological Empowerment Instrument (Sprietzer,1995).

Nurse Manager (NM) is defined as a registered nurse employed as a nurse manager and whose job description requires twenty four hour, 7 days a week accountability and full responsibility for unit/department(s) operations in an acute care hospital

NM was operationalized in this study as a self-report item on the demographic data form.

Delimitations

Because some acute care hospitals have unique nurse manager (NM) role responsibilities and in order to ensure that expectations of NM role responsibilities are consistent with the most widely held job description regardless of job title, in this study, only registered nurses employed in NM positions that include twenty four hour, 7 days a week unit/department accountability and responsibility were included. Because self-care agency is established in mature adults (Orem, 1985), only NMs who were 25 years of age or older were included.

Because at least 12 months are needed to acclimate to a new environment and work role and to develop role related job skills and rapport with the staff in order to

be effective in a new work role (Stevens, 1985), only NMs with a minimum of 12 months employment as a nurse manager on the same unit were included.

The ANCC certifies an acute care hospital as a Magnet facility when it demonstrates evidence that it provides nurses with resources to do their job, including information regarding organizational goals, access to all levels of support and opportunities to learn and grow in their nursing career that were consistent with the concept of institutional empowerment. Because this was a study of nurse manager's ability to engage in structurally empowering resources provided by the acute care hospital, only acute care hospitals that have been designated and currently maintained as Magnet facilities were included.

Theoretical Rationale

The conceptual framework used in this study involves consideration of three theories: Orem's (1995) self-care deficit theory of nursing which provides the overall foundation for the study, Kanter's theory of power (*structural empowerment*), (1977, 1993), and Spreitzer's model of psychological empowerment (*psychological empowerment*), (1995). These three theories were used to explain the proposed relationships between and among nurse manager's S-CA, perceived structural empowerment and psychological empowerment.

Orem (1995) describes S-CA as "the complex acquired capability to meet one's continuing requirements for care of self that regulates life processes, maintains or promotes integrity of human structure, functioning, human development and

promotes well-being” (p.212). Orem (1995) describes self-care as human endeavors and learned behaviors that are deliberate, purposeful actions in which individuals engage, to influence internal and external factors that regulate personal functioning and development. Just as Orem’s model proposes that power for optimal ability and functioning of S-CA is important to the individual, in a parallel manner, Orem (1995) also proposes that power of nursing service is important to the optimal ability and function of the healthcare organization. From this perspective, it is the organization that provides opportunities for continuing self-care behaviors among nurses, which in turn enhances the productive operations of the organization. Laschinger, Finegan and Shamian (2001) state that nursing organizations provide this support at the nurse manager level by providing support systems that enable the nurse manager’s professional growth. In addition, financial and other resources are made available to support the nurse manager’s work-related activities, as well as to provide tangible support for the nurse manager’s ongoing use of formal and informal power.

Based on Laschinger, Purdy & Almost’s (2007) research, when healthcare organizations value nurse managers, they demonstrate that value by structuring nurse manager empowerment supports. Therefore, it can be conjectured that in the presence of empowerment supports, the nurse manager, depending on his or her individual power of S-CA, will feel psychologically empowered, which in turn, renews ongoing motivation for growth and sustained leadership behaviors.

Orem (1985) explains that the focus and actions of nurse managers (NM), as part of nursing administration are different from those of staff nurses who provide direct patient care. Essential requisites of the nurse manager are discussed here. Theoretically, the self-care agent, as NM, is enabled by the power or ability of S-CA to engage in estimative and productive operations that produce self-care behaviors as the essential requisite of the NM role. The responsibilities and requisites of NM's include having: 1) knowledge of nursing as a science-based discipline incorporated into practice; 2) a commitment to the purpose and mission of the institution in which he or she is employed; 3) an understanding of how nursing contributes to the fulfillment of the organization's mission; and 4) the ability to manage his or her designated areas of responsibility. Taken together, these four essential requisites of the NM, when optimally operational, ensure the continued provision of nursing care to the populations served by the organization (Orem, 1985).

Orem (1985) further ascribes to the NM, two managerial tasks with associated work functions. The first managerial task is to create and manage all unit-based staff to ensure the appropriate professional and technical skill mix and the second task is that the nurse manager must make decisions and take actions which are consistent with goal setting and goal achievement for the organization. In the first task, the NM effectively allocates material resources so unit or department staff can continue to function appropriately and fulfill their positional role responsibilities in a supportive work environment. Operations associated with the unit-based work

functions of the NM's first task include: a) goal setting related to the needs of the population being served and the needs of overall organization, b) analyzing and organizing work to achieve the goals, c) establishing standards for hiring nurses, d) motivating and communicating with staff, and e) producing designs for measuring performance outcomes of nursing care provided.

The second managerial task is related to ensuring that the NM's decisions and actions incorporate, and are in harmony with, future goal requirements of the organization. Operations associated with the work functions of the NM's second task are to: a) establish standards and criteria for selecting people for operational and leadership positions such as unit coordinator, or charge nurse; b) identify costs of ongoing operations and access capital resources to finance them; c) identify new operational methods to improve staff performance on the unit/department; and d) develop self and others within the designated boundaries of the unit-based managerial domain of the NM which may include single, or multiple nursing units.

Theoretically, the structural empowerment model places responsibility for causes of worker behaviors fully on the organization. Through the lens of Kanter's empowerment model (1977, 1993), employee work behavior is assumed to arise from conditions and situations in the workplace, and not from personal attributes, or workplace socialization (Laschinger & Havens, 1996). The theory of structural empowerment states that opportunity and power in organizations are essential, and must be made available to all employees for maximal effectiveness and ongoing

optimal success of the organization. Through an organizational mind-set of structural empowerment, power and opportunity are operationalized. Therefore, in such an organization, effective use of available opportunities for power is defined as the NM's ability to get things done, to mobilize available resources and have access to appropriate structural and emotional supports needed to meet the goals he or she is attempting to accomplish (Kanter, 1993).

A second aspect of Kanter's model (1977, 1993) assumes builds on the assumption that work power arises from structural conditions in the work setting. By extension, structural conditions provided in the acute care hospital organization with shared governance will determine employee power (Laschinger & Havens, 1996). From Kanter's (1993) perspective, NM behaviors are merely a response to the structural conditions encountered in the workplace for which the manager is responsible. Based on this logic, the nature of the job within its environmental context evokes behaviors from the NM that determine the likelihood of work effectiveness (Kanter, 1993).

Of particular importance for growth of worker empowerment are the specific structural conditions that must exist in the organization such as having access to information, receiving support, having access to resources necessary to do the job, and having the opportunity to learn and grow. When these conditions are structured in such a way that employees feel empowered, the organization is likely to benefit in terms of organizational effectiveness. Research findings indicate that when

employees had access to information, resources, support and opportunities, job strain decreased, feelings of autonomy increased and higher levels of employee self-efficacy became evident (Laschinger, Finegan, Shamian, & Wilk, 2004). Evidence of increased autonomy and self-efficacy in the presence of Kanter's structural conditions provide a theoretical link to additional empowerment components, which Sprietzer (1996) labels as psychological empowerment.

Psychological empowerment is defined by Sprietzer (1996) as a positive psychological state of being that an employee experiences through successful development of meaning, competence, autonomy and impact. A NM, through the power of S-CA, utilizes structural empowerment conditions made available in a healthcare organizational environment of shared governance, which theoretically facilitates psychological empowerment as a logical outcome. Sprietzer (1996) found that managers' access to strategic information within the organization and to information about quality outcomes and cost performance of the work unit, were significantly related to their perceived psychological empowerment. This is consistent with the notion that psychological empowerment is a consequence of being engaged in structural conditions that encourage empowerment (Laschinger, et al., 2001). Sprietzer (1996) further suggests that psychological empowerment may be a mediating variable between structural empowerment and manager job satisfaction.

The theoretical framework proposed in this study posits that Orem's conceptualization of S-CA, as the enabling power of the NM to engage in the estimative and productive operations of self-care, is central to understanding the nurse's role behaviors as a nurse manager. Theoretically, the NM's power of S-CA is demonstrated as estimative and productive operations which are prerequisites to optimal NM performance of Orem's two managerial tasks associated with managerial work functions. Purposeful and continuous performance of managerial tasks and work functions are influenced by the NM's ability to engage in his or her perception of the elements of structural support, which in turn enables the level and quality of psychological empowerment experienced.

In this study, the relationships between and among power of S-CA, perceived structural empowerment and psychological empowerment in the NM were examined.

Hypotheses

H₁ There is a positive relationship between S-CA and perceived structural empowerment in nurse managers in an acute care hospital with Magnet designation.

H₂ There is a positive relationship between S-CA and psychological empowerment in nurse managers in an acute care hospital with Magnet designation.

H₃ There is a positive relationship between perceived structural empowerment and psychological empowerment in nurse managers in an acute care hospital with Magnet designation.

Research Question

Is there a positive relationship between S-CA and the interaction of perceived structural empowerment and psychological empowerment in nurse managers in an acute care hospital with Magnet designation?

Significance of the Study

The NM role in the U.S. health care system has undergone considerable changes in the last 20 years and continues to evolve (Kleinman, 2003). NM responsibilities are diverse and include tasks such as developing an operational plan to specify new patient placement on the patient care unit according to patient care needs, monitoring patient quality outcomes, managing staff-related issues, as well as controlling unit budget and use of operational resources. Some authors contend that healthcare leadership positions, including those of the NM, are among the most difficult jobs in the industry today, and are growing even more difficult and complex as healthcare continues to rapidly evolve (Shirey, 2004).

Compounding this generally negative label is the report that both staff nurses and nurse managers perceive the NM's role as overwhelmingly stressful (Rudan, 2002). If nurses continue to link the perception of overwhelming stress with the role of the NM, it is questionable whether qualified and capable nurses will step forward to apply for, or if solicited, accept NM positions in the near or distant future. Understanding the relationships between S-CA, work environment and the impact of

concepts and strategies to proactively mediate inherent job stressors is crucial to effective nurse manager leadership (Shirey, 2004).

Relationships between support for the NM and maintenance of a healthy work environment, have been examined and established empirically from the perspective of the organization (Kramer & Schmalenberg, 2008; Parsons, Cornett & Golightly-Jenkins, 2006), but only limited research has been done to examine specific innate NM traits in order to decreased recidivism from the perspective of choosing appropriate candidates for NM positions. Reports have shown that NMs state many reasons for leaving their jobs. The increasingly stressful nature of the role is frequently at the top of the list (Olofsson, et al., 2003). In spite of intensive organizational efforts to provide a shared governance work environment, which theoretically should improve job satisfaction in hospital-based nurses, there is little evidence to explain why NMs continue to abandon their NM positions even though NM job satisfaction scores have largely improved (Anthony et al., 2005). Research has not examined ways to better understand the innate ability of the NM candidate to maintain optimal NM role behaviors, prior to being offered the position.

The purpose of this study was threefold: to examine whether use of a theoretical explanation of power as S-CA can provide the basis for understanding which nurses are more likely to succeed in maintaining optimal NM role behaviors; to test Orem's self-care agency theory and the concept of S-CA; and to provide identification of S-CA as a possible predictor variable which influences role

behaviors of the NM in an empowered work environment in an acute care Magnet hospital.

Chapter II

REVIEW OF LITERATURE

The following review of the literature provides an overview of Orem's theory of self-care agency. Self-care agency is presented as a nurse manager's enabling capability to govern his or her related achievements, including attainment and use of the specific skills and knowledge needed to perform the unique role behaviors required of a nurse manager. The extent to which the nurse manager knowingly engages in self-care agency, which may be influenced by environmental factors such as the resources related to structural empowerment and psychological empowerment will also be discussed.

Self-Care Deficit Theory of Nursing

The self-care deficit theory of nursing provides the theoretical foundation for this study. This theory is "a descriptive explanation of the relationship between the action capabilities of individuals and their demands for self-care" (Orem, 1985, p. 38). Self-care is the key concept and foundation of the self-care deficit theory of nursing. Self-care is defined as an individual's capabilities to continuously and voluntarily perform the daily practice of deliberate actions on one's own behalf to maintain life, health, and well-being (Orem, 1985). The term deficit is defined in the theoretical context as the relationship between the capabilities of the individual and the actions needed to meet the requirements of self-care (Orem 1985).

Orem's self-care deficit theory of nursing (1985) incorporates three separate, articulating sub-theories: (a) the theory of self-care, which explains the need for particular caring capabilities necessary to maintain life and health; (b) the theory of self-care deficits which specifies health derived, or healthcare related self-care limitations; and (c) the theory of nursing systems which establishes the structure and the content of nursing (Orem, 1995). The focus of this study is the sub-theory of self-care.

A key concept in self-care theory is self-care requisites. According to Orem (1995), "persons engaging in self-care have the requisite self-care action capabilities [known as one's agency or power] to act deliberately to regulate internal and external factors that affect their own functioning" (p. 103). There are three types of self-care requisites including: (1) universal self-care requisites which are associated with living functions, continuation of a focus on health, and reliability of bodily human construct and task; (2) developmental self-care requisites associated with conditions and events in the human developmental process; and (3) health deviation self-care requisites associated with illness and injury. Being able to effectively meet the universal, developmental and health deviation requisites promotes productive life processes and overall healthy well-being, regulates conditions and events of life cycle processes and attends to requirements of injury and illness respectively (Orem, 1985).

Self-Care Agency. The source of self-care is the self-care agent, while the ability or power of the self-care agent to execute self-care is self-care agency (S-CA). Self-care agency is the innate capability that enables persons to meet their own continued care demands (Orem, 1985). It “is understanding a complex property or attribute of individuals that enables one to determine requirements for and to take effective action to meet the known, particularized regulatory requisites of individuals” (Orem, 1985, p.76).

Essential capabilities of S-CA include acquiring knowledge and skill and maintaining ongoing motivation in order to assist in cognitive reflective judgment and decision making about one’s own readiness to produce activities of self-care. Orem posits that there are two phases of self-care operations, estimative and productive, that must precede production of self-care. Activities described as estimative operations, must occur in Phase I of self-care (Orem, 1995) and direct all internal investigational processes including having prior knowledge of one’s self and knowledge of related environmental conditions. Before being able to confirm appropriate self-care actions, one must gain knowledge of the courses of actions available and be able to judge the potential effectiveness and desirability of such actions. Effective producers of self-care end Phase I with transitional operations that signal when decisions have been made related to specific self-care actions to be taken or avoided (Orem, 1995).

Phase II, the productive operations phase, includes execution of all regulatory processes related to the actions required to bring about change, or maintain the desired state which was established in Phase I. In essence, the course chosen to meet the goals set in Phase I will determine the type of action to be taken in Phase II (Orem, 1995). The Phase II action is directed by the self-care agent, through the power of S-CA, to accomplish the desired goals by utilizing predetermined techniques, or adjusting planned actions to meet desired goals. The focus of Phase II is to achieve the desired result and maintain the goal-directed action over time (Orem, 1995).

According to Orem (1980), there are ten human power components which must exist prior to engaging in self-care operations. These power components include the self-care agent's ability to: (1) maintain attention and vigilance; (2) control the use of available physical energy; (3) control the position of the body and its parts in execution of movements; (4) reason within a self-care frame of reference; (5) be motivated, and goal oriented toward self-care; (6) be able to make and operationalize decisions about self-care; (7) acquire, retain and operationalize knowledge about self-care; (8) use cognitive, perceptual and communication skills for self-care; (9) order discrete self-care actions and systems; and (10) consistently perform and integrate self-care operations into other aspects of living (Orem,1979).

The power components articulate with self-care operations either singly, or in some combination in a feedback mechanism. Persons who produce effective self-

care through S-CA must have individual knowledge of themselves and knowledge of their environmental conditions (Orem 1985). In addition, prior to determining appropriate self-care operations, the self-care agent must gain knowledge of available information and assess his or her own motivation and the potential effectiveness of possible options planned as self-care actions (Orem 1985). Orem (1985) posits that self-care is impacted by age, maturity, life experiences and knowledge.

Based on Orem's S-CA requirements, one can propose that in the environmental conditions of a work situation, a nurse manager, through power of S-CA, engages in work-related estimative and productive operations to produce desired nurse manager role behaviors. Prior to determining appropriate work-related self-care operations, the nurse manager in the estimative phase must gain knowledge of available resources in the work setting and plan to use these resources in actions that will optimize productive operations in order to be successful in the nurse manager role.

Orem designates four focused actions required of the self-care agent as nurse manager which parallel the ten power components of S-CA. Such focused actions reflect the desired goals for optimal nurse manager role behaviors and include: (1) a belief that nursing is a unique field of knowledge and practice, (2) a commitment to the purpose and mission of the institution of which he or she is an organic part, 3) an understanding of how nursing contributes to the fulfillment of the

organization's mission, and 4) the ability to manage the domain designated as areas of responsibility. Taken together, these four essential requisites of the nurse manager, when optimally operationalized, ensure the continued provision of nursing care to the populations served by the organization (Orem, 1985).

Through the lens of self-care theory, it can be proposed that the nurse manager, as self-care agent, operationalizes his or her power of S-CA to engage in the estimative and productive operations of self-care in the performance of the nurse manager role. S-CA power components can be viewed as prerequisite enabling capabilities for self-care. In theory, it can be postulated that when the nurse manager, as self-care agent can optimally activate appropriate power components in Phase I estimative and transitional operations, the nurse manager will demonstrate effective Phase II productive operations in the work environment which are evidenced as effective nurse manager role behaviors. Conversely, if the nurse manager as self-care agent is unable to optimally activate appropriate power components in Phase I estimative and transitional operations, Phase II productive operations in the work environment cannot occur and this inability is evidenced as ineffective nurse manager role behaviors. As an example, when a nurse manager lacks sufficient knowledge of budget management for her unit or is unable to activate his or her existing knowledge for developing a budget or fails to identify specific areas of knowledge weakness, the NM cannot actively participate in planning the required departmental budget effectively. Another example might be

when a NM is unable to objectively evaluate staff performance because feelings of personal loyalty for a staff member override the NM's commitment and ability to manage her or his unit-based domain of responsibility.

