

NURSES' JOB SATISFACTION IN THE WORK ENVIRONMENT

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Abstract

RESEARCH PAPER: Nurses' Job Satisfaction in the Work Environment

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One of the most important factors in nurse job satisfaction is the work environment. The purpose of this cross-sectional study is to describe direct and indirect relationships among the practice environment, nurse-physician communications, and nurses' job satisfaction. This is a replication of Manojlovich's (2005) study. The framework is Irvine, Sidani, and McGillis-Hall's (1998) Nursing Role Effectiveness Model. The study will be conducted at the Community Hospital Network in Indiana. The anticipated sample is 200 Registered Nurses working in Intensive Care Units throughout the Network. The Practice Environment Scale of the Nursing Work Index (PES-NWI) will measure job satisfaction in regards to the work environment. Nurse job satisfaction will be measured using both The Practice Environment Scale of the Nursing Work Index (PES-NWI) and The Index of Work Satisfaction. The ICU Nurse-Physician questionnaire will measure variables affecting nurse-physician communications. The findings will provide information for nurse managers that will improve nurse retention based on improved nurse-physician relationships.

Chapter I

Introduction and Background

Introduction

According to the American Hospital Association, healthcare administrators are dealing with complex healthcare issues such as access to care for all patients, maintaining high standards, quality, and safety (AHA, 2010). The National Council of State Boards of Nursing (NCSBN) (2009) stated that healthcare in the United States (U.S.) is more complex than it has ever been. Nurses are caring for older, sicker, patients, and a more diverse population that requires more sophisticated technology. With this change comes the need for a greater sense of systems thinking (NCSBN, 2009). Administrators are striving to keep up with state-of-the-art technology. Health care administrators must find ways to blend complex technology with a supportive work environment.

Nursing shortages add to complex problems for hospitals administrators as nurse managers strive to provide high quality patient outcomes. Shortages lead to increased work demands for nurses. According to the American Association of Colleges of Nursing, the increased work demands lead to stress and turnover (AACN, 2010). Additionally, the increase in work demands on nurses can lead to a decrease in the quality of patient outcomes and patient satisfaction (Agency for Healthcare & Quality of Patient Care, 2007). With pay-for-performance on the horizon, a decrease in patient satisfaction

adds to the complex issues administrators must analyze, incorporate, and disseminate into the work environment.

According to a report by the American Hospital Association (July 2007), the national vacancy rate of registered nurses was 8.1%. This percentage equated to approximately 116,000 vacant RN positions throughout the U. S. Despite a recent increase in the number of employed RNs, Buerhaus and associates (2009) predicted a nursing shortage of approximately 260,000 registered nurses by 2025.

The nursing shortage leads to increased nurse-to-patient ratios. Aiken, Clarke, Sloane, Sochalski, and Silber (2002) reported a greater sense of job dissatisfaction when higher nurse to patient ratios exist. Aiken et al. (2002) surveyed 10,184 registered nurses from 168 hospitals regarding surgical patient outcomes, demographic characteristics, work history, workload, job satisfaction, and feelings of job related burnout. Findings indicated that an increase of one patient per nurse/per shift increased nurse burnout and job dissatisfaction by 23% and 15% respectively. Nurses working in a hospital with a nurse-to-patient ratio of 1:8 were twice as likely to experience high emotional burnout, and twice as likely to be dissatisfied with the job as nurses that were working in a hospital with a nurse-to-patient ratio of 1:4. Other findings suggested that 43% of nurses experiencing high levels of burnout and job dissatisfaction intended to leave the job within the next 12 months (Aiken et al., 2002). The findings suggested nurse administrators need to decrease nurse-to-patient ratios, and nurse burnout by improving the work environment.