The Exercise of Self Care Agency scale (ESCA) was developed by Kearney and Fleischer (1979) to objectively measure the power, or exercise of self-care agency. They initiated the development of the ESCA scale in a graduate level research class where four students and the instructor, all of whom were familiar with the concept of self-care in nursing, clarified the ESCA construct and identified its five indicants as a) "attitude of responsibility for self," b) "motivation for self-care," c) the "application of knowledge of self-care," d) "valuing of health priorities," and e) "high self-esteem" (p.33).

Collectively, students listed a total of 83 items related to the five indicants. Students then independently rated each item for appropriateness to exercise of self-care agency as either a positive or negative factor on a scale of 1 to 3, with 1 for *good*, 2 for *fair* or 3 for *poor*. All students ranked 45 of the 83 items as good and 21 as either good or fair for a total of 66 items scored as 1 or 2. Of the 66 items, 22 were considered to be repetitious and deleted. Students then collectively refined the remaining list of 44 items which were either positively or negatively rated as appropriately related to the five "indicants of the person's exercise of self-care agency" (Kearney & Fleisher, 1979, p.27).

Content validity of the initial ESCA instrument was established by five self-care concept theory experts who independently rated each of the 44 items on its worth as an indicator of the exercise of self-care agency, on a three level scale of good, fair, or poor. Twenty-nine of the 44 items which were rated as good with 80% inter-rater reliability were left unchanged and retained in the final ESCA scale. The remaining 15 items had a 60% inter-rater reliability of good or fair and no items were rated poor. After rewording one item and eliminating another, the 14 items were added to the 29 items already retained, thus, the final number of items in the original ESCA scale was 43 (Kearney & Fleischer, 1979).

The final instrument, a 43 item ESCA scale is scored on a 5 point Likert-like scale where responses range from 4, for *very characteristic* “of me” (p. 31), to 0 for *very uncharacteristic* “of me” (p. 31), (Kearney & Fleischer, 1979). The eleven items which are negatively worded are reverse coded. The range of possible scores for the ESCA scale is from 0 (lowest) to 172 (highest) for the ability to exercise self-care agency.

In order to test for concurrent, criterion-related validity of the ESCA scale, Kearney and Fleischer (1979) tested the relationships of two known, reliable and valid measures of theoretically related concepts to items on the ESCA scale. The Adjective Check List (ACL; Gough & Heilbrun, 1965) a 24 item instrument was selected because it measured several self-descriptors which were theoretically, either positively or negatively related to the ESCA scale items. Among positive

factors were descriptors such as achievement, internal and goal centered motives, and “intrapersonal as a measure of knowledge, ability and conscientiousness, assertiveness and outgoing” (Gough & Heilbrun, 1965, p. 51). Negative descriptors related to the ESCA scale items included feeling weak, undeserving, anxious, high strung and restless. The second theoretically comparative measure used was the Internal-External Locus of Control scale (I-E scale; Rotter, 1966) which was selected because internal locus of control is theoretically positively (e.g., striving, achieving, powerful, independent) related to self-care agency indicants.

Normative data for the ESCA scale were obtained on three volunteer groups of nursing and non-nursing college students. The method for testing the 3 groups of nursing students included one group completing the test-retest of the ESCA scale and another group completing a single administration of the ACL and I-E scale at the T₁, and another group completing the ESCA scale testing to examine various hypotheses regarding reliability and validity. Of the 79 nursing students who took the T₁ ESCA scale, only 76 took the T₂ retest and an additional 8 nursing students took the ESCA scale at T₂ only ($n = 84$). Students in the non-nursing psychology courses ($n = 153$) took only the ESCA scale and the I-E scale in a single testing event independent of any nursing student test events. The test-retest reliability was $r = .77$, for the 76 nursing students; split half reliabilities were $r = .80$ and $r = .81$

respectively, for the first ($n = 79$) and second ($n = 84$) testing of the nursing students, and $r = .77$ for the psychology students ($n = 153$).

Hypotheses proposing significant positive correlations between the exercise of self-care agency and selected items on the ACL scale that were tested and supported in the nursing students included self-confidence ($r = .23, p < .05$), achievement ($r = .32, p < .05$), and intraception ($r = .26, p < .05$). The proposed negative correlation between ESCA scale and the ACL scale item, abasement ($r = -.35, p < .01$) was also supported (Kearney & Fleisher, 1979). Although not hypothesized, five favorable adjectives on the ACL scale were positively correlated with exercise of self-care agency including defensiveness and endurance ($p < .01$), self control, dominance and nurturance ($p < .05$) and two unfavorable adjectives were negatively correlated including succorance/helpfulness ($p < .01$) and aggression ($p < .05$). The hypothesized positive relationship between internal locus of control (I-E scale; Rotter, 1966) and exercise of self-care agency (ESCA scale) was not supported, indicating that whether one is internally or externally motivated has no impact on level of exercise of self-care agency (Kearney & Fleischer, 1979).

In summary, findings of this study support the reliability and validity of the ECSA scale as a measure of self-care agency. Persons who exemplify traits such as dependability, assertiveness, knowledgability, and ability to adapt were able to exercise self-care agency to a high degree. Traits not found in persons able to

exercise a high degree of self-care agency are being competitive, dependent and aggressive. Based on these series of studies, the ESCA scale is reported to be a reliable and valid measure of exercise of self-care agency which can be used to identify key attributes in individuals who exercise self-care agency behaviors.

Since 1979, this tool has been utilized by nurse researchers to assess ability to exercise self-care agency in a variety of populations including community dwelling unmarried teenage primiparas (Mapanga & Andres, 1995) and community-based public health nurses (Behm & Frank, 1992). The ESCA scale continues to be used to measure self-care agency in various healthy and ill adult populations and has been shown to be reliable and valid.

The extent to which the individual as nurse manager knowingly activates S-CA is influenced by environment factors (Orem, 1985). The opportunities for structural and psychological empowerment, inherent in an organization that embraces a culture of empowerment, can be theoretically designated as environmental factors that may influence a nurse manager's role behaviors.

Empowerment

Empowerment in the workplace has been studied from many perspectives. Broadly, empowerment refers to either structural empowerment which focuses on shared power as a structural foundation of an organization and its decision making processes (Laschinger & Havens, 1996), or psychological empowerment which focuses largely on the self-efficacy of an individual (Sprietzer, 1995). The

deliberate practice of empowering employees is often the principal strategy of an organization when planning strategies to improve management and organizational effectiveness. Productivity, as a measure of organizational effectiveness, is known to increase when administrative power and control are shared with subordinates through planned use of empowerment strategies demonstrated to be crucial elements in staff development and maintenance (Conger & Kanungo, 1988; Koberg, Boss, Senjem & Goodman, 1999). Employee empowerment has also been demonstrated when studying nurses. Laschinger and Havens (1996) found that staff nurses who rated their nurse manager as being high in sharing organizational power with subordinates, also rate themselves as having a high level of job-related power and control ($r = 0.77$); no p -value was stated.

Structural Empowerment. Kanter's (1977, 1993) theory of structural power in organizations provides an appropriate framework to examine factors in hospital work environments that influence the response of nurses to their work experiences. Kanter (1993) defined empowerment as the ability of an individual to independently make decisions and utilize available resources to achieve expected goals. The theory of structural power was based on research findings of earlier studies of work environments in large American business corporations (Hackman & Oldham, 1976; Herzberg, 1966). According to Kanter (1993), power in organizations is derived from structural conditions and not from personal characteristics, or effects of socialization. Kanter posits that if an organization is

specifically structured to empower its workers through work conditions, the structure will have a positive impact on employee work effectiveness and thus enhance the organization's overall work effectiveness. Conversely, if the organizational structure does not provide for empowerment through its work conditions, the structure will have a negative impact on the employees and diminish their work satisfaction, which is then reflected in the overall diminution of organization work satisfaction and effectiveness. Kanter argues that, while personal and social characteristics do not directly contribute to power, the impact of the organization's social structures on employee behavior is far greater than the impact of an employee's unique personality characteristics. Organizational social structural lines that must be present to confer power include opportunity, information, support systems and resources. While these social structures are formed by human interactions, they are integral to the organizational structure. In addition, these four social structures are embedded in all work environments and are the source of the organization's level of power for success (Kanter, 1993).

A strong empowerment structure in an organization leads to increased autonomy, job satisfaction and commitment among employees, with a related decrease in burnout and job stress and an overall enhanced work environment (Laschinger, Wong, McMahon, & Kaufman, 1999). In the nursing literature, healthcare research exploring the influence of structural empowerment in the workplace on nurses' perceptions of job satisfaction and motivation (Kuokkanen,

Suominen, Harkman, Rankinen, Kukkurainen, Savikko & Doran, 2007; Pearson et al., 2006) has expanded to include work engagement (Laschinger & Finegan, 2005; Tigert & Laschinger, 2004), organizational commitment (Laschinger, Finegan & Shamian, 2001) and work effectiveness (Laschinger & Havens, 1996). Employee's work behaviors and attitudes are responsive to the individual's job position and work situation and not merely manifestations of inherent personality traits (Kanter, 1977). Kanter explains that power is obtained from the opportunity to access power-generating social situations and the ability to mobilize support, and attain information, resources and opportunities through one's role in the organization. While access to elements of empowerment structures depends upon, and is influenced by the degree of employee power in the organization, Kanter states that this power is derived from both formal and informal sources (1977).

Formal power can be derived from a person's job description which provides formal positional power in the organization and is ordinarily inherent and expected in jobs that are visible. Formal power is central to the purpose of the organization and allows employee discretion in job-related decision making. Informal power is derived from the network of relationships and alliances workers form with supervisors, peers and subordinates within the organization. These alliances enable powerful individuals to gain the cooperation they require in order to get things done. Kanter (1977) maintains that individuals with a high degree of formal or

informal power have access to the structural lines of opportunity, information, resources, and support available in the organization.

According to the theory of structural power (Kanter, 1993), work environments that provide access to information, resources and support, as well as the opportunity to learn and develop are empowering and enable employees to accomplish their work. Empowered employees are actively supported by management to act in accordance with their expertise and judgment to ensure that high quality outcomes are achievable. When situations are structured in such a way that employees feel empowered, the organization is likely to benefit, both in terms of the favorable attitudes of employees toward work and the organization's overall work effectiveness (Kanter, 1993). Laschinger, Finegan and Shamian (2001) found, in a correlational study of 400 randomly selected Canadian staff nurses that the degree of worker access to structural lines of opportunity, information, resources, and support that work attitude and behaviors are influenced and evidenced as effective work behaviors. Additional findings of this study, using multiples regression, indicated that empowerment had both a direct and indirect effect on autonomy and work satisfaction. Higher levels of empowerment were related to increased satisfaction ($\beta = .46$) as a direct effect. Also, empowerment influenced job satisfaction indirectly through trust in management at a standardized alpha coefficient of .15. The amount of the explained variance in the final model was 40%. Overall, in this study, having access to informational resources, support

and opportunities for growth also resulted in increased nurses' feelings of autonomy and increased levels of self-efficacy (Laschinger, Finegan & Shamian, 2001).

Tigert and Laschinger (2004) performed a secondary analysis of data from a larger descriptive correlational survey design study to examine relationships between and among perceptions of workplace empowerment, magnet hospital traits and mental health in 75 critical care nurses. Results indicated that perceived structural empowerment and perceived magnet hospital traits were linked with a positive work environment, levels of nurse autonomy, control over nursing practice and critical care nurses' mental health. Nineteen percent of the variance in emotional exhaustion in critical care nurses was explained by empowerment and perceptions of magnet hospital traits ($R^2 = .19, p = .001$). Findings also showed that perceived structural empowerment was significantly and positively related to perceptions of magnet hospital traits ($r = .49, p = 0.001$). In addition, the combination of empowerment and magnet hospital traits explained a significant amount of the variance in two mental health indicators: burn-out (19%) and state of mind (12%). In general, nurse managers who intentionally incorporated these four power inducing structures which include opportunity, resources, information and support, into the staff nurse workplace environment were generally more likely to create nursing autonomy where staff nurses felt in control of their nursing practice

and in-turn had improved work satisfaction than NM who did not incorporate the four power conditions into the workplace environment.

Based on a hypothesized model, the Conditions of Work Effectiveness-II (CWEQ-II) was developed by Laschinger, Finegan, Shamian & Wilk, (2004) to test Kanter's (1993) theory of structural empowerment in the nursing population. The CWEQ-II is a 19 item, self-administered, paper and pencil, self-report that measures nurses' perceived structural empowerment using six subscales based on Kanter's theory of empowerment (1993). The first four subscales have 3 items each that measure nurses' perceptions of access to 1) opportunity, 2) information, 3) support, and 4) resources respectfully. The fifth subscale has 3 items that were distilled from the nine item Job Activity Scale (Laschinger, 1996) and measures a staff nurse's perception of Kanter's *formal power*. The sixth subscale has 4 items that were distilled from the 18 item Organizational Relationship Scale (ORG; Laschinger, 1996) and measures a staff nurse's perception of Kanter's *informal power* (Laschinger et al., 2001).

Responses for all items on each subscale, except for those on subscale 2, which measure knowledge as information, are rated on a 5 point Likert-like scale; responses range from 1 *for none* to 5 *for a lot*. Subscale 2 item response scores range from 1 *for no knowledge* to 5 *for knows a lot* (Laschinger, Finegan, Shamian & Wilk, 2004). An overall CWEQ-II score based on the total sum of the average of response scores for all 6 subscales provides the total structural empowerment score.

The range of possible CWEQ-II total scores is 6 for lowest and 30 for highest perceived structural empowerment. Laschinger and colleagues suggest that the range of possible scores for lower levels of empowerment is from 6 to 13, the range for moderate levels of empowerment is from 14 to 22, and the range for high levels of empowerment is from 23 to 30. The construct validity of the CWEQ-II was substantiated in a factor analysis for goodness of fit that confirmed the hypothesized factor structure ($X^2 = 279$, $df = 129$, CFI = .992, IFI = .992, RMSEA = .054).

The last two items, incorporated as a measure of global empowerment, are scored on a five point Likert-like scale; response scores range from 1 for *strongly disagree* to 5 for *strongly agree*. The total of the two global empowerment item scores are used only to test construct validity and these scores are not added to the total CWEQ-II score. CWEQ-II total scores correlated positively with the total scores on the global measure of empowerment items ($r = .56$), providing additional evidence of the questionnaire's construct validity (Laschinger, et al., 2001).

Laschinger, Purdy and Almost in 2007, reported the original Cronbach's alpha reliability for the tool when used in the 2001 study as ranging from .79 to .82. In other studies, the Cronbach's alpha reliability data for the CWEQ-II was reported at .83 for registered nurses (McPeak, 2004) and at .84 for staff nurses (Kluska, Laschinger & Kerr, 2004). In additional studies of nurses, Lachinger, Almost,

Purdy and Kim reported Cronbach's alpha at .89 in 2004; and Armstrong and Laschinger reported Cronbach's alpha at .94 in 2006.

Psychological empowerment. Psychological empowerment is a person's psychological response to an empowered work environment and is manifested across the four dimensions of meaning, competence, self-determination and impact (Sprietzer, 1995). Sprietzer defines *meaning* as the congruence between job requirements and employee beliefs, values and behaviors used when meeting the job requirements. *Competence* refers to being assured of one's own ability to perform the job. *Self-determination* is one's feelings of control over the activities self-selected for job performance. *Impact* is one's sense of being able to influence important outcomes within one's local work unit and the overall organization. These four dimensions, when integrated into job related behaviors, reflect an active orientation to one's work role.

Sprietzer (1995) further suggests that work-related psychological empowerment is not an enduring personality trait, but rather is formed and/or sustained by the characteristics of one's work environment. Within this conceptualization, it is the organization that must first provide the specific prerequisite elements of structural empowerment and only within the resulting supportive environment, can psychological empowerment become activated. For example, when employees with a supportive work environment are psychologically empowered, they demonstrate confidence in their ability to perform their job, to

have a positive effect on their work process and its outcome, and to positively impact important organizational outcomes. In contrast, employees who are without support in the work environment and who demonstrate low levels of psychological empowerment appear to have less capacity to cope with organizational stressors and are more likely to respond less effectively in their ability to perform their job and support organizational outcomes (Sprietzer, 1995). Sprietzer (1995) developed the theory-based Psychological Empowerment Instrument, to measure the four components of psychological empowerment including meaning as meaningful work, competence, self-determination as autonomy and impact.

The Psychological Empowerment Instrument (1995) was developed in two phases. In Phase I, a review of empowerment literature revealed 150 themes of empowerment which were independently Q-sorted into content themes by two independent raters. After Sprietzer integrated Q sort data, the original 2 raters found the integrated data to be reliable ($r = 0.72$). The integrated Q sort themes were further distilled and revealed four general themes of empowerment that mirrored themes already identified in the literature. These themes were validated in Phase II and comprise the existing four components measured in the final version of the scale.

In Phase II, construct validation continued and Psychological Empowerment Instrument items for the first of the four components were adapted from a selected model of the meaning component. Three existing reliable and valid single

dimension scales that individually were related to competency, or self-determination, or impact were adapted to measure the last three of the four components. Meaning component items were adapted from Tymon's model (1988), competency items from Jones's (1986) self-efficacy scale, self-determination items adapted from Hackman and Oldman's (1976) autonomy scale, and impact items were adapted from Ashforth's (1989) helplessness scale (Sprietzer, 1995).

The primary reliability and construct validity testing was done on a random sample of industrial organizational managers ($N = 393$). The data from this sample were used to examine the psychological empowerment properties derived from the four components and theoretically related antecedents (self-esteem, locus of control, information and rewards). Data collection occurred at randomly determined intervals over a 3 year company managerial development program. Cronbach's alpha for the sample was .72.

A second random sample ($N = 128$) of lower level insurance company employees, stratified by team membership and function within the team, was used to cross validate reliability and validity data from the Psychological Empowerment Instrument study done with the primary industrial organizational manager sample. In addition, the second study tested a newly added structural empowerment element. The Psychological Empowerment Instrument was administered twice during a five month period to the same sample of lower level insurance company employees.

The alpha reliability coefficient for the lower level insurance company employee sample was .62. Based on the alpha reliability coefficient of .72 in the first study and the alpha of .62 in the second study, Sprietzer reported ample and acceptable alpha reliability data to support use of a new Psychological Empowerment Instrument. Cohen (1988) supports that lower alpha reliability coefficients are acceptable for early use of newly constructed concept measures (Cohen, 1988). The test/retest reliability in the insurance company sample indicated stability of scores over time, thus “both internal and external consistency and test/retest reliability was established” (Sprietzer,1995, p 1446).

The Psychological Empowerment Instrument has an acceptable level of internal consistency and test-retest reliability on each subscale. Test-retest reliability for each subscale ranges from 0.73 to 0.85. Confirmatory factor analysis to assess validity of the components was completed. Each item on the Psychological Empowerment Instrument strongly loaded on the appropriate factor and although the factors were significantly correlated with each other, no factor was “equivalent to another” (p.1446) which further supports that psychological empowerment is manifested across the four dimensions of meaning, competence, self-determination and impact (Sprietzer,1995). In addition, “each dimension contributes to an overall construct” (Sprietzer, 1995, p.1446) and establishes convergent validity of the Psychological Empowerment Instrument. The Cronbach’s alpha reliability coefficient for the overall empowerment construct was

.72 for the industrial sample and .62 for the insurance sample, which is within an acceptable range of newly developed tools (Nunnally and Bernstein, 1978, p. 245).

The Psychological Empowerment Instrument is a 14 items, pencil and paper self-report that measure an individual's perception of psychological empowerment based on the four domains of meaning, competence, self-determination and impact. The item responses are rated on a 7 point Likert-like scale ranging from 1 for *very strongly disagree* to 7 for *very strongly agree*. The total score for the overall perception of psychological empowerment is calculated by summing component specific scores for each of the four domain components measured by the instrument. Psychological empowerment scores are interpreted as a continuum, with higher scores indicating a higher perception of psychological empowerment and lower scores indicating a lower perception of psychological empowerment (Spritzer, 1995). The total range of possible scores on the Psychological Empowerment instrument range is from a high of 98 to a low of 14.

This scale continues to be utilized in health care and non-health care environments as a reliable and valid measure of the individual experience of psychological empowerment in the workplace. For example, in one study, using Karesek's demands-control model, Laschinger, Finegan, Shamian, and Almost (2001) examined the effects of job strain on staff nurses' quality of work life. In a second study, Laschinger, Purdy, and Almost (2007) examined the impact of

leader-member exchange quality, empowerment and core self-evaluation on nurse managers' job satisfaction.

Structural and psychological empowerment. Kanter's theory of organizational empowerment has been used to evaluate the relationships between and among structural empowerment, psychological empowerment, job strain and work satisfaction in nurses (Laschinger, Finegan, Shamian & Wilk, 2004). The role of psychological empowerment as an outcome of structural empowerment with theoretical links among staff nurses' work empowerment, job strain and work satisfaction was strongly supported.

Six hundred Canadian nurses (300 male, 300 female) working in urban tertiary care hospitals were randomly selected from the Ontario College of Nurses registry list. A consent form and questionnaires to assess structural empowerment, psychological empowerment, work satisfaction and job strain were ground-mailed to the 600 potential subjects. A 72% overall return rate yielded a sample of the 432 volunteer subjects. Using structural equation modeling (SEM), the investigators tested a hypothesized model of proposed relationships between the variables of structural empowerment, psychological empowerment, work effectiveness and job strain in nurses. The Goodness of Fit analysis resulted in indices with strong support for the model ($\chi^2 = 1140$, $df = 545$, χ^2/df ratio = 2.09, CFI = 0.986, IFI + 0.986 (RMSEA) = 0.052), (low = 0 to .06: good fit). The amount of variance accounted for by the model was 58%. As predicted, structural empowerment had a

direct positive effect on psychological empowerment ($\beta = 0.85$) which in turn, had a direct positive effect on job satisfaction ($\beta = 0.79$) and a direct negative effect on job strain ($\beta = - 0.57$) (Laschinger et al., 2001). The significance level of the study findings was not reported.

The nurse manager plays a critical role in today's dramatically changing healthcare environments which are characterized by increasing patient acuity and shortages in the staff nurse workforce that is needed to meet the increasing patient care demands (Rudan, 2002). However, the literature reveals that to date; only one comprehensive study (Laschinger, Purdy and Almost, 2007) has been conducted to examine factors that affect the work environment of nurse managers in today's healthcare settings. This is surprising since there is a crucial need to identify factors to promote healthy work environments for managers in order to increase job satisfaction and improve retention.

In 2007, using a correlational design, Laschinger, Purdy and Almost investigated the relationships between and among core self-evaluation, leader-member exchange, structural empowerment, psychological empowerment and job satisfaction in 141 nurse middle managers (*leader* = 40) and frontline managers (*member* = 101) working in Canadian acute care hospitals whose contact information was obtained from a Canadian Provincial registry. Empowerment theory (Kanter 1977, 1993) and leader-member exchange (LMX) theory (Graen & Uhi-Bein, 1995) provided the theoretical perspective for the hypothesized

relationship between the nurse manager's evaluation of self-worth, measured by the Core Self Evaluation (CSE) scale, (Judge, Erez, Bono & Thoresen, 2003) and perceived LMX, measured by the LMX scale (Laschinger, Purdy & Almost, 2007). A high CSE score is consistent with high self-worth. Higher LMX scores indicate a positive LMX. LMX theory dictates that whether employees respond positively or negatively to their work environment depends on the nature and quality of the relationship between nurse managers and their superiors.

Study results indicated that approximately 40.5% of the variance in job satisfaction was explained by the interaction of LMX quality, structural empowerment and CSE variables (correlations ranged from $r = 0.56$ to $r = 0.77$ and percentages ranged from $r^2 = 31$ to $r^2 = 59$). LMX quality had a positive direct effect on structural empowerment ($\beta = 0.42$), and the interaction positively impacted psychological empowerment ($\beta = 0.43$), which in turn had a positive and direct effect on job satisfaction ($\beta = 0.35$).

The results suggested that an effective, quality relationship with an immediate supervisor is related to an increase in the nurse manager's structural and psychological empowerment which is strongly correlated with positive work satisfaction. Overall findings suggested that both positive individual and environmental factors are important elements which can ultimately impact the successful performance of the nurse manager and overall goal effectiveness for the organization (Laschinger, 2007).

As healthcare organizations move to increase production of quality patient care delivery, with a reconfigured and leaner work force, the need to make that workforce more effective, satisfied and productive is critical. Thus, considering the link between nurse manager role behaviors and positive and productive work environments, it is important to determine how nurse manager role behaviors are influenced by S-CA and whether workplace characteristics such as structural empowerment as perceived by the nurse manager and psychological empowerment are correlated with nurse manager role behaviors.

Chapter III

METHODOLOGY

Design of Study

In this descriptive, correlational study, the relationships between and among self-care agency, perceived structural empowerment and psychological empowerment in nurse managers working in acute care hospitals with Magnet designation were examined.

The relationships between variables were analyzed using Spearman's rank order correlation and among variables by multiple regression analysis. Exploratory analyses were conducted with selected demographic characteristics to determine their relationship to S-CA, perceived structural empowerment, psychological empowerment and whether they in turn mediate the relationships between and among the above mentioned variables. Demographic characteristics included age, gender, race, education level, major academic degree, nursing specialty certification, years working in professional nursing, years working in the current institution in nursing management and in the current nurse manager position.

Description of the Population and Sample

The sample for this study was obtained from a population of registered nurses, currently employed as full-time nurse managers with 24 hour, 7 days a week unit or departmental responsibility in ANCC Magnet designated acute care hospitals in a mid-Atlantic state. Twenty four hour, 7 days a week unit responsibility ensures

consistent role responsibilities of all subjects regardless of title within the organizational structure. A sample size of at least 66 subjects to detect a medium effect size of $r = .30$, at a significance level of .05 with a power greater than .80 is justified by Cohen (1988) as the midpoint in correlations between discriminately different psychological variables. In a Multiple Regression, a sample size of at least 91 subjects is required to determine a medium effect size of $f^2 = .15$, at a significance level of .05 for 3 predictor variables (Cohen, 1988). Therefore a sample of at least 91 full-time registered nurse manager volunteers, with at least 12 months job experience as a nurse manager on the same unit in the same hospital were obtained.

Since role behavior is learned and perfected over time (Stevens, 1985), only registered nurse managers working on the same patient care unit in their current organization for at least 12 months were included. Since optimal S-CA is theoretically achieved by mature adults (Orem, 1995), only nurse managers aged 25 years and over were asked to volunteer for the study.

Setting

The setting was the patient care unit within acute care hospitals in a mid-Atlantic state. Each acute care hospital had a documented ANCC Magnet Status certification that was listed on the most current ANCC website list of Magnet hospitals (<http://www.nursecredentialing.org/FindaMagnetHospital.aspx>).

Ethical Considerations

The provision for the protection of human subjects in this investigation was maintained throughout the course of the study. In order to demonstrate access to study subjects prior to proposal approval submission to the Institutional Review Board (IRB) of Seton Hall University (SHU), Chief Nursing Officers (CNOs) from four Magnet hospitals in a mid-Atlantic state, that met inclusion criteria were approached and after a verbal explanation of the study (see Appendix A) was given, a request was made to have access to their hospital's nurse managers for recruitment as participants in the study. The four CNOs had preliminarily, verbally agreed to allow recruitment of nurse managers (NMs) from their hospitals. Written letters of support to allow access to nurse managers for the study were obtained from each hospital site CNO or their designee. Copies of the CNO support letters were added to the SHU IRB application packet and were reviewed during the SHU IRB review process. A formal letter of study approval was initially obtained from the SHU IRB. A copy of the SHU IRB approval letter was included with each application for individual hospital IRB approval to conduct the study submitted to each Magnet designated acute care hospital's research committee, or designated body. Each hospital IRB or designate research review committee granted IRB approval and provided a written Letter of Approval. Approval letters from each

hospital were forwarded to SHU IRB to be filed and originals were maintained by the researcher.

The researcher then contacted the CNO of each hospital to discuss the best process to meet with the NMs in the hospital to explain the details of the research study and request individual nurse manager participation in the study (see Appendix B). With CNO consultation, the researcher arranged for a private group meeting with nurse managers at a convenient time in a private hospital area provided by the CNO, who did not attend the meeting. At the beginning of the meeting, and after a brief explanation of the study, all nurse managers were given a research packet containing all study materials. NMs were asked to avoid opening the research packet until a later time when they were ready to begin answering the enclosed study materials. The researcher used a duplicate sample packet to show the research packet contents and explain the numerical code numbers on all questionnaires, and show and explain the Letter of Solicitation, the three questionnaires and the demographic information form.

The Letter of Solicitation (see Appendix C), which was the first item in the study packet, was read to the NMs by the researcher. It described the study and stated the study purpose, time requirements, data collection procedures, variable measures, voluntary nature of participation, anonymity, confidentiality, risks or discomforts, benefits of the study, contact information and implied consent. The packet also contained three questionnaires to measure self-care agency, perceived

structural empowerment and psychological empowerment as well as a demographic information form. Completion of the three measurements and demographic information form, based on a trial run by three volunteers had taken approximately 30 minutes to complete. The volunteers met study criteria, but their data were not included in the study. Potential subjects were told that their decision to participate or not in the study would have no impact on their jobs at their organization.

Each study packet, distributed to potential subjects was contained in an unsealed large manila envelope that had a randomly assigned ID number in the upper left corner of the envelope. The same random number was stamped on the upper left corner of each page of the three questionnaires and the demographic data sheet. Participants were instructed not to place their name on any of the data collection forms.

Nurse Managers who initially agreed to participate in the study were told that when they began completing the questionnaires, they should read the Letter of Solicitation first. When they had finished the questionnaires and demographic information form, the participant should place all forms back into the large numerically coded manila envelope and seal it before returning it to the large, sealed yellow box identified as completed research questionnaires which the researcher had already placed in their nursing office.

Subjects were assured there was no way for anyone to link their names with the numerically-coded four data collections forms. In addition, because the

randomly assigned system of coded numbers was not linked to the subject, all responses on the three data collection forms and demographic information sheet were anonymous. A master list with each hospital's code numbers was created by the researcher and maintained as a single electronic document. The master list of hospital code numbers was and will be maintained for seven years solely by the researcher on a separate thumb drive which is kept in a locked desk drawer in the researcher's locked private office where the researcher works. The hardcopies of the data will also be stored in the locked closet. Only the researcher has the single key to the desk drawer. The NM volunteers were told they have no obligation to participate in the study and at any time they were able to withdraw from the study without reprisal. Withdrawal from the study for any reason did not impact their employment or compensation and was not known to anyone including the researcher who never had the name of any participant and thus, subject names were never linked to the ID code number on the data collection materials. The only evidence of withdrawal was if fewer manila envelopes were returned than were distributed at any particular hospital. This hardcopy data has been and will be kept in a secure confidential file by the researcher.

Instruments and Measurement Methods

Self-Care Agency. Self-care agency was measured by the total scores obtained on the Exercise of Self-Care Agency (ESCA) scale (Kearney & Fleisher, 1979), a 43 item pencil and paper self-report that measures an individual's ability

or power to exercise self-care agency. The range of possible total scores for ESCA Scale is 0 (lowest) to 172 (highest) for the ability to exercise self-care agency.

Since its development in 1979, the tool has been found to be reliable in healthcare settings. Yamashita (1998) reported in a study assessing the ability to exercise self-care agency in Japanese nursing students, the Cronbach's alpha of .86. Callaghan (2006) studied older adult populations using the ESCA and reported that alphas for total scale and subscale ranged from .70 to .89 without identifying the origin of each alpha within the range.

The ESCA continues to be used to measure the overall dimensions of self-care agency throughout all levels of nursing and healthcare. It continues to be a reliable and valid tool and is appropriate to measure the nurse manager's ability or power to exercise self-care agency in an acute care hospital with Magnet designation in this study. In this study total ESCA scores were used.

Perceived Structural Empowerment. Perceived structural empowerment was measured by the total scores obtained on the Conditions of Work Effectiveness Questionnaire-II (CWEQ-II; Laschinger et al., 2001). The CWEQ-II is a 19 item, self-administered, paper and pencil, self-report that measures nurses' perceived structural empowerment using six subscales based on Kanter's theory of empowerment (1993).

All items on each subscale are measured on a 5 point Likert-like scale and all subscale items, except those on subscale 2, which measures knowledge, are scored from 1 *for none* to 5 *for a lot*. Subscale 2 is scored with a 1 for *no knowledge* to 5 for *knows a lot* (Laschinger, Finegan, Shamian & Wilk, 2004). The scores of the 6 subscales are then added to generate the total empowerment score. Laschinger et al., (2004) provide interpretation of the overall CWEQ-II score, based on the total sum of response scores for each of the 6 subscales with possible scores ranging from 6 to 13 indicate lower levels of empowerment, possible scores ranging from 14 to 22 indicate moderate levels of empowerment and possible scores ranging from 23 to 30 indicate high levels of empowerment. The complete range of possible total scores for CWEQ-II is 6 (lowest) to 30 (highest) for perceived structural empowerment.

Since its development, the tool has been found to be reliable; it has been consistently utilized by nurse researchers to assess the perceived structural empowerment of healthcare settings. Laschinger, Purdy and Almost in 2007, reported the range of Cronbach's alpha reliability scores for this tool in their 2001 study that assessed the nurse managers' perception of their work environment as .79 to .82. In other studies, the Cronbach's alpha reliability for the CWEQ-II was reported at .83 for registered nurses (McPeak, 2004) and at .84 for staff nurses (Kluska, Lashinger & Kerr, 2004). Additional studies of nurses in the work

environment by Laschinger, Almost, Purdy, and Kim (2004) and Armstrong and Laschinger (2006) were reported as $r = .89$ and $r = .94$ respectively.

The CWEQ-II continues to be used to measure elements of perceived structural empowerment throughout all levels of nursing and healthcare. It continues to be a reliable and valid tool and was appropriate to assess the perception of nurse managers regarding structural empowerment in an acute care hospital with Magnet designation in this study. In this study total CWEQ-II scores were used.