Nurse turnover due to low job satisfaction is costly to healthcare organizations. Atencio, Cohen, and Gorenberg (2003) estimated the cost of replacing a single

medical/surgical nurse at \$92,442, with specialty areas reaching replacement costs at \$145,000. In 2009, Kovner, Brewer, Greene, and Fairchild identified replacement costs for a single nurse at 1.2 to 1.3 times an annual nurse's salary, or up to 5% of a hospital's budget for yearly turnover costs (Kovner et al., 2009). The Robert Wood Johnson Foundation's project, *Wisdom at work: Retaining experienced nurses* (2009), reported national replacement costs ranging from \$22,000 to \$64,000. Turnover figures vary, however administrators agree that high nurse turnover is financially draining on a health care organization.

Creating a positive nurse work environment presents multiple challenges for nurse administrators. Studies show that nurse job satisfaction is related to a positive work environment (Atencio et al., 2003; Manojlovich, 2005; Manojlovich & Antonakos, 2008; Manojlovich & DeCicco, 2007; Rosenstein, 2002; Tabak & Koprak, 2007; Wilkinson & Hite, 2001). Many studies have identified multiple factors that influence nurses' job satisfaction (Devine, 1978; Hockelman, 1975; Sheard, 1980). However, limited research has been done on the nurse-physician relationship and the impact this relationship has on nurses' job satisfaction. This study will address this issue.

Background and Significance

The nurse-physician relationship has been studied since the 1970s. Hockelman (1975) discussed the need for collaboration among nurses and physicians. However, the collaboration was viewed from the standpoint of problems that prevent good relationships from occurring. In 1978, Devine conducted a study focusing on the impact that physicians' interactions have on nurses' perceptions of self (Devine, 1978). Devine used interviews, observations, and journalings of 22 nurses and 11 physicians, on two units of

a pediatric hospital. One unit had only physicians and nurses, whereas the second unit had interns, residents, and medical students as well. Devine found that on the unit that had “buffer roles” (the interns, residents, etc), the nurses demonstrated a lower incidence of conflict with physicians, and a higher level of satisfaction (Devine, 1978).

In the 1980s, studies examined how nurses’ and physicians’ interactions were impacted by the roles and functions of nurses and physicians. Sheard (1980) identified a clash of roles and misunderstandings of responsibilities as a source of conflict between nurses and physicians. Sheard presented work dimensions that contributed to confusion. For example, Sheard postulated that commitments and time frames related to roles differ between the groups. A physician has a patient for a lifetime, whereas the nurse has the patient for an 8 hour period. Sheard concluded that as long as nurses’ and physicians’ roles differ conflicts will continue to exist (Sheard, 1980).

Morgan and McCann (1983) discussed the conflicts between nurses and physicians, and compared conflicts related to the roles of men and women. In Western cultures, men have been stereotyped as strong and dominant, whereas women have been seen as subservient. Morgan and McCann postulated that role character traits have carried over into the nurse-physician relationship since the majority of nurses are women, and the majority of physicians were men (Morgan & McCann, 1983).

Research in the 90s on nurse-physician relationships focused on power issues between nurses and physicians, and how power impacts nurse-physician relationships. Chandler (1992) compared the responses of 56 staff nurses who were asked to describe situations in which nurses were empowered, and situations in which nurses were

powerless. Findings showed that 52% of respondents were powerless in situations involving the nurse-physician relationship.

Peret (1993) examined nurses' views of the nurse-physician relationship in a university medical center. Findings showed that nurses viewed nurses and physicians working as a team. Conclusions were that nurses are respected when physicians seek, listen to, and act on nursing recommendations. The results indicated there is a new paradigm in the healthcare environment with nurse participation in medical decision-making based on nurses' knowledge.

It was not until the 21st century that researchers began addressing the impact of nurse-physician relationships on nurses' job satisfaction. Rosenstein was one of the first researchers to study the direct relationship between nurses and physicians and nurse job satisfaction. In 2002, researchers at the VHA West Coast designed a survey to identify the correlations among nurse-physician relationships, disruptive physician behavior, the organization's response to disruptive behavior, and the impact on nurse satisfaction, morale, and retention. The findings showed that disruptive physician behavior is very important (8.15 on a 1-10 scale with 10 = very important) to a nurses' job satisfaction level (Rosenstein, 2002). Therefore it is important to identify causes of disruptive behavior, decrease barriers to reporting disruptive physicians' behavior, and focus on improving nurse-physician communication and collaboration to enhance nurses' work environments (Rosenstein, 2002).