Psychological Empowerment. Psychological empowerment was measured as the total score on the Psychological Empowerment Instrument which was developed by Spreitzer (1995) to measure psychological empowerment in the workplace. The instrument is a 14 item, paper and pencil self-report that measures, on a 7 point Likert-like scale, an individual's perception of psychological empowerment based on four domains: meaning, competence, self-determination and impact. Item scores on the 7 point Likert-like scale range from 1 for *very strongly disagree* to 7 for *very strongly agree*. The total score for overall perception of psychological empowerment is calculated by summing the component specific score for each of the 4 components of the scale. Psychological empowerment scores are interpreted on a continuum, with higher scores indicating a higher perception of psychological empowerment and lower scores indicating a lower perception of psychological empowerment (Spreitzer, 1995). Total possible

scores for the Psychological Empowerment Instrument range from a high of 98 to a low of 14.

This tool has been found to be reliable in the healthcare literature. In the first of two Canadian healthcare studies that utilized the instrument to assess psychological empowerment in staff nurses, Laschinger, Finegan and Shamian (2001) reported an alpha reliability coefficient for total psychological empowerment as .89. In the second study of psychological empowerment in Canadian staff nurses, Laschinger, Finegan, Shamian and Almost (2001) reported an alpha reliability coefficient for total psychological empowerment as ranged from .87 to .92. The report did not state the specific alpha reliability coefficient for the Psychological Empowerment Instrument in the overall study; instead the authors reported a range of alpha coefficients connoting the relationship.

This tool continues to be utilized throughout health care and was appropriate for use in this study to evaluate the psychological empowerment of nurse managers in an acute care hospital with a Magnet designation. In this study total Psychological Empowerment scores were used.

Demographic Information Form

A general demographic questionnaire (see *Appendix D*) was constructed by the researcher to elicit information about the subjects including job description, title, age, gender, race, education level, academic degree, and specialty certification, years working in professional nursing in the current institution, in nursing

management and in the current nurse manager position. Other questions were used to substantiate if participants met all the delimitations of the study. Prior to data collection and based on the public documents on the hospital's website page and verbal confirmation of website data by the hospital's CNO, the researcher recorded that all four hospitals were not-for-profit.

Data Collection Procedures

Volunteer subjects were recruited from four acute care, mid-Atlantic hospitals with a current ANCC Magnet designation. CNOs of these four hospitals were informally queried about their willingness to allow the researcher to recruit subjects from their hospitals and provide a letter of support. After receiving the letters of support for recruitment from the CNOs, the letters were included with the SHU IRB application for study approval to indicate the researcher's access to study subjects. Following the receipt of the SHU IRB study approval letter, an application was made to each hospital's IRB to perform the study. A copy of the SHU IRB approval letter was included with each hospital IRB application. After receiving the formal letter of approval from each hospital's IRB committee, a copy of each letter was sent to SHU IRB office for their files. After completion of the approvals process by the SHU and hospital IRB committees, there was formal in-person discussion of study details with the CNO of each hospital and a copy of the hospitals IRB approval letter was presented. The researcher explained the study and reiterated the researcher's original request for access to recruit hospital nurse

managers as study subjects (See Appendix A). Each CNO arranged a meeting with the nurse manager group either by setting up a separate meeting or by appending extra time to a nurse manager meeting already scheduled. As planned, the CNO did not attend the researcher-nurse manager meeting. At each meeting, the researcher explained the study using an Oral script (see Appendix B) which ensured consistency of communication with nurse managers across all group meetings in participating hospitals.

All nurse managers who attended the meeting were given a research packet containing all study materials including a Letter of Solicitation (see Appendix C), a demographic information form (see Appendix D), and three questionnaires to measure study variables including self-care agency (see Appendix E), perceived structural empowerment (see Appendix F), and, psychological empowerment (see Appendix G). It was explained that completion of the three questionnaires and the demographic information data form took approximately 30 minutes based on a trial-run completed by three volunteers who met study criteria. Following the description of the contents of the study packet by the researcher to potential study participants, the NMs were asked to read the Letter of Solicitation and complete the data collection scales on their personal time, preferably in a quiet place where they would not be disturbed. It was requested that the need to stop completing any tool occurs for whatever reason; NMs should complete the individual tool on which they are working before stopping. Nurse manager rights as a study participant, as

stated on the Letter of Solicitation, were presented verbally by the researcher who noted the specific location on the documents where written contact information for the SHU IRB Committee Chairperson was noted in case the NM had questions regarding her or his rights as a study participant. In addition, written contact information for the researcher and Dissertation Chairperson was also noted on the Letter of Solicitation in case the NM has questions about the study, or the research process (see Appendix C). Subjects were told that whether they participated or not would not be known to anyone and in no way would their decision to participate or not in the study impact their jobs in their organization (see Appendix C).

Each study packet, distributed to potential subjects was enclosed in an unsealed large manila envelope that had a randomly assigned ID number in the upper left corner of the envelope; as did all other contents in the packet except for the Letter of Solicitation. Return of completed questionnaires by the volunteer nurse manager participants provided their implied informed consent to participate in the research study and no written informed consent document was used.

Nurse Managers who agreed to participate were instructed to complete each of the questionnaires and after completion they should place all four completed questionnaires into the coded manila envelope. They were also instructed to seal the coded manila envelope containing the four completed data collection forms which should then be placed into the secured yellow box labeled the “completed research questionnaires” which the researcher had already placed in the nursing

office. In order to maintain the integrity of the research methodology and security of the copyrighted tools, NMs were again asked to return any unused or unfinished research packet to the nursing office box if they had decided not to participate, or to withdraw from the study after having initially accepted the research packets.

The researcher collected the returned research packets from the secured yellow, completed research questionnaire box in each hospital's nursing office at one week intervals, on two separate data collection visits. At the first pick-up, if the number of returned manila envelopes was not equal to the number of envelopes originally distributed, the researcher distributed a dated reminder notice to all nurse managers, through the existing nurse manager committee structure, asking that anyone who has not yet returned her or his completed research materials to please do so within the next 5 working days. The widely distributed reminder notice insured that all NMs received the notice, because the researcher did not know who had, or had not already returned the research materials.

After the return of all envelopes originally distributed to the nurse managers, the researcher delivered a letter of appreciation for the participation to the nurse managers through the office of the CNO who agreed to forward the message to all the nurse managers. At the initial nurse manager recruitment meeting, the researcher had offered to give a formal presentation of the overall study findings at the completion of the study. This offer was reiterated in the researcher's letter of appreciation delivered to the CNO's of each hospital. The researcher plans to

contact each hospital's CNO to coordinate a date and time for the presentation to the nurse managers and any other personnel who might be interested in attending.

Analysis of the Data

Data were analyzed using SPSS for Windows: version 15.0. Cronbach's alpha coefficients for internal consistency reliability were computed for all psychometric measures used in the study. Frequency distributions were calculated using descriptive statistics including measures of central tendencies such as mean, median and mode; variability including standard deviation and skewness as a measure of symmetry of the distribution. These data provided a descriptive summary of the sample and provided the basis for statistical inference. As appropriate, inferential analyses were employed to understand patterns within the demographics and as they related to the major variables in order to best characterize the sample. Because descriptive analysis for the symmetry of the distribution of scores on all the major variables indicated a negative skew, the original plan to assess correlations between the variables using Pearson's Correlations was no longer appropriate since skewness violated Pearson's requirement of central tendency. Instead, Spearman's rank order correlation statistic, which does not require that scores be normally distributed, was used to calculate correlations. Interactive relationships among the independent variables and self-care agency as the dependent variable were assessed with hierarchical multiple regression.

Hypothesis Testing

Hypotheses 1 through 3. The Spearman rho correlation coefficient was calculated to analyze the data for correlational relationships between:

H₁ S-CA and perceived structural empowerment

H₂ S-CA and psychological empowerment

H₃ Perceived structural empowerment and psychological empowerment

Research Question. Hierarchical multiple regression was used to analyze if there is a positive relationship between S-CA, and the interaction of perceived structural empowerment and psychological empowerment in nurse managers in acute care hospitals with Magnet designation?

CHAPTER IV

RESULTS

Data Analysis Procedures

This study investigated the relationships between and among self-care agency, perceived structural empowerment, and psychological empowerment in nurse managers in acute care hospitals with Magnet status. The female ($n = 87$, 91%) and male ($n = 9$, 9%) nurse managers ranged in ages from 26 to 65 years of age ($M = 47.9$, $SD = 9.4$). The population did not depart sufficiently from a normal distribution of U.S. nurse managers to threaten the robustness of the inferential statistics. All participants were working full time as nurse managers in an acute care hospital with Magnet status.

Participants completed the Exercise of Self-Care Agency (ESCA) scale, the Conditions of Work Effectiveness II (CWEQ-II) Questionnaire, the Psychological Empowerment Instrument and a demographic information form. Data were analyzed using the Statistical Package for the Social Sciences (SPSS 15.0 for Windows Release, 15.0.0) subprograms for the Spearman's Rank-Order Correlation, the Multiple Regression and the Multivariate Analysis of Variance (MANOVA). The sample size of full time nurse managers with one year or more experience as a manager on the same unit in the current hospital was sufficient and justified by Cohen (1988) to detect a medium effect size, $r = .30$, at the alpha level

of .05 and power greater than .80 in order to detect the midpoint in correlations between discriminately different psychological variables in the hypotheses (66 subjects required), and for a medium effect size in multiple regression analysis of the interactive variables in the research questions, sample size of 91 subjects was required. Descriptive analysis provided information about characteristics of the sample as well as the study variables. Demographic data that were collected included the variables of age, gender, race, education level with highest academic degree for nursing or non-nursing, specialty certification, organizational title for nurse manager position, overall years of experience as a nurse manager and as a nurse manager in current hospital and current unit, number of units and departments managed under scope of responsibility, total of number of years working full time and part time as a professional nurse and total number of years working in the current acute care hospital.

Demographic variables are reported in frequencies and percentages in Table 1. Means and standard deviations were calculated and are reported for all variables. Data for descriptive variables were examined to determine if the sample met assumptions required for conducting proposed inferential statistical procedures. Breakdowns of these data are displayed in Table 1.

Table 1
Descriptive Statistics – Variables with Multiple Responses (N = 97)

CHARACTERISTICS	N	Total	Percent
<i>Demographics</i>			
Age group (years)		84	
26-35	11		13%
36-45	23		27%
46-55	29		35%
56-65	21		25%
Gender		96	
Female	87		91%
Male	9		9%
Race*		95	
White	68		72%
African American	12		13%
Asian	10		10%
Hispanic	5		5%
<i>Education</i>			
Highest academic degree earned nursing education		95	
DNP	1		1%
MS/MSN	48		51%
BSN	41		43%
AD	3		3%
Diploma	2		2%
Highest academic degree earned non-nursing education		36	
Doctorate	1		3%
Master's	18		50%
Bachelor's	17		47%
Specialty certification		96	
Yes	68		71%
No	28		29%

Table 1 (Continued)

Descriptive Statistics – Variables with Multiple Responses (N = 97)

<i>Descriptive Statistics – Variables with Multiple Responses (N = 97)</i>			
Job Description			
Nurse manager for inpatient units & departments		97	
Yes	97		100%
No	0		0%
Title of position in nursing management			
		97	
Unit manager	50		52%
Director	23		24%
First-line manager	7		7%
Assistant director	2		2%
Other	15		15%
Number of units of responsible			
		92	
One unit	46		50%
Two units	18		20%
Three units	9		10%
Four or more units	19		20%

Descriptive Statistics – Variables with Single Response (N = 97)

Factor	N	Mean	SD	Median	Range
1. Total number of years as professional nurse					
Years -- Full time*	95	21.9	9.2	23.0	1 - 41
Years -- Part time	91	2.6	5.6	1.0	1 - 24
2. Total number of years as nurse manager	93	10.6	7.8	9.0	1 - 31
3. Years employed in current institution	94	15.2	10.4	14.0	1 - 42
4. Years as nurse manager in current unit/dept.	96	6.8	7.0	4.1	1 - 30

*Out of the 95 respondents for FT number of years of service, 91 also reported working PT

Research Participants

One hundred percent (N = 97) of the participants had been nurse managers for 12 months or more in the same hospital and on the same unit/department and thus met the criteria for inclusion in the study. The largest percentages of nurse managers (35%) were in the 46 – 55 years of age group. Ninety-one percent of the participants were female and 72% were Caucasian. African Americans (n = 12), comprised 13% of the sample; Asians (n = 10) were 10% and Hispanic (n = 5) were 5%. Forty-three percent of nurse managers reported having a baccalaureate degree in nursing and 52% reported having a graduate degree in nursing. Of the 36 nurse managers who reported having a non-nursing degree, 47% had a non-nursing baccalaureate degree (n = 17) and 53% had a non-nursing graduate degree (n = 19). Seventy one percent (n = 68) reported having a specialty certification. Ninety-seven (100%) were nurse managers for hospital inpatient units and/or departments. Organizational titles used for nurse managers were Unit Manager (n = 50, 52%); Director (n = 23, 24%); First line Manager (n = 7, 7%); Assistant Director (n = 2, 2%) and various other titles (n = 15, 15%). Fifty percent of nurse manager participants reported being responsible for one unit/department, 20% for two units/departments, 10% for three units/departments and 20% reported being responsible for four or more units/departments. The total numbers of years as a professional nurse ranged from 4 to 42 years (Mdn = 25). Total number of years as a nurse manager ranged from 1 to 31 years (Mdn = 9). The number of years

employed at the current institution ranged from 1 to 42 years (Mdn = 14), years as a nurse manager in their current institution ranged from 1 to 42 years (Mdn = 5) and years as nurse manager on current unit ranged from 1-30 (Mdn = 4.1). Table 1 provides a comprehensive composite of demographic information about the sample.

Summary Statistics of the Main Variables

The major data analysis was the calculation of the descriptive statistics for the main variables. The possible range of scores for the Exercise of Self-Care Agency (ESCA) Scale is from 0 to 172. The range for the ESCA scores was from 83 to 146, (M = 117.5, Mdn = 118, SD = 11.5) for the participants in this study sample.

The possible range of scores for the Conditions of Work Effectiveness (CWEQ-II) is from 6 to 30. The range for the CWEQ-II scores was from 15.3 to 29, (M = 22.7, Mdn = 22.8, SD = 2.9) for the participants in this study sample.

The possible range of scores for the Psychological Empowerment Instrument is from 14 to 98. The range for the Psychological Empowerment Instrument scores in this study was from 15 to 98, (M = 79.8, Mdn = 83.0, SD = 17.1) for the participants in this study sample. Table 2 provides a comprehensive composite of main variable scores of the study sample.

Table 2

Overall Scores for Self-Care Agency, Structural Empowerment and Psychological Empowerment (N=97)

Factor	Mean	SD	Median	Possible Range	Actual Range	Skewness
Self-Care Agency	117.5	11.5	118.0	0 - 172	83 – 146	- 0.35
Structural Empowerment	22.7	2.9	22.8	6 - 30	15.3 - 29.0	- 0.34
Psychological Empowerment	79.8	17.1	83.0	14 - 98	15 – 98	- 2.28

Presentation of Results

Hypotheses Testing. Computation of the measures of central tendencies for the participant scores on all measures of the major study variables, including self-care agency, structural empowerment and psychological empowerment were severely, negatively skewed. Because the scores on the major variables were not normally distributed and did not conform to a major assumption for using the planned Pearson’s Correlation for data analysis of the hypotheses, the “non-parametric analog of Pearson’s r ” (Polit & Beck, 2004, p 235), the Spearman’s rank order correlation, was used to test all hypotheses. The r_s symbol used to report the Spearman correlation coefficient in the hypothesized findings of this study, is analogous to the r used to report the Pearson’s correlation coefficient.

Table 3

Spearman's Rank Correlation Table (r_s) (N = 97)

	Self-Care Agency	Structural Empowerment	Psychological Empowerment
Self-Care Agency	--	$r_s = 0.42$ (18%†)*	$r_s = 0.25$ (6%†)**
Structural Empowerment	$r_s = 0.42$ (18%†)*	--	$r_s = 0.35$ (12%†)*
Psychological Empowerment	$r_s = 0.25$ (6%†)**	$r_s = 0.35$ (12%†)*	--

Note. * $p < 0.001$. ** $p < 0.05$, obtained for testing the hypothesis that Spearman's rank correlation coefficient = 0.

† The proportion of variance in the ranks of Self-Care Agency that can be accounted for by knowing the ranks of the other measure

The proportion of shared variance in the ranks of the two variables Structural Empowerment and Psychological Empowerment was 12%.

Hypotheses

H₁ It was hypothesized that there would be a positive relationship between self-care agency and perceived structural empowerment. Spearman rank correlation between self-care agency and perceived structural empowerment had a moderate positive correlation at $r_s = 0.42$ ($p < 0.001$) which explains 18% of the shared variance of self-care agency and perceived structural empowerment. The hypothesis that there would be a positive linear relationship between self-care agency and perceived structural empowerment was supported.

H₂ It was hypothesized that there would be a positive relationship between self-care agency and psychological empowerment. The Spearman rank correlation between self-care agency and psychological empowerment was $r_s = 0.25$. This positive relationship was significant at $p < 0.05$ which indicates statistical support

for the hypothesis, but because it explains only 6% of the shared variance, which is low in magnitude, this may be a spurious relationship. Although the strength of the relationship was low, the hypothesis that there would be a positive relationship between self-care agency and psychological empowerment was supported.

H₃ It was also hypothesized that there would be a positive relationship between perceived structural empowerment and psychological empowerment. The Spearman rank correlation between perceived structural empowerment and psychological empowerment was $r_s = .35$. This positive correlation between perceived structural empowerment and psychological empowerment was low, but statistically significant at $p < 0.001$ and explains 12% of the shared variance. The hypothesis that there would be a positive relationship between perceived structural empowerment and psychological empowerment was supported.

In summation, the results in Table 3 show a statistically significant positive, moderate correlation between self-care agency and structural empowerment ($r_s = 0.42$, $p < 0.001$). Furthermore, there was a statistically significant, positive and weak correlation between self-care agency and psychological empowerment ($r_s = 0.25$, $p < 0.05$). The results also demonstrated a statistically significant positive and adequate correlation between structural empowerment and psychological empowerment ($r_s = 0.35$, $p < 0.001$).

Table 4

Multivariate Linear Regression Model for Self-Care Agency. (N = 88).*

Factor	Mean or %	Parameter Estimate (PE)	95% CI	p-value	R ²
Constant (Self-Care Agency)		96.29	(73.21,119.38)	0.19	0.18
Structural Empowerment (per 1 unit)	22.7	1.30	(0.51,2.09)	0.02	0.29
Age (per 10 years)	47.9	-1.82	(-6.35,2.70)	0.43	
Gender male (vs. female)	9.3%	-3.68	(-11.77,4.41)	0.38	
Race (vs. White)					
African American	12.4%	1.20	(-6.55,8.94)	0.76	
Other (Asian & Hispanic)	17.5%	7.21	(0.62,13.79)	0.035	
Nursing education (undergrad/assoc. vs. graduate)	47.4%	-0.47	(-5.21,4.28)	0.85	
Number of years of professional RN (per 1 year)	24.5	-0.15	(-0.60,0.30)	0.51	
Number of years as a nurse manager (per 1 year)	10.6	0.32	(-0.05,0.68)	0.096	
Specialty certification (yes vs. no)	70.1%	0.31	(-4.99,5.61)	0.91	

Note. Model also adjusted for missingness indicator for Structural Empowerment (1% missing), age (13% missing), nursing education (2% missing), number of years as professional RN (7% missing) and number of years as a nurse manager (5% missing). Less than 100% (N = 88) of total sample of 97 due to missing data.

Further analysis of the data using a stepwise linear regression model, as shown in Table 4, revealed an improved prediction of self-care agency which was significantly associated with higher structural empowerment (Parameter Estimate [PE], also known as the Regression Coefficient, PE = 1.30, $p = 0.002$). Psychological empowerment was not used in the linear regression model in Table 4, because it did not add any predictive value to the model in prior correlational analysis that showed the shared variance between self-care agency and psychological empowerment, as noted in Table 3, provided no added value to the understanding of self-care agency. A final test of the value of adding psychological empowerment to the Table 4 model is explained below in Step 3. When demographic variables were added to the model, it showed that the Other group

(Asian and Hispanics) had a significantly better self-care agency when compared to self-care agency in Whites (PE = 7.21, $p = 0.035$). Also, improved self-care agency was marginally, but not significantly related to a higher number of years as a nurse manager (PE = 0.32, $p = 0.096$). The final model was adjusted for all other demographic and nursing-related factors. None of the demographic factors alone was related to self-care agency ($p > 0.05$) until structural empowerment was added to the model.

Steps for Table 4 model development included:

- (1) The above model in Table 4, where Self-Care Agency (S-CA) is the constant, was first fitted without structural empowerment. The p -value from the regression model with demographic factors alone was only 0.19 indicating that demographic factors alone did not predict S-CA to a statistically significant degree ($R^2 = 0.18$, indicating that only 18% of the variability in S-CA was explained by the demographic variables)
- (2) Adding structural empowerment to the initial model (S-CA with demographics factors alone) described in Step 1 (see Table 4) resulted in significant findings ($p = 0.021$) which indicated that the expanded model, that included demographic factors and structural empowerment predicted S-CA to a statistically significant degree. The expanded model also showed an improvement in R^2 ($R^2 = 0.29$) which indicated that adding structural empowerment to the model increased R^2 from 18% (for S-CA with demographic factors alone) to 29% (for S-CA with

demographic factors and structural empowerment). Thus, 29% of the variability in self-care agency is now explained in this expanded model.

(3) As an additional step to test whether adding psychological empowerment to the expanded model (in Step 2) would add to the explanation of S-CA, there was no increase R^2 (29%), which indicates that psychological empowerment did not add any predictive power to the expanded model in Table 4.

Research Question

The research question examined whether there was a positive relationship between self-care agency and the interaction of perceived structural empowerment and psychological empowerment in nurse managers in an acute care hospital with Magnet designation.

Table 5

*Multivariate Linear Regression Model for Self-Care Agency Including Interaction term * N=97*

Factor	Mean or Mean or %	Parameter Estimate (PE)	95% CI	p-value
Constant (Self-Care Agency)		35.14	(-65.66,135.95)	
Structural Empowerment (per 1 unit)	22.7	3.86	(-0.34,8.07)	0.076
Psychological Empowerment	79.8	0.77	(-0.47,2.00)	0.23
*Interaction: Structural x Psychological	1826.7	-0.03	(-0.08,0.02)	0.23
Age (per 10 years)	47.9	-2.00	(-6.56,2.55)	0.39
Gender male (vs. female)	9.3%	-4.11	(-12.25,4.04)	0.33
Race (vs. White)				
African American	12.4%	1.07	(-6.76,8.91)	0.79
Other	17.5%	6.92	(0.25,13.59)	0.046
Nursing education (undergrad/assoc. vs. graduate)	47.4%	0.07	(-4.78,4.92)	0.98
Number of years of professional RN (per 1 year)	24.5	-0.15	(-0.61,0.31)	0.54
Number of years as a nurse manager (per 1 year)	10.6	0.31	(-0.06,0.68)	0.10
Specialty certification (yes vs. no)	70.1%	0.52	(-4.95,6.00)	0.85

Note. Model also adjusted for missingness indicator for Structural Empowerment (1% missing), age (13% missing), nursing education (2% missing), number of years as professional RN (7% missing) and number of years as a nurse manager (5% missing). Less than 100% (N = 88) of total sample of 97 due to missing data.

The addition of the interaction variable resulting from Structural Empowerment x Psychological Empowerment to the constant Self-Care Agency does not improve the original model ($R^2 = 0.29$).

The results as shown in Table 5 using a multivariate linear regression model showed the positive relationship between self-care agency and the interaction structural empowerment and psychological empowerment variables was not statistically significant ($p = 0.23$).

Reliability of Measures

Among the purposes of this study was to test the reliability of the ESCA scale, the Conditions of Work Effectiveness Questionnaire-II, and the Psychological Empowerment Instrument. The alpha coefficient is a measure of the

internal consistency of an instrument and indicates the extent to which the items on the scale measure the attribute being studied.

The Cronbach's alpha coefficient for the total Exercise of Self-Care Agency (ESCA) scale (Kearney & Fleisher, 1979; Appendix E), used to measure self-care agency in this study was 0.68. The alpha coefficient for the total Conditions of Work Effectiveness Questionnaire-II (CWEQ-II; Laschinger, 2001c; Appendix F) used to measure perceived Structural Empowerment in this study was 0.91. The alpha coefficient for the Psychological Empowerment Instrument (Spritzer, 1995; Appendix G), used to measure psychological empowerment in this study was 0.97. The current alpha reliability coefficients in this study for the CWEQ-II and the Psychological Empowerment Instrument were consistent with the overall average of the alpha coefficients reported in prior studies for each measure which were .085 and 0.90 respectively.

The alpha coefficient of 0.68 for the ESCA scale in this study was slightly lower than the alpha coefficients of 0.70 (Callahan, 2003) and 0.86 (Akyol, Cetinkaya, Bakan, Yarah, & Akkus, 2007) reported in the two prior studies of older adults and nursing students respectively, but the alpha of 0.68 does still meet the criteria for an acceptable alpha reliability coefficient since, it falls at the high end of the acceptable range of 0.6 to 0.7 cited by Cavana, Delahaye and Sekeran (2000). Potential explanations for the lower than anticipated alpha reliability of the

ESCA scale in this study were provided by several authors and warrant consideration:

- Frank-Stromborg and Olsen (2004) remind researchers that reliability is not a constant characteristic of a given instrument. Rather, reliability for an instrument changes depending on the population studied and the conditions of testing.
- In this study, the ESCA scale was completed by nurse managers, representing a naïve population for ESCA use. Thus, the lower than expected alpha may be explained as the tendency of the alpha reliability to be lower when instruments are used in early research, or for the first time in unique populations (Frank-Stromborg & Olsen, 2004; Pedhazur & Schmelkin, 1991).
- Pedhazur & Schmelkin (1991) cautiously provide a range of acceptable reliability standards, including a low cutoff point of 0.50 (p. 109). The authors propose that accepting scores with low or borderline reliability is the responsibility of the researcher, and should be based on the type of decisions at stake (Pedhazur & Schmelkin, 1991). Thorndike and Hagen (1977) support the idea that a minimally acceptable alpha should not be established as a rule for all studies.

Regardless of the borderline alpha reliability coefficient for this first time use of the ESCA scale in this study of nurse managers, the decision to accept the reliability level was made because of the historic strength of the tool.

Summary

This study indicates that within this sample, between and among the nurse managers who work in acute care hospitals with Magnet status, the nurse manager's self-care agency was statistically significantly related to perceived structural empowerment and psychological empowerment. In this study, a moderately strong correlation was observed between self-care agency and structural empowerment ($r_s = 0.42$, $p < 0.001$) and a weak correlation was found between self-care agency and psychological empowerment ($r_s = 0.25$, $p < 0.005$). The correlation between structural empowerment and psychological empowerment was low ($r_s = 0.35$, $p < 0.001$) and fell midway between the correlations of either concept alone with self-care agency.

ESCA scores for the combined Asian and Hispanic, i.e., Other nurse group ($n = 15$, 15 %) were significantly higher ($p = 0.035$) than ESCA scores for the White nurse group ($n = 68$, 72%). There was no difference between ESCA scores for African American ($n = 12$, 3%) and white nurse groups. All groups were equally weighted for comparisons. Findings indicated that, except for the higher ESCA scores in the Other, no other demographic variables were predictive of higher ESCA scores and thus, none predicted self-care agency in the study sample.

In response to the research question on interaction effect, no significant relationship between the nurse manager's self-care agency with the interaction of perceived structural empowerment and psychological empowerment were observed ($p = 0.23$).

CHAPTER V

DISCUSSION OF FINDINGS

This study examined the relationship between and among self-care agency, perceived structural empowerment and psychological empowerment in nurse managers who work full time in acute care hospitals with Magnet status. To investigate these relationships, 97 participants completed the Exercise of Self-Care Agency Scale (ESCA), Conditions of Work Effectiveness II (CWEQ-II) Questionnaire (a measure of structural empowerment), Psychological Empowerment Instrument and a Demographic Information Form. Overall, the findings of this study showed a positive relationship between self-care agency and structural empowerment in nurse managers in an acute care hospital with Magnet designation. While there was a weak positive relationship between self-care agency and psychological empowerment, the results were likely spurious, but in the positive direction. The inclusion of Orem's theory of self-care agency is an important extension to previous work in this area.

Self-care agency, in this study, was presented as a nurse manager's enabling ability to govern his or her job related achievements and goals, including attainment and use of the specific skills and knowledge. These skills and knowledge are needed to perform the important role behaviors required of a successful nurse manager (NM). The literature supports the link and strong positive influence of successful NM leadership behaviors with the work environment of unit based staff nurses and its

subsequent positive impact on the nursing care of patients at the bedside (Anthony, Standing, Glick & Duffy et al., 2005), However, the literature provides no clarity about how to identify the internal components and pre-requisites of such successful role behaviors, nor does the literature provide an understanding of how external environmental elements in the workplace may influence the nurse manager's positive work behaviors. Although relationships between organizational support for the nurse managers in maintaining a healthy work environment have been examined and established empirically from the perspective of an organization (Kramer & Schamalenberg, 2008; Parsons, Cornett, & Golightly-Jenkins, 2006), only limited research has been done to examine specific innate nurse manager traits in relation to work environmental factors. Traits that impact the nurse manager within the environment, such as the availability of empowerment opportunities, are meant to improve the NM's ability to support attainment of the goals of the organization. Informed by Orem's theoretical perspectives, this study's purpose and design were operationalized and this chapter provides a discussion of the main and ancillary study findings.

The Sample

The study sample consisted of volunteer participants recruited from four mid-Atlantic acute care hospitals with Magnet status following informational presentations to each hospital nurse manager constituency group. After each hospital specific IRB approval of this study, the organization's specific Chief Nursing Officer

(CNO) provided entrée for a participant recruitment meeting with the NM constituency group. According to the study design, formal signed informed consent was not required and thus the IRB approved use of the implied consent process. In implied consent, the voluntary acceptance, completion and return of study questionnaires by willing participants was considered implied informed consent. Initially, 140 NMs met the inclusion criteria, had initially agreed to participate in the study and had accepted the research packet for completion at home. Of the 140 potential participants, 97 (69%) fully completed the ESCA scale, CWEQ-II and Psychological Empowerment Instrument; of these 97 participants, eighty-eight (90%) responded to the majority of individual items on the Demographic Form. The sample size of 97 met the power requirements predefined for study significance.

The Instruments

Self-care agency as conceptualized by Orem (1980) consists of three types of personal traits which are part of a complex structure. The enabling trait (power components) pertains to deliberate actions taken by an individual specifically for self-care (Carter, 1998). Analysis of this enabling trait was a key part of the basis of this study. An in-depth literature review revealed that five tools had been developed to measure important aspects of self-care agency, which Orem (1980) described as a complex concept with many interrelated aspects. None of the existing tools were previously used in evaluation of nurses' self-care agency. The ESCA scale was developed prior to the Nursing Development Conference Group (NDCG) description

of the 10 power components used in development of subsequent instruments (Carter, 1998). Gast, Denyes, Hatweg, Schott-Baer and Isenberg (1989) reviewed the ESCA scale and reported that the ESCA factors supported 5 of the 10 power components.

The decision to use the ESCA scale with the nurse manager sample in this study was based on previously reported acceptable reliability when the scale was used in various other healthcare related study populations including patients (Akyol, Cetinkaya, Bakan, Yarah, & Akkus, 2007; Karagozoglu, Arikan, & Eraydin, 2012) and nursing students (Yamashita, 1998).

The Exercise of Self-Care Agency (ECSA) scale measured the Nurse Manager's perception of his or her ability or power to exercise self-care agency (S-CA) based upon the theoretically related conceptual framework by Orem (Kearney & Fleisher, 1979). Reliability and validity data reported for the ESCA scale in prior studies that examined S-CA in a variety of populations, many of whom were health care providers and patients, strongly influenced the decision to use the ESCA scale in this study. There were no published reliability and validity data use of the ESCA scale as a measure of S-CA in a unique sample of nurse managers. For the current study, the ESCA scale demonstrated a low, but acceptable overall reliability (Cronbach's $\alpha = 0.68$) in a sample of 97 full-time registered nurses with one year, or more, experience as a NM. All NMs were assigned to the same acute care patient unit in the same hospital for the required time frame of (one year or more) prior participation in this study.

In previous studies, alpha reliability coefficients ranging from 0.81 to 0.90 for the ESCA scale were reported in health related studies of elderly persons in rest homes (Karagozoglu, Arikan & Eraydin, 2012), hypertensive adults (Akyol, Cetinkaya, Bakan, Yarah, & Akkus, 2007), nursing students (Reisch & Hauck; 1988) Yamashita, 1998) and healthy post-menopausal women (Owens, 2007). The current minimally acceptable low Cronbach's alpha ($\alpha = 0.68$) for the ESCA scale when used in the current nurse manager sample warrent further discussion. To better understand possible reasons why the current alpha was lower than previously reported reliability coefficients, one must consider the standards for an acceptable alpha reliability, as well as potential specific factors within the study that could have impacted reliability. While Nunnally (1975) states that 0.70 is the minimally acceptable alpha reliability coefficient for a newly developed tool, Thorndike and Hagen (1977) suggest there is no general answer to questions such as "what is the minimal reliability that is acceptable?" (p. 92), which can be applied to all studies. In addition they suggest that information about an individual, or a group can be measured with some degree of accuracy even when a reliability score is minimal as long as the required level of measurement is accurate. There is strong evidence of the validity of the ESCA scale as an accurate measure of S-CA (Kearney & Fleischer, 1979) and for its projected validity for use in a nurse manager sample in the study. For example, Callahan (2003) reported a low, yet adequate reliability ($\alpha = 0.70$) for the ESCA scale in a study designed to evaluate basic conditioning factors in older adults. It is important to note

that the current study was the first to specifically measure behaviors and traits in nurse managers related to self-care agency with the ESCA scale and thus, a low alpha reliability would be expected (Pedhazur & Schmelkin, 1991).

Among other important study findings for consideration was the negative skew for the total score on each of the three major variable measures namely, the Exercise of Self-Care Agency scale, the Conditions of Work Effectiveness–II and the Psychological Empowerment Instrument. There is no evidence in prior studies using the ESCA scale that scores for the samples were skewed. For the current study, original plans to perform Pearson's Correlation tests to examine the relations between major variables were dismissed because the sample scores for measures of each of the three major variables did not meet assumptions of normalcy for central tendency. Instead, a Spearman Rho analysis, which utilizes rank order values of scores and does not require that data meet all criteria for central tendency, was utilized, thus avoiding possible distribution errors that might occurred if Pearson's correlations of the items were used for the negatively skewed scores on each of the three measures. One possible reason for the negatively skewed results on each of the major variable measures may be because in this population, the nurse managers, all of whom work in acute care hospitals with Magnet status, professional and organizational values reflective of the work environment may be more similar than not, and were thus evidenced in the generally high scores on the items being measured on each of the instruments. Whether the driving force for the high scores on all three variable

measures was related to the organizational requirements as reflected in nurse manager behaviors needs further examination. Future research to compare nurse manager values and behaviors in Magnet vs non-Magnet status hospitals needs to be explored.