Manojlovich (2005) linked the practice environment to nurses' job satisfaction based on nurse-physician communication. Findings indicated the nurses' practice environment and nurse-physician communications were strong predictors of job

satisfaction. Nurses' perceptions of ability to communicate directly with physicians impacts job satisfaction (Manojlovich, 2005). The nurse-physician relationship, specifically communications, is important to the work environment.

Based on the conclusions of Manojlovich's study, further study is needed to identify aspects of the nurse-physician relationship that impact the nurses' work environment and level of job satisfaction. Results from this study will provide nurse administrators with additional information about the impact of nurse-physician relationships, nurse job satisfaction, and nurse retention.

Problem

The practice environment in the hospital influences nurse job satisfaction and nurse retention. Nurse characteristics, communications, and nurse-physician relationships are very important factors in nurse job satisfaction. The Nursing Role Effectiveness Model (NREM) proposes that nurse characteristics and the work environment are predictors of nurse-physician communications and nurses' job satisfaction (Manojlovich, 2005).

Purpose

The purpose of this study is to describe direct and indirect relationships in the hospital practice environment, nurse-physician communications, and nurse job satisfaction, based on the NREM. This study is a modified replication of Manojlovich's (2005) study.

Research Question

1. Is there a relationship among hospital environment, nurse characteristics, and nurses' job satisfaction?
2. Is there a relationship between nurse-physician communication and nurses' job satisfaction?

Theoretical Framework

The framework is the Nursing Role Effectiveness Model (NREM) (Irvine, Sidani, & McGillis Hall, 1998). The NREM identifies nurses' contributions based on three roles nurses assume in healthcare: independent, dependent, and interdependent. Irvine et al. (1998) identified a set of structural variables that affect nurses' ability to engage in a variety of roles. The variables consist of nurse structural variables (experience level, knowledge and skill level, and psychosocial variables), patient structural variables (patient age, severity of illness, and co-morbidities), and organizational variables (staffing levels, staff mix, and leadership).

Irvine et al. (1998) proposed relationships exist among the structural variables, nurses' roles, and patient outcomes (NREM). This framework is appropriate for this study because the interrelationships among nurses' roles, identified variables, and patient and environmental outcomes are co-dependent.

Definition of Terms

Conceptual: Nurse-physician communication.

Nurse-physician communication was defined by Manojlovich (2005) as a process by which nurses exchange information in the context of professional practice in the work environment.

Operational: Nurse-physician communication.

Nurse-physician communication will be measured using the ICU Nurse-Physician Questionnaire (Shortell et al., 1991, as cited in Manojlovich, 2005).

Conceptual: Organizational environment.

Organizational environment refers to organizational attributes in the work environment that are valued by nurses as important to the support of professional practice such as autonomy, empowerment, and opportunity for professional growth (Flynn, Carryer, & Bridge, 2005).

Operational: Organizational environment.

Organizational environment will be measured using the Conditions for Work Effectiveness Questionnaire-II (CWEQ-II) (Laschinger et al., 2001, as cited in Manojlovich, 2005) and the Practice Environment Scale of the Nursing Work Index (PES-NWI) (Lake, 2002, as cited in Manojlovich, 2005).

Conceptual: Nurse job satisfaction.

Nurse job satisfaction includes a cognitive component, perceptions that the job is able to fulfill personal needs, and an affective component, feelings and attitudes regarding a job and its content (Wilson, Squires, Widger, Cranley, & Tourangeau, 2008).

Operational: Nurse job satisfaction.

Nurse job satisfaction will be measured using the Index of Work Satisfaction (McGillis-Hall, 2002, as cited in Manojlovich, 2005).

Conceptual: Nurse characteristics.

Nurse characteristics are attributes of the nursing staff consisting of age, sex, ethnicity, educational level, years of experience, years in current institution, status (full-time, part-time, or contingent), and type of position (Manojlovich, 2005).