When planning this study the expectation was that nurse managers were more similar to, than different from, prior non-nurse manager samples whose ability to activate their internal power, or self-care agency had been successfully measured with the ESCA scale. Although the literature does not reveal studies that used the ESCA scale with a nurse manager sample, prior studies are important because they provide evidence of acceptable alpha reliability coefficients for the ESCA scale in clinical studies.

Simons (2005) examined nurse managers to better understand whether behaviors reported by the nurse managers as self-caring were linked to the work environment and whether or not the interaction of nurse behaviors and the work environment influenced achievement of unit-based organizational goals. Fundamental to the qualitative study was the theoretical assumption that a nurse manager's self-caring behaviors occurred through their personal commitment to maintain the core values of nutrition, exercise and rest. The study findings linked the power of self-care to the positive influence of healthy aspects of the work environment for nurses. Re-occurring themes indicated that with consistent internal renewal through nutrition, exercise and rest, the nurse manager is able to exercise power or ability to produce a better quality of work and thus is able to meet the goals of the organization (Simons,

2005). A weakness of this study is Simons' failure to conceptualize the nurse manager's self-caring within a holistic nursing perspective, suggesting instead that unique behavioral outcomes, reported as good nutrition, exercise and rest behaviors reflect the nurse manager's ability to consistently rejuvenate self-caring behaviors. In addition, it is problematic that the nurse manager's ability to activate his or her self-caring behaviors to achieve the organizational goals was assumed by the author and not based on evidence. It is important to recognize, that in spite of study weaknesses, Simons has provided evidence of the first published attempt to qualitatively measure a nurse manager's self-caring as the nurse manager's power or enabling ability to perform self-care. Simons' qualitative findings indicated the need for future analysis by using a valid and reliable tool to evaluate self-care of a nurse manager. In response to the need for improved measurement of nurse manager self-care, the current study provides objective, quantitative evidence that demonstrates the existence of correlations between the nurse manager's power or enabling ability as self-care agency and the structural environment of the hospital organization. In addition, the relationship between self-care agency and structural empowerment were positively correlated and structural empowerment was correlated with psychological empowerment.

In general, the ESCA scale may be the best available measure of self-care agency. The current study supports the appropriateness of using the ESCA scale to measure the power or ability to exercise self-care agency in NMs. This study of NMs

brings attention to and supports the need to further evaluate the reliability and validity of the ESCA scale to measure the power or ability of S-CA among NMs who are believed to exercise role behaviors unique to their managerial position in health care organizations. The acceptable alpha ($\alpha = 0.68$) found in this first-time use of the ESCA scale in this study that used a nurse manager sample to examine S-CA and possible work related variables, supports possible future use of the ESCA scale with additional studies among NMs. The total scores for the ESCA scale were negatively skewed (- 0.35) which indicated an overall positive self-care agency in the NMs who participated in this study and as such, an appropriate measure of the variable.

Conditions of Work Effectiveness-II (CWEQ-II) measured the six components of structural empowerment (Laschinger et al., 2001) based on Kanter's (1977, 1993) theory of structural empowerment. Strong reliability and validity data for the CWEQ-II, was available based on research findings from the study by Laschinger, Purdy and Almost (2007), who reported an alpha reliability of 0.82 when assessing nurse manager's perception of their work environment. In the current study, the CWEQ-II demonstrated a strong overall reliability (Cronbach's alpha = 0.91) which is higher than the Cronbach's alpha correlation scores reported in most prior studies of nursing staff and nurse managers.

The findings of this study were critical to further evaluate the work environments of nurse managers to meet their responsibilities and to also attain the unit-based and overall goals of the organization. In a landmark, qualitative study of

nurse managers' perceptions of their work environment, Parsons and Stonestreet's (2003) findings emphasized that nurse managers identified the following key, critical factors related to their work-role success: 1) supportive environments that include access to communication and information, 2) empowerment to manage their departments, and 3) participation in critical decision making. These are similar to the environmental characteristics linked to a structurally empowering work environment which are defined by Kanter (1993) as access to opportunity, support, information and resources. Thus, the use of the CWEQ-II in the current study provided a valid and reliable measure of perception of structural empowerment in nurse managers.

The Psychological Empowerment Instrument was used to measure psychological empowerment in the workplace (Sprietzer, 1995). Reliability and validity data for this tool, prior to this study, was based on its use in studies of business managers and healthcare populations including nurses and nurse managers. For the current study, the Psychological Empowerment Instrument demonstrated a strong overall reliability (Cronbach's alpha = 0.97) which is higher than the reported alpha reliability of 0.89 by Laschinger, Finegan and Shamian (2001) who were evaluating the psychological empowerment of Canadian, acute staff nurses.

The findings of this study provide further evaluation and information about the elements related to psychological empowerment which include meaning, competence, self-determination and impact, and how the elements relate to, or are influence by, the healthcare environment. Sprietzer (1995) found that when a manager in a business

environment had access to strategic and operational information in their organization, they reported high levels of the four elements of psychological empowerment which were measured by the Psychological Empowerment Instrument. Laschinger et. al., (2001) extended Spritzer's research and used the Psychological Empowerment Instrument in a study of nurse managers and found that when the nurse manager had access to data regarding their unit's quality and financial information, it was significantly related to the nurse manager's score on the Psychological Empowerment Instrument. In essence, psychological empowerment may be a consequence of a positive work environment. Thus, based on prior research and use of the Psychological Empowerment Instrument in the current study there is sufficient evidence that the tool is a valid and reliable measure of psychological empowerment in nurse managers.

RESULTS

While the current research study examined and reaffirmed the relationship between structural empowerment and psychological empowerment in the nursing literature, the results of the current study examined the relationship of the power of the nurse manager's self-care agency as variable related to either structural empowerment or psychological empowerment or the interaction of both variables.

Self-Care Agency and Perceived Structural Empowerment

Hypothesis 1: There is a positive relationship between Self-Care Agency and Perceived Structural Empowerment

As predicted in the first hypothesis, self-care agency was positively correlated with perceived structural empowerment ($r_s = 0.42$; $p < .0001$). This moderate correlation between self-care agency and structural empowerment supports Kanter's theory that structural factors in the workplace are important conditions for empowering nurse managers to accomplish their work. The current results linking self-care agency and structural empowerment suggest that access to information, support, resources and opportunity (representing structural empowerment) create an environment for nurse managers to activate and maintain their power of self-care agency to accomplish their role-related responsibilities as suggested by Kanter (1993).

Armstrong, Laschinger and Wong (2009) reported similar statistical relationships between structural empowerment and management leadership ability ($r = 0.66$; $p = 0.001$). When nurse managers activate their self-care agency through their leadership ability, an important and direct contribution can be realized. Self-care agency may empower nurses to be accessible, listen to staff's concerns/suggestions and assist the staff to identify opportunities to make improvements regarding their work-practice and environment. Further, managers can ensure nurses have access to,

and understand indicators and measures that improve the effectiveness and delivery of nursing quality care.

Greco, Laschinger and Wong (2006) found that when nurse managers activate their productive and empowering management behaviors in their unit setting, it influences the workplace structures that empower staff nurses to deliver high quality care. The study emphasized the critical role of the nurse manager, and acknowledged the nurse manager's ability to engage in empowering leadership behaviors. Thus, when the structural work environment is sufficient for both the nurse manager and the staff nurse to feel empowered, they work in optimal ways, because they feel engaged and motivated to offer the care the patients need.

Structural work environments increase in importance as the concern for the shortage of nurses interested in management and leadership positions grows. Researchers found that nurse managers can provide the available and appropriate structural environmental factors to foster development and growth future nurse leaders (Laschinger, Almost, Purdy and Kim, 2004). In a parallel manner, findings of the current study provides evidence that when nurse managers have strong S-CA, it can be further developed and operationalized through NM role behaviors when nurtured in a structurally empowered work environment. By extension, highly effective NM may also, through role modeling and planning mentoring of selected and motivated staff nurses, provide the basis for long-term succession planning, the focus of which would be encourage, motivate and groom other nurses in the

organization to pursue managerial roles. The findings of this study also underscore a critical need to ensure that present and future nurse managers be evaluated through objective assessment, for their innate ability to exercise their self-care agency to meet the demands of the managerial role.

Self-Care Agency and Psychological Empowerment

Hypothesis 2: There was a positive relationship between Self-Care Agency and Psychological Empowerment

As predicted in the second hypothesis, there was a significant positive relationship between self-care agency and psychological empowerment. The correlation between self-care agency and psychological empowerment was the lowest correlational value of all correlations explored, ($r_s = 0.25$, $p < 0.05$) and psychological empowerment explained only 6% of the shared variance with self-care agency. Thus, while this relationship may be specific to the study population and should be examined further in future studies, it may also be the result of a spurious relationship between the variables and happened by chance. If spurious, it has little if any value for explaining the variables and more than likely would not be replicated in a similar study. However, replication is suggested to validate whether the relationship is indeed spurious or not.

Parsons and Stonestreet (2003) describe common themes regarding work/life balance, job strain and inability to activate nurse manager power to meet managerial responsibilities that influence today's health care work environment. When nurse

managers have the power to influence their behaviors, are confident in their ability to perform their job, and have autonomy over their work, these psychologically empowering elements will have an impact on important organizational outcomes. Findings of an additional study shows that when psychologically empowered nurse managers view the requirements of their role as congruent with their own values and beliefs, their job has greater meaning (Laschinger, Purdy and Almost, 2007).

The current study identified psychological empowerment as having a small, but measurable correlation with S-CA. This finding reflected the work by Parsons and Stonestreet (2003), as well as Laschinger, Purdy and Almost (2007) that reported psychological empowerment of nurse managers facilitates the link between personal values and work values. The linking of these values in past studies and can strengthen nurse manager motivation to strive toward achieving both personal and organizational goals and should examine within a self-care theoretical perspective in the future.

Perceived Structural Empowerment and Psychological Empowerment

Hypothesis 3: There was a positive relationship between perceived Structural Empowerment and Psychological Empowerment

As predicted in the third hypothesis, there was a statistically significant modest positive relationship between structural empowerment and psychological empowerment ($r_s = 0.35$, $p < 0.001$) where psychological empowerment explains 12% of the variance of structural empowerment. The results in this study indicated that nurse managers felt that structural empowerment in their workplace was likely a

higher level of psychological empowerment. The moderate correlation between structural empowerment and psychological empowerment supports Kanter's (1993) claim that social structural factors, such as sharing of information and availability of resources in the workplace are important conditions for empowering individuals to accomplish their work and achieve the goals of their organization.

The results obtained from a study by Laschinger, Almost, Purdy and Kim, (2004) suggested that when nurse managers perceive a positive structurally empowering environment, they are more likely to feel that their work environments empower them to accomplish their work in meaningful ways, and subsequently experience feelings of psychological empowerment. NMs' perceived structural empowerment has been empirically associated with psychological empowerment in several studies (Laschinger, Finegan, Shamian & Wilk, 2004; Laschinger, Purdy & Almost, 2007). These studies showed that when nurse managers had high structural empowerment scores on an objective measures of the variable, they also had the ability to impact and influence effectiveness at work. The results of both studies support Sprietzer's earlier study (1995), which found that business managers' perception of psychological empowerment were significantly related to a favorable work environment. Access to information about workflow on the manager's unit as well as having access to performance and productivity measures were favorably linked to the organization's external environment, mission, strategy and vision.

The current study showed the correlation and role of factors related to structural empowerment and psychological empowerment which may reflect the influence the nurse manager's feelings of work related confidence and autonomy. It is important to note that the findings that link structural empowerment with psychological empowerment in nurse managers may offer a broader understanding of the empowerment process without consideration of the self-care agency of the nurse manager. This correlation needs to be explored further in future studies.

Research Question

Is there a positive relationship between Self-Care Agency and the interaction of Perceived Structural Empowerment and Psychological Empowerment?

Several previous studies have linked structural empowerment and psychological empowerment. Laschinger (2001) expanded Kanter's model of empowerment to include Sprietzer's concept of psychological empowerment as an outcome of structural empowerment. Outcome measures of Laschinger's study, such as job strain and work satisfaction were linked to the major variables. Results of the study showed, as predicted, that structural empowerment had a direct, positive effect on psychological empowerment ($\beta = .85$).

Additionally, Zhang and Bartol (2010) found, in a study of business leaders and employees, that psychological empowerment influenced both intrinsic motivation and engagement which had a positive influence on creative behavior in the corporate workplace. Wang and Liu's (2013) study of staff nurses in a shared governance work

environment found that psychological empowerment played a mediating role between the work environment, the structured nursing practice model and the degree of nurse work engagement. Overall, the major weakness of each of these studies was the failure to include and measure the contribution of the nurse manager's innate ability to perform managerial role behaviors, which in the current study is measured as self-care agency.

The findings reported in the above studies prompted the researchers attention to the need to expand knowledge about the interaction between the structural and psychological variables and the potential impact of the interaction on nurse behaviors as outcomes, with consideration of nurse manager self-care agency which was absent from the earlier studies. NMs scored high on both structural empowerment and psychological empowerment measures as individual variables, and each of these variables, independently, had a statistically significant, albeit only low to moderate or low correlation, respectively, with self-care agency. In the multivariate linear regression analysis to examine the effect of the interaction of the structural empowerment and psychological empowerment variable on self-care agency, the proportion of shared variance in the ranks of the two variables ($r_s = 0.35$, $p < 0.001$) was 12 %: when the interactive variable was correlated with self-care agency, no statistically significant interaction was observed (95% CI [-0.08, 0.02], $p = 0.23$). Twenty-three percent of the variability in self-care agency was explained by structural empowerment, but when the variable, psychological empowerment, was

interacted with structural empowerment, the resulting interaction variable did not add to the explained variance.

This finding showed that structural empowerment and psychological empowerment impact self-care agency independently. The interaction between self-care agency and psychological empowerment needs to be explored further since some of the underlying elements of each variable appear to be similarly described in the theoretical literature (Orem, 1980, Sprietzer, 1995). Additional research will provide a better understanding of the nature of the self-care agency and psychological empowerment variables and whether possibly, overlapping elements are reflected as simultaneous development of the two variables in a sample of NMs working in a structural empowering organizational environment.

Ancillary Findings

An analysis of the demographic variables for trends in the characteristics of the sample related to self-care agency was performed. Most demographic variables did not show differences: age, gender, level of education, job title, and number of units managing. For race, Asians and Hispanics reported as “Other” in Table 4 were significantly and more highly associated with self-care agency than Whites which is reflected in the significantly higher self-care agency scores (PE = 7.21, 95% CI [0.62, 13.79], $p = 0.035$) of the Others group, when compared to White group.

The finding in the current study, of higher self-care agency scores in the “Other group when compared to the White group was unexpected. Further, the findings differ from those found, in the published work by Yamashita (1998) who

found that exercise of self-care agency scores in Japanese nursing students were higher compared to early childhood education students. Additional possible explanations for these findings in this study is that acculturation of the Asian American and Hispanic participants occurs during the nursing education process, or perhaps acculturation is enhanced in Asian Americans Hispanics while working as a nurse manager. Further, the small number of combined Asian and Hispanics in the “Other” group in this study (n=15, 15%), suggests the need for additional broader exploration to better understand the role of ethnicity on self-care agency.

Although there are no available studies that examined ESCA scores in NMs, one reported study that used a sample of community dwelling elders did show a difference in ESCA scores for White and Hispanic subjects. In Callaghan’s (2006) study of self-care behaviors in elder adults, the author reported a higher total mean score for specific self-care behaviors for Whites (M= 71.8, $p = .03$) than for Hispanics (M = 61.5, $p = .04$), although scores for both groups were significant.

Of interest in the current study is the unexpected finding that self-care agency was only marginally and not significantly, related to an increased number of years’ experience as a nurse manager (PE = 0.32, 95% CI [-0.05, 0.68], $p = 0.096$). This finding is counter to the widely held belief in the idea that a nurse manager’s ability to carry out role behaviors is positively related to the number of years on-the-job. Sixty percent (n = 50) of the nurse managers in the current study were at least 46 years of age; this notable finding indicated that the advancing age of nurse manager

subjects in this study was similar to the advancing age findings (age range = 47 to 51 years) in a study reported for Canadian nurse managers by Laschinger et, al. (2007). The age finding reinforces that there is a critical need for succession planning to ensure future leadership.

The number of direct reports or units managed may impact self-care agency. Laschinger and colleagues (2007) reported very large spans of control, also known as breath of responsibility for NMs. In the current study, the demographic form did not capture the number of staff directly reporting to the NM. However, the nurse manager's responsibilities in terms of the number of departments or units of responsibility were captured. Seventy percent (n= 64) were responsible for one or two units. Further research is needed to ascertain whether the number of direct reports per nurse manager has any impact on the NM's ability to optimally operationalize self-care agency. Additional research will help define the optimal nurse manager work load.

Optional comments by twelve NMs provided interesting data regarding their concern about the amount of time spent at work, their 24/7 unit based responsibilities and their implied sense of the inherent stressful nature of their work role as a nurse manager. Such comments as "work too many long hours", "not enough time to complete all my work" and "a mid-level manager role is very stressful but important" were offered by the nurse managers in response to the final invitation on the

demographic information form to comment about anything they wished to share about their job.