Operational: Nurse characteristics.

Nurse characteristics will be measured using a demographic questionnaire developed by the Manojlovich (Manojlovich, 2005).

Limitations

The study is limited by using one geographic area and one hospital system.

Assumptions

Irvine's (1998) Nursing Role Effectiveness Model is based on the assumptions that both direct and indirect relationships exist between nurse-physician communication and nurses' job satisfaction in the practice environment. Both nurse characteristics and the organizational work environment directly affect nurses' perceptions of nurse-physician communication effectiveness and nurses' job satisfaction. Nurses' characteristics and work environments indirectly affect nurses' job satisfaction through nurse-physician communication.

Summary

Studies indicate the nurse-physician relationships, specifically communications, positively impact nurses' perceptions of the work environment and job satisfaction, a factor important to nurse retention. The purpose of this study is to investigate direct and indirect relationships among the practice environment, nurse-physician communication, and job satisfaction. The Nursing Role Effectiveness Model will be used as the

framework for this research study. This study is a replication of Manojlovich's (2005) study.

Chapter II

Review of Literature

Introduction

Two important aspects of nurse retention are the nurses' work environment and job satisfaction. One factor that is receiving increased attention to nurse retention is the relationship between nurses and physicians. Historically, physicians have held the power in regards to patient care allowing little nurse autonomy. However, in the era of the nursing shortage, and the need for increased quality, it is important for nurse managers to foster a positive practice environment and collaboration that emphasizes open communications. It has not been established what the dynamics are in the relationship between the nurse-physician relationships and job satisfaction in the practice environment (Manojlovich, 2005).

Purpose

The purpose of this study is to describe direct and indirect relationships in the hospital practice environment, nurse-physician communications, and nurse job satisfaction, based on the NREM. This is a modified replication of Manojlovich's (2005) study.

Organization of Literature

The literature review to support this study is divided into five sections: (a) conceptual model; (b) nurses' perception of work environment; (c) physicians' expectations of nurses; and (d) nurse-physician communications.

Conceptual Model

The Nursing Role Effectiveness Model (NREM) is the framework for this study (Irvine et al., 1998). The model was based on the structure-process-outcomes model of quality care. The NREM identifies nurses' contributions in terms of three key roles nurses assume in health care: (a) independent role; (b) dependent role; and (c) interdependent role (Irvine et al., 1998). Independent roles were defined as functions and responsibilities in which only nurses can be held accountable, such as assessments, decision making, intervention, and evaluation of care. Dependent roles were defined as functions and responsibilities associated with the completion of medical orders, such as a specific treatment or medication. Interdependent roles were defined as activities and functions in which nurses rely on other providers for either partial or total assistance in providing care (Irvine-Doran, Sidani, Keatings, & Doidge, 2002). Irvine et al. (1998) used examples from the literature on nursing sensitive outcomes to illustrate how patient outcomes were linked to the roles.

The authors also identified a set of structural variables that affect a nurse's capacity to engage in the functionality of the role (Irvine et al., 1998). Irvine et al. postulated that the variables also affect the relationship between the nursing process and patient outcomes. The variables were divided into three categories: (a) nurse, (b) patient, and (c) organization (Irvine et al., 1998). Nurse structural variables included experience

level, knowledge and skill level, and psychosocial variables such as self-efficacy (Irvine et al., 1998). Patient structure variables included: patient age, physical function at the time of admission, severity of illness, and co-morbidities. Organizational variables focused on staffing (availability of staff, staff mix, daily staffing levels, nurse/patient ratios), nursing assignment patterns (functional nursing, team nursing, or primary nursing), leadership, and available structures to support role clarity (Irvine et al., 1998).

Irvine et al. (1998) proposed that a set of relationships exist among structural variables, nurses' role functions, and patient system outcomes. Optimization of the relationships among variables and the nurses' role functions will lead to optimization of patient outcomes. This framework is appropriate for this study because of the interrelationship between nurses' roles, identified variables, and patient and environmental outcomes.