CHAPTER VI

SUMMARY, CONCLUSIONS, RECOMMENDATIONS AND IMPLICATIONS

Summary

This descriptive, correlational study was the first research study to examine the relationships between and among self-care agency, perceived structural empowerment and psychological empowerment in nurse managers in acute care hospitals with Magnet status. Participants completed the Exercise of Self-Care Agency (ECSA) scale for measurement of self-care agency (Kearney & Fleischer, 1979), the Conditions of Work Effectiveness-II (CWEQ-II) to measure perceived structural empowerment (Laschinger, 2001c), and the Psychological Empowerment Instrument to measure the nurse manager's psychological empowerment (Sprietzer, 1995) and a Demographic Information form.

This study was designed to examine nurse manager self-care agency, which is the central concept in Orem's self-care agency theory of nursing (1991); self-care agency is presented as a nurse manager's enabling power or ability to engage in the estimative and productive operations of self-care that govern his or her achievements and goals, which include attainment and continuous use of the specific prerequisite skills and knowledge needed by the nurse manager to perform required role behaviors. Most research on self-care in health care has narrowly examined and focused on the role of the staff nurse and patient behaviors. Explanations about failure

to perform self-care are largely theoretical and little research has examined how nurse managers utilize their abilities to activate their behaviors to achieve their role responsibilities.

Empowerment refers to either structural empowerment which focuses on shared power as a foundation of an organization and its decision making process (Laschinger & Havens, 1996) or psychological empowerment which focuses largely on the self-efficacy of an individual (Sprietzer, 1995). The extent to which nurse managers knowingly engage in self-care agency may be influenced by environmental factors such as structural empowerment or psychological empowerment. The researcher proposed an examination of perceived structural empowerment and psychological empowerment as key variables which may influence the nurse manager's power to exercise self-care agency. A positive relationship between the concepts was expected.

The volunteer, convenience sample consisted of 97 nurse managers who work in acute care hospitals with Magnet status in one mid-Atlantic state. Participants were 25 years of age or older, and employed as nurse managers in their same hospital for the past 12 or more months. Subjects completed the Exercise of Self-Care Agency (ESCA) scale, the Conditions of Work Effectiveness Questionnaire-II (CWEQ-II), the Psychological Empowerment Instrument and a Demographic Information form. One-hundred and forty-six packets, which included the four data collection forms, were distributed at a nurse manager monthly meeting at each of the four hospitals.

The data collection forms were completed at home. The researcher returned to each hospital two times at one week intervals to pick up the packets with the completed forms.

Conclusions

Data analysis for this research study supported the three hypotheses. H₁ revealed a statistically significant positive correlation ($r_s = 0.42$, $p < .0001$) between self-care agency and perceived structural empowerment which explained 18% of the shared variance of self-care agency. It can be concluded that nurse managers with positive perceived structural empowerment activate their enabling power or ability to engage the operations of self-care agency. Strengthening this relationship may ultimately support productive role behaviors in the work environment and ongoing engagement by the nurse managers.

H₂ revealed a weaker, but statistically significant positive relationship ($r_s = 0.25$, $p < 0.05$) between self-care agency and psychological empowerment which explained only 6 % of the shared variance of self-care agency. While psychological empowerment may play a role in self-care agency, it is more likely a spurious correlation which has no real value in explaining self-care agency in nurse managers.

H₃ revealed a positive and statistically significant relationship ($r_s = 0.35$, $p < 0.001$) between structural empowerment and psychological empowerment. When correlated these variables explained 12% of the shared variance of self-care agency. Thus, both are important factors related to the nurse manager in an acute care hospital

when added into the multivariate linear model, psychological empowerment added no further explanatory value to self-care agency.

The research question revealed there was not a statistically significant relationship between self-care agency and the interaction of perceived structural empowerment and psychological empowerment ($p = .23$). This unexpected finding prompts further examination of the interaction of perceived structural empowerment and psychological empowerment. The nurse manager can strive to improve both of these variables independently, but not simultaneously.

The nurse manager provides the critical link between the administrative level leaders and the staff nurses, who provide direct nursing care to patients. The nurse manager role is invaluable for providing and ensuring delivery of quality nursing care by staff and support positive outcomes for patients. When the nurse manager exercises his or her innate ability to operationalize self-care as role-related managerial skills and feels supported, valued and empowered by the organizational structure, the nurse manager is inspired and self-directed in role behaviors. Such inspiration and self-direction motivates the nurse manager to fully exercise role behaviors and optimally participate in work requirements which are also related to the achievement of the organization's goals.

Of interest is another important finding of this study related to the age related demographic data. The literature reports the average age of nurse managers and other nurse leaders to be between 47 and 51 years of age and notes how the advancing age

of the group impacts the profession of nursing and the future role of the nurse manager in an acute care setting (Laschinger, et al. 2006). Our sample revealed similar advancing age related data in that the largest percentage of nurse managers (n = 97) were from 45 through 55 years of age and suggests need prepare for an adequate force of nurse managers and higher level of professional leaders, research findings and need for succession planning to ensure the supply of nursing leaders in the future.

Limitations

There are study limitations that should be considered when interpreting the study's data.

Population: The criteria for inclusion of participants were intentionally specific. Due to the focused sample selection of nurse managers who work in hospitals designated by the Magnet Recognition Program® (Magnet) as having met organizational standards that support excellence in nursing practice, caution should be taken in generalizing findings to nurse managers who do not work in a Magnet recognized acute care facility. American Nurses Credentialing Center (ANCC) designated Magnet facilities are recognized for providing “quality patient care, nursing excellence and innovations in professional nursing practice in addition to strong nursing leadership and management” (Retrieved from <http://nursecredentialing.org/Magnet/ProgramOverview>, February 7, 2014). Some nurses and nurse managers who are professionally motivated choose to work at a

Magnet facility because it offers the supportive infrastructure for a nurse to be empowered and have professional autonomy over her nursing practice.

In addition, the sample in this study scored high on each of the three variable measures. Whether the overall, negatively skewed responses were related to the required Magnet status delimitation for the sample selection needs to be examined in future research. Designing a study with a larger more representative sample of nurse managers from Magnet and non-Magnet hospitals should increase the generalizability of the findings. The analysis used in this study was correlational. While correlations establish a relationship, they do not allow the researcher to establish claims to cause and effect (Tabachnick & Fidell, 2007). Therefore, while one can state that self-care agency and structural empowerment, self-care agency and psychological empowerment, and structural empowerment and psychological empowerment are related variable sets, one cannot determine if an increase in one variable causes an increase in the other. This knowledge gap provides stimulus for further longitudinal research.

Sample: A possible limitation for using a purposeful sampling procedure is that the hospitals and participants were self-selected and not randomized. Of the 140 nurse managers who met the inclusion criteria and who initially agreed to participate in the study, and accepted the research packet for completion at home, 97 (61%) returned fully completed data collection packets. Since research packets distribution and return was done anonymously, there was no mechanism to ascertain which 43

potential participants (39%) did not participate and were they different from participants? The participants were self-selected, which may potentially skew the results of the study. The literature suggests that a response rate of 50% is *adequate* for data analysis, a rate of 60% is *good* and 70% is *very good* (Babbie, 1973), thus the response rate of 61% in this study is considered *good* which underscores the adequacy of the participant sample in this study but better if randomly selected.

As with any convenience sampling methodology, there is an inherent limitation to the generalizability of the findings. Future opportunities to have a larger sample size may be realized through the use of on-line surveys for data collection. On-line surveys with guaranteed anonymity for respondents have advantages over paper and pencil surveys, because the respondents may feel more comfortable responding anonymously to sensitive matters such as their opinion on their organizational environment (Tuten, Urban & Bosnjak, 2000). The on-line surveys are also easier to disseminate than paper and pencil questionnaires, add the ability to send on-line follow-up reminders to complete surveys, and offer the ability to add interactive responses, if appropriate (Truell, 1997).

Hispanics and Asian managers, designated as the “Other” racial group (non-White, non-African American) of participants, scored higher than Whites on self-care agency. This unexpected finding may be due to selection bias an urban or rural setting and cultures within the setting, or may be due to the degree of acculturation of the “Other” nurse manager group in the sample. Since the finding cannot definitively be

explained in this study, differences in self-care agency related to ethnic or racial demographics warrant further examination in future studies.

Data Collection: The timing of the distribution of research packets for this study, which took place during the summer months, may have been a factor in the 61% response rate. Nurse managers, who may have scheduled summer vacation time prior to receiving the request for participation in the study, may have simply discarded the research packet rather than to decline participation, which would have required self-identification. In addition, during vacation time, non-vacationing nurse managers usually cover each other's unit responsibilities, which in-turn increases work-load responsibilities and may extended required time at work. The resulting reduced free-time at home may have lessened the initial motivation of such nurse managers to participate in the study, since it was expected that data collection forms would be completed at home. Also worth consideration, a researcher might increase the response rate by distributing research packets at several staggered times in the same hospital site. This would allow interested, potential participants to preselect the most convenient weeks, within a specific timeframe, when they are most willing to receive and are able to complete the data collection measures for a research study.

In this study, the number of units managed by each nurse manager participant was captured; however, the number of personnel or direct reports was not collected. This was a minor limitation of the study as data were not available to quantify the number of individuals the nurse manager was responsible for in the work place. The

demographic information form could have included a question regarding number of direct reports which Laschinger et al. (2006), noted influences the role of the nurse manager in the work environment. Future studies to examine nurse manager role behaviors should request information about number of direct-reports for nurse manager participants.

Findings in the literature reflect that the majority of the studies regarding empowerment and nurse managers have been conducted in Canada although an increase in similar studies is beginning to emerge in the United States. One strength of the current study is that it is a unique study that examines nurse manager's self-care agency, utilizing the ESCA scale. However, this study was conducted in the United States in a mid-Atlantic state in four hospitals. Although adequate to meet the requirements for calculation of power for this study, the relatively small sample size, when compared to prior Canadian studies, as well as the limited racial and ethnic diversity of the sample suggests limiting the generalizability of the study, particularly with respect to its findings related to racial and ethnic factors.

Clinical Implications

The nursing literature continues to emphasize the nurse manager's role as one of dramatic importance and expansion. This trend of recognition and emphasis on the importance of the nurse manager role continues since the restructuring of nursing departments in acute care hospitals in the 1990's. As a result, work overload (Leiter & Maslach, 2004) and potential burnout in nurse managers (Laschinger et al. 2004)

have been identified as challenges and significant stressors. Health care organizations must find ways to decrease these stressors and ensure the support of a positive work environment in their acute care organizations. In addition, organizations must explore ways to identify the essential innate abilities or power in potential nurse managers. Senior leadership in clinical organizations have a responsibility to ensure nurse managers can activate the role behaviors essential to the creation of an environment that will support the staff nurses to feel engaged and satisfied with their work of providing direct quality care for their patients.

Findings of this study have added another dimension to our understanding of the importance of the nurse manager role behaviors by providing new insight, based upon empirical evidence of an additional link between the work environment and nurse manager self-care agency. This study provides further support for Orem's self-care theory (1995) because findings support Orem's explanation of the requisite expansion of self-care agency estimative and productive operations in nurse leader role behaviors. Findings also add to previous knowledge about the effects of operationalizing self-care agency in professional nurses and provide a theoretical bridge for the examination of nurse manager self-care agency as prerequisite role behaviors for effective leadership in the acute care work environment. The prior, largely theoretical link between role behaviors associated with nurse manager self-care agency and a structurally empowered, acute care work environment have now been empirically supported and add to nursing's body of clinical knowledge that can

improve nurse manager clinical practice. Highly committed nurse managers working in positive, supportive acute care environments are more likely to rise to the challenges of healthcare change. Nurse managers are expected to work to promote quality patient care, while using fewer human, material and financial resources. The increased stressors of diminishing hospital reimbursement and national value based quality and financial initiatives place new challenges on the role of the nurse manager.

The findings of this study suggest that empowerment structures do play an important role in creating a healthy work environment for the nurse manager. Furthermore, nursing leaders who demonstrate management behaviors such as competence and positive use of power are more likely to meet the goals of the organization when they engender the same empowerment in their direct reports (Laschinger & Finegan, 2005). Also, today's organizational leaders must recognize and provide support for nurse managers who seek to achieve the needed and required life balance and enhanced self-care in order to perform their roles effectively over the long term.

Parsons and Stonestreet (2003) found that continuing to create a health promoting organizational environment for nurse managers strengthened a positive work environment. These study findings indicated that nurse managers demonstrate a willingness to stay within an organization that offers a supportive infrastructure to meet their job responsibilities as well as opportunities for professional growth.

However, comprehensive strategies that provide for an empowering work environment must continue to be developed, tested and maintained by health care organizations in order to attract and sustain the future nurse manager workforce. Chief Nursing Officers and nursing leadership, in an effort to recruit and retain competent nurse managers, can provide positive workplace conditions that will allow the nurse managers to grow professionally and contribute to the achievement of the goals of the organization. Job redesign and availability of transparent work structures that will enhance access to the sources of job related empowerment resources, as described by Kanter (1993), are currently within the chief nursing executive's responsibilities. Nurse executives need to engage all levels of organizational leaders to ensure that nurse managers have available and accessible empowerment structures that will create a model work environment in which nurse managers can feel empowered and optimally operationalize their power of self-care agency. Organizational budgets need to create a unique and protected line of funding to create and provide ongoing, state-of-the-art support systems to enhance and maintain a structurally empowering organization which ultimately will generate the motivation and impetus for overall attainment of the larger organizational goals.

Chief Nursing Officers must actively embrace their role responsibility, if necessary, to educate hospital administrators about empowerment structures and actively lobby within their organization for the need and resources to create an empowering work environment where nurse autonomy and shared decision making

can exist and thrive as nurse managers demonstrate that control over nursing practice improves, builds and maintains the overall organizational structure (Tigert & Laschinger, 2004). Provision of patient care is inherently the primary goal of an acute care organization and nurses are the central, core and only legally licensed providers of nursing care of patients in the United States. Thus, organizational support at the highest level that provides for best nursing practices in the acute care setting benefits every aspect of the organization and provides for the organization's goal attainment, albeit often through nursing actions that are not acknowledged.

Recommendations for Future Research

To build on the findings of this study, various possibilities for future research can be delineated. The current study should be replicated with a larger randomized sample size of nurse managers and expanded to include diverse health care settings. In addition, replication of this study would allow some or all of the limitations to be addressed. Further, nurse managers in both Magnet and non-Magnet hospitals should be included to allow for a comparison of the level of self-care agency, structural and psychological empowerment in these different settings.

Another recommendation is to consider conducting a study with similar variables, but with a longitudinal design. A longitudinal analysis with repeated measures would allow an examination of the dynamic nature of the nurse manager's work. Measurements of changes in perception of self-care agency and the working conditions over time could add to the body of knowledge about the impact of these

conditions on unit based operations and ultimately patient care outcomes. Other recommendations consist of qualitatively exploring nurse manager's power of self-care agency and an analysis of their work environment and structures directly related to quality care indicators and organizational success. This might also provide hints as to cause and effect between and among the variables.

Lastly, it is recommended that the information gained from this research study be shared with nurse managers and nurse leaders through publications and presentations at nursing organizations at the local, state and national levels. Providing evidence-based research to guide professional development will both improve and strengthen the nursing profession.

Conclusion

In today's dramatically challenging and ever-restructuring healthcare environments, changes in the demands of nurse manager work are not likely, nor is it likely that the nurse manager role will be made less complex. This research has contributed to the body of nursing knowledge by examining and testing the components of an existing nursing theory in a new nurse manager population. It helps to define positive work environments and traits which support the productive nature of nurse manager behavior and may ultimately support the larger organizational goals.

Self-care agency, structural empowerment and psychological empowerment are interrelated and structural empowerment increases self-care agency independent

of psychological empowerment. Structural empowerment and self-care agency may play an important role in alleviating the impending shortage of nurse managers by increasing the likelihood of retaining current nurse managers. Additionally, implementing strategies to strengthen positive environments in current systems and self-care agency may motivate and attract our future nurse managers from the ranks of the bedside nurse.

Dissemination of findings of this research, and education about the potential importance of self-care agency, structural empowerment and psychological empowerment for nurse managers, will provide them with the tools necessary for professional growth. Further, this research is a stepping stone for the development and testing of practical steps to improve both managerial skills and organizational conditions which improve the quality of patient care. For example, the development of a new tool or use of the current ESCA scale for evaluation of candidate's inherent self-care agency into the candidate's potential for a nurse manager position. Such test results can provide a baseline hiring score that will offer preliminary insight into a candidate's potential for operationalizing nurse manager's role behaviors if hired as well as knowledge of the nurse manager's influence on a unit and department in empowerment environments in acute care settings.

This research has provided new knowledge about self-care agency, perceived structural empowerment and psychological empowerment in a population of nurse managers in acute-care settings. Similar to the findings in previous studies, these

results trigger further interest in understanding the value of self-care agency.

Additional questions, specific relationships and nuances of the nurse manager population provide a focus for future studies. Thus, implications for the findings include the need for additional research and dissemination of the current findings.

The formation and testing of interventions to promote self-care agency and empower managers to provide improved quality of patient care is an important next step.

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Appendix A

Guide for Dialogue between Interested CNO and Nurse Researcher

General Introductory Information:

My name is Patricia O'Keefe. I am a doctoral candidate at Seton Hall University College of Nursing, in South Orange, New Jersey, where I have developed a dissertation proposal to examine the relationships between and among role behaviors and work environments in Nurse Managers of units/departments in hospitals which have achieved ANCC Magnet status. This study is in a partial fulfillment of the requirements for my Ph.D. in Nursing. I would like to invite your nurse managers to participate in my research study. In order to participate in this study, the NMs must be (a) currently employed in a nurse manager position 12 months or longer, (b) 25 years of age or older, and (c) responsible for one or more units or departments with twenty four hour, seven days a week operational responsibility.

Closing the Dialogue:

- Thank the CNO for her or his interest in participating in the nurse research study.
- Request input on the most efficient process to access the institution's nurse managers and whether nurse managers have monthly meeting
- If there is a monthly nurse manager meeting, request the name and contact information of the chairperson of the nurse manager group

- Discuss with CNO the best way to contact this person regarding setting up a meeting to request time on the nurse manager's meeting agenda.
- Answer any questions the CNO may have regarding the study.

Appendix B

Oral Script for Nurse Manager Meeting:

- Thank you for agreeing to meet with me and allowing me the opportunity to explain the purpose of my research study and discuss your possible participation in this quantitative study.
- I am pursuing my PhD at the Seton Hall University College of Nursing. In order to partially fulfill the requirements for my degree, I am conducting a research study to examine how the role of the nurse manager is operationalized in an acute care hospital that has achieved Magnet status.
- In order to participate in the study, you must be (a) working full-time in a nurse manager position in the same department/unit for at least 12 months, (b) fully responsible for operation of the unit(s) with twenty four hour, seven days a week responsibility, and (c) be 25 years of age or older.

The large, unsealed manila envelope which I am now distributing to each of you contains the research documents, all of which I will review with you in detail today. I ask that you do not open the manila envelope until you are able to begin completing the research documents because, according to my data collection protocol, the research documents were inserted into a manila envelope in a specific order which must be maintained until you are ready to begin your individual responses. Today, I will use the contents of a sample manila envelope to explain each of the documents to you. Everything I will say to you today about your potential participation in my research study is also contained in *The Letter of Solicitation* which is contained in the envelope and can be used as a reference when you begin reviewing the contents of the manila envelope.

- The manila envelope contains a complete set of research documents which include the following:
 - Letter of Solicitation for overall testing procedure
 - Demographic Information Form
 - Three paper and pencil, self-report questionnaires that measure the variables related to the study

All the documents just mentioned have a unique numerical ID code in the upper left corner which matches the number on the envelope; you have in your hands. This ID code is used in statistical analysis of the data and assures that your responses will be recorded anonymously.

I am asking that you complete all the materials in the packet at home, rather than at work where it is usually difficult to have enough undisturbed time to adequately complete the task. At a convenient time at home, I ask that you find a private place where you can sit, undisturbed and complete the contents of the research packet.

- The first document you should read is the *Letter of Solicitation* which explains the study and provides details about the consent procedure and how to complete, and then return the research materials in the packet. Note, the Letter of Solicitation does not contain a numerical code in the left upper corner, as do all other documents that follow.
- The second document is a Demographic Information form which asks about your job description and responsibilities, age, education and job experiences as a nurse.

- The remaining three documents are the paper and pencil questionnaires that measure the study variables. Each questionnaire contains its own response directions.

It would be ideal if you could complete all the questionnaires the packet in one seating. It usually takes 30 minutes to complete all documents in one seating. If you need to split your time, I ask that you fully complete any single document, before taking a break. After you have completed all the research materials in the packet, I ask that you place them into the original, numerically coded, manila envelope which you should then seal before returning.

You should return your sealed manila envelope to the Nursing Office where I have installed one secured and labeled box. You should place your sealed manila envelopes with the 4 data collection forms into the yellow box labeled “Completed Research Questionnaires”. All collected data will remain strictly confidential and you are not being asked to report whether you have returned your research material or not.

If you have any questions regarding your rights as a research participant please call the Seton Hall University IRB Director, Dr Mary Ruzicka, using the contact telephone number or mailing information noted on the Informed Consent form. If you have any questions regarding this study or the research process, please call me, Patricia O’Keefe, or my dissertation committee chairperson, Dr Mary

Anne McDermott, at the Seton Hall University, College of Nursing using the contact telephone numbers and mailing information written on the consent form.

Appendix C

Letter of Solicitation

Researcher and Affiliation

The researcher, Patricia O’Keefe, MSN, RN, NE-BC is a doctoral candidate at the College of Nursing, Seton Hall University. She is conducting a study entitled: *Relationships Between and Among the Power of Self-Care Agency, Perceived Structured Empowerment, and Psychological Empowerment in Nurse Managers in an Acute Care Hospital with Magnet Designation* as part of her requirements for the PhD.

Purpose:

The purpose of this study is to better understand nurse manager’s power of self-care agency and its relationship to perceived structural empowerment and psychological empowerment who work in an acute care hospital with Magnet designation. Currently as a nurse manager, you and your staff often work in organizational environments that are stressful and full of uncertainty because of a rapidly changing healthcare system.

As a nurse manager, you are in a position that require meeting the organizational goals as well as to provide leadership and resources to your staff. There appears to be agreement that optimal managerial role behaviors are essential to facilitate successful job performance and satisfaction by the manager. Role behaviors of managers can influence the job performance of their staff as well. Limited attention has been paid to the examination of these abilities that you possess in order to work successfully in this complex healthcare environment. This is a study designed to examine the relationships between and among nurse manager’s self-care agency, perceived structural empowerment and psychological empowerment.

You have been identified as a possible participant because you are a nurse manager or equivalent role who is responsible for units/departments for 24/7 in an acute care hospital. You will have been in this role in your organization for 12 months and are minimally 25 years of age.

Duration:

The estimated time for your participation in this research study will be approximately 30 minutes to complete the demographic information sheet and the 3 questionnaires.

Procedures:

This procedure will entail completing 4 pencil and paper surveys to be completed in a calm quiet place. The surveys include one demographic form and three questionnaires.

Questionnaires:

- Demographic Information Questionnaire asks for information about study participants and includes questions about your gender, age, number of years as a nurse manager, number of units you manage, number of years for nurse education and nursing degrees earned.
- The first questionnaire titled the Exercise for Self Care Agency asks how you assess yourself in terms of the degree to which you take care of your health needs. After reading each of the 43 statements such as “I take pride in doing the things I need to do in order to remain healthy” you are asked to blacken one of the five response boxes to indicate that the statement is, or is not characteristic of you on a range of five options from Very Characteristic to Very Uncharacteristic.
- The second questionnaire titled Conditions of Work Effectiveness Questionnaire II (CWEQ-II) asks about your perception of your present work environment. After reading 4 main questions you are asked to select the response option under each main question that best describes your present work environment. An example of a main question is related to availability of job “Resources” and you are asked to rate *available time* according to whether you have – None, Some, or A lot of available time
- The third questionnaire titled Psychological Empowerment Instrument asks about your self-orientation related to your work role. After reading each of the 16 statements, you are asked to select one of the seven response options that best indicate whether you agree or disagree with each statement. An example of a Statement is “I am confident about my ability to do my job” and you are asked to select a response from 7 options ranging from Very Strongly Agree to Very Strongly Disagree.

You will return the completed questionnaires by placing them back into the manila envelope and seal it. Next you need to place the completed questionnaires in the Nursing Education Office into a secure yellow box labeled “Returned Research Questionnaires”.

Voluntary Nature of Participation:

Participation in this study is completely voluntary and refusal to participate will involve no penalty of loss of benefits to which you are entitled. You do not have to participate in this study and may withdraw from the study at any time. If you change your mind after beginning to fill out the research documents or if you choose not to participate in the study, it will not impact your employment or compensation and will not be known to anyone.

Anonymity:

You may fill out the anonymous research questionnaires in a private location and after you return your research questionnaires, your responses cannot at any time be directly linked to your name. There is no identifying data that will link your name with your survey. No one will ever be able to link the data to any individual. When the results of the research are discussed at professional conferences or published in academic journals, only the aggregate, anonymous information will be included.

Confidentiality:

Your participation will be kept confidential. All research questionnaires for each hospital will be numerically coded. After completing the Demographic Information form and the three questionnaires, all of which contain hospital numeric ID codes you will place them into the original coded manila envelope and seal it and place in the manila envelope into the secured yellow box labeled "Completed Research Questionnaires." in the Nursing Education Office. The boxes will be picked up by the researcher on the 7th working day after you receive the research material. If you decide not to participate in the research study, we ask that you place the empty questionnaires back in the manila envelope and place in the secured yellow box labeled "Completed Research Questionnaires" as well. Although the researcher will maintain a master list matching which ID codes were distributed to each study hospital, there is no way the ID codes can be matched with the names. The data from the questionnaires will be entered into a specific study data base maintained by the researcher on a password protected USB Memory key maintained in a locked draw in the researcher home office. The data will be confidential. All measures will be taken to ensure subjects confidentiality and under no circumstances, will any identifying data may be used or disclosed without the subjects' expressed consent.

Records: All records will be kept confidential. The only person to have access to the research records will be the researcher.

Risk or Discomforts:

There are no known risks for you to participate in this study. It is possible you might have some unpleasant thoughts about your work raised when you read

some of the questions. You may choose to not answer any questions that cause discomfort and, in addition, you may stop completing the questionnaires at any point. The researcher, the Dissertation Chairperson and the Director of the SHU IRB Office can be contacted at the numbers provided below if you have additional questions or concerns about this research study.

Benefits of the Study:

There are no direct benefits for you if you participate but the results of this research study may provide information that can be used in the future to design better work environments for nurse managers.

Payment or other Remuneration for Participating in this Study? There is no payment or remuneration to participating in this study.

Contact Information:

If you have any questions or concerns about your participation in this research study you may contact the Principal Investigator (PI), Patricia O'Keefe MSN, RN, at 973-971-4759. You may also contact the Principal Investigator's Dissertation (Research Faculty Advisor) Chairperson, Mary Anne McDermott, PhD RN at 973-761-9266.

If you have any questions regarding your rights as a research subject in this study, you should contact the Institutional Review Board Office Director, Mary Ruzicka, PhD, Professor at Seton Hall University at IRB@shu.edu or at 973-313-6314.

By participating in this research study and submitting the completed data, it is implying consent by the volunteer participant and will not need a separate signed consent form completed.

Appendix D

DEMOGRAPHIC INFORMATION

INSTRUCTIONS:

Your answers to the questions on this form are an important part of the study, so I am asking you to answer all questions as completely as possible. The information you provide is confidential and anonymous. You **SHOULD NOT** write your name on this form.

Please check or fill in the appropriate response as indicated by each question below. Please start with Question #2.

- 2. Is your job description that of a nurse manager with 24 hours / 7 days a week responsibility for inpatient unit or units?**

_____ Yes
 _____ No

- 3. How many years and months have you been working as a nurse manager in your current dept/unit?**

_____ Years
 _____ Months

- 4. The title of your position in nursing management?**

_____ First-Line Manager
 _____ Unit Manager
 _____ Director
 _____ Associate Director
 _____ Assistant Director
 _____ Other title (please specific)

- 5. Number of inpatients units for which you are responsible:**

_____ 1 unit
 _____ 2 units
 _____ 3 units
 _____ 4 or more units

6. Gender:

Male
 Female

7. Age in Years**8. Race:**

Caucasian / White
 African American / Black
 Asian / Pacific Rim
 Hispanic / Latin
 Other (please specify)

9. Highest level degree of nursing education:

Diploma
 AD
 BSN
 MS/MSN
 MA Nursing Education.
 PhD
 EdD
 DNP

10. Highest level degree of non-nursing education:

Bachelor's
 Master's
 Doctorate

11. If you have a non-nursing degree, please write in other degree(s):

12. Total number of years working as a professional nurse (RN)

- a. Number of years: full-time?
b. Number of years: part-time?

13. Number of years employed in current institution?

14. ____ Number of years employed as a nurse manager in current hospital?

15. ____ Number of years as a Nurse Manager

16. Do you have specialty certification?

_____ Yes

_____ No

If yes, please list all certifications (write in words for clear identification):

17. If you would like to share anything else about your management responsibilities or work environment, please write your ideas below.

Thank You

Appendix E

Exercise for Self Care Agency

DIRECTIONS: This is not a test. It has no right or wrong answers. This questionnaire is to ask how you assess yourself in terms of the degree to which you take care of your health needs. You should read each statement which is followed by five options. Blacken the letter box which best describes you according to the options provided (very characteristic, somewhat characteristic, no opinion, somewhat uncharacteristic or very uncharacteristic).

		<u>Very Characteristic</u>	<u>Somewhat Characteristic</u>	<u>No Opinion</u>	<u>Somewhat Uncharacteristic</u>	<u>Very Uncharacteristic</u>
1.	I would gladly give up some of my set ways if it meant improving my health.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	I like myself.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	I often feel that I lack the energy to care of my health needs the way I would like to.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	I know how to get the facts I need when my health feels weakened.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	I take pride in doing the things I need to do in order to remain healthy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	I tend to neglect my personal needs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	I know my strong points.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	I seek help when unable to care for myself.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	I enjoy starting new projects.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	I often put off doing things that I know are good for me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	I usually try home remedies that have Worked for me in the past rather than going to see a doctor or nurse.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.	I make my own decisions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.	I perform certain activities to keep me from getting sick.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.	I strive to better myself.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.	I eat balanced meals.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16.	I complain a lot about the things that bother me without doing much about them	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17.	I look for better ways to look after my health.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18.	I expect to reach peak wellness.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19.	When I have a problem, I usually want an expert to tell me what to do.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20.	I deserve all the time and care it takes to maintain my health.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21.	I follow through on my decisions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

		<u>Very Characteristic</u>	<u>Somewhat Characteristic</u>	<u>No Opinion</u>	<u>Somewhat Uncharacteristic</u>	<u>Very Uncharacteristic</u>
22	I have no interest in learning about my body and how it functions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23	If I am not good to myself, I believe I cannot be good for anyone else.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24	I understand my body and how it functions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25	I rarely carry out the resolutions I make concerning my health.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26	I am a good friend to myself.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27	I take good care of myself.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28	Health promotion is a chance thing for me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29	I have a planned program for rest and exercise.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30	I am interested in learning about various disease processes and how they affect me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31	Life is a joy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32	I do not contribute to my family's functioning.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33	I take responsibility for my own actions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34	I have little to contribute to my family's functioning.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35	I can usually tell that I am coming down with something days before I get sick.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36	Over the years I have noticed the things to do that make me feel better.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37	I know what foods to eat and keep me healthy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38	I am interested in learning all that I can about my body and the way it functions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
39	Sometimes when I feel sick I ignore the feeling and hope it goes away.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40	I seek information to care for myself.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41	I feel I am a valuable member of my family.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
42	I remember when I had my last health check and return on time for my next.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43	I understand myself and my needs pretty well.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Appendix F

Conditions of Work Effectiveness Toll (CWEII)

**Please circle the appropriate response to the questions below
regarding your present work environment....**

HOW MUCH OF EACH KIND OF OPPORTUNITY DO YOU HAVE IN YOUR
PRESENT JOB?

	None	Some	A Lot		
1. Challenging work	1	2	3	4	5
2. The chance to gain new skills and knowledge on the job.	1	2	3	4	5
3. Tasks that use all of your own skills and knowledge.	1	2	3	4	5

HOW MUCH ACCESS TO INFORMATION DO YOU HAVE IN YOUR
PRESENT JOB?

	No Knowledge	Some Knowledge	A lot Knowledge		
1. The current state of the hospital.	1	2	3	4	5
2. The values of top management.	1	2	3	4	5
3. The goals of top management	1	2	3	4	5

HOW MUCH ACCESS TO SUPPORT DO YOU HAVE IN YOUR PRESENT JOB?

	None	Some	A Lot		
1. Specific information about things you do well.	1	2	3	4	5
2. Specific comments about things you could improve.	1	2	3	4	5
3. Helpful hints or problem solving advice.	1	2	3	4	5

HOW MUCH ACCESS TO RESOURCES DO YOU HAVE IN YOUR PRESENT JOB?

	None	Some	A Lot		
1. Time available to do necessary paperwork.	1	2	3	4	5
2. Time available to accomplish job requirements.	1	2	3	4	5

	Strongly Disagree			Strongly Agree	
1. Overall, my current work environment empowers me to accomplish my work in an effective environment.	1	2	3	4	5
2. Overall, I consider my workplace to be an empowering environment.	1	2	3	4	5

Appendix G

Psychological Empowerment Instrument

Listed below are a number of self-orientations that people may have with regard to their work role. Please read each one individually and then, based on the following scale of 7 responses, indicate the extent to which you agree or disagree that the response describes your self-orientations and write the letter of your response choice on the line that precedes each self-orientation.

- A. Very Strongly Disagree
- B. Strongly Disagree
- C. Disagree
- D. Neutral
- E. Agree
- F. Strongly Agree
- G. Very Strongly Agree

1. ___ I am confident about my ability to do my job.
2. ___ The work that I do is important to me.
3. ___ I have significant autonomy in determining how I do my job.
4. ___ My impact on what happens in my department is large.
5. ___ My job activities are personally meaningful to me.
6. ___ I have a great deal of control over what happens in my department.

(Continued)

- A. Very Strongly Disagree
- B. Strongly Disagree
- C. Disagree
- D. Neutral
- E. Agree
- F. Strongly Agree
- G. Very Strongly Agree

7. ___ My job is well within the scope of my abilities.
8. ___ I have considerable opportunity for independence and freedom in how I do my job.
9. ___ I have mastered the skills necessary for my job.
10. ___ My opinion counts in departmental decision-making.
11. ___ The work I do is meaningful to me.
12. ___ I have significant influence over what happens in my department.
13. ___ I am self-assured about my capabilities to perform my work activities.
14. ___ I have a chance to use personal initiative in carrying out my work.