Nurses' Perception of Work Environment

Major factors in the work environment, such as autonomy and pressure, can result in nurse burnout (Atencio et al., 2003). The purpose of this study was to examine nurses' perceptions of autonomy, task orientation, and work pressure to better understand factors that influence nurse burnout and turnover. The authors chose the Organizational and Personal Factors and Outcomes as the framework (Schaefer & Moos, 1991, as cited in Atencio et al., 2003). The model consists of two systems: the organizational system and the personal system. The organizational system consists of the physical features, organizational structure and policies, work task factors, and work climate. The personal system consists of individual characteristics (work position and level of experience),

socio-demographic background, personal resources, and work place expectations and preferences.

The target population included all acute care staff nurses working in a large urban tertiary hospital in Northern California. Potential subjects included graduate nurses, staff nurses, charge nurses, and assistant head nurses. All advanced practice nurses, as well as managers and administrative nurses were excluded. The random sample consisted of 257 nurses of which 245 were female and 12 were male. Seventy-three percent of respondents were 40 years of age and older. Seventy-eight percent had worked as a nurse for more than 6 years (Atencio et al., 2003).

The authors used a longitudinal descriptive design with planned follow-up every 6 months for 2 years. The authors used a demographic/background characteristics tool, as well as the Work Environment Scale (WES) (Insel & Moos, 1994, as cited in Atencio et al., 2003). The WES measures three dimensions of the work environment: personal growth/goal orientation, relationships, and system maintenance/system change. The personal growth/goal orientation portion was used. This focuses on autonomy, task orientation, and work pressure. The WES validity and reliability have been documented.

Findings showed there was a statistically significant ($p < 0.045$) difference in views of autonomy between experienced nurses (greater than 21 years of experience) and novice nurses (less than 5 years of experience). The authors found that nurses with less than 5 years of experience had a higher perception of autonomy than more experienced nurses. Different types of work had no impact on autonomy. Nurses with less than 5 years of experience ($M=7.6$, 10=highest priority) perceived task orientation as more of a priority than experienced nurses ($M=6.5$) (Atencio et al., 2003).

Atencio et al. (2003) analyzed data in regards to hours worked per week and perceptions of work pressure. The findings identified that nurses working less than 30 hours per week had less pressure ($M=5.4$, 10 =most pressure) than nurses working 40 hours or more ($M=6.5$). Post hoc analysis showed that positive perceptions of autonomy ($F=3.1$, $p<0.045$), task orientation ($F=7.5$, $p<0.001$), and work pressure ($F=3.6$, $p<0.03$) improved job satisfaction, increased retention, and decreased turnover (Atencio et al., 2003).

Of particular interest to administrators were the relationships among years worked and perception of autonomy, and task orientation. The authors concluded that it is important to evaluate what factors are impacting why experienced nurses have less autonomy, and what initiatives should be implemented to improve autonomy (Atencio et al., 2003).

“Intent to leave” is a phenomenon that has been studied as an early indicator for turnover. Organizational climate may also impact intent to leave. The purpose of this study was to describe intensive care nurses’ intentions to leave due to undesirable working conditions, and to identify factors that predict intent to leave (Stone, Larson, Mooney-Kane, Smolowitz, Lin, & Dick, 2006).

The sample consisted of 952 registered nurses working in an adult ICU. The authors used a self-report survey to analyze organizational climates, demographics/characteristics, intentions to leave, and reasons for intending to leave. Nurses were categorized into two groups: (a) intending to leave due to working conditions, and (b) other (not leaving or retirees). The measure of organizational climate had seven subscales: professional practice, staffing/resource adequacy, nurse

management, nursing process, nurse/physician collaboration, nurse competence, and positive scheduling climate (Stone et al., 2006).

A total of 2,323 registered nurses from 66 hospitals, working in 110 critical care units were surveyed. The average participant was 39.5 years old (SD=9.40), with 15.6 years (SD=9.20) experience, and had worked in the current position for 8 years (SD=7.5). Analysis of the results indicated that 17% (n=391) intended to leave the position in the coming year. Over half of respondents (n=202) intending to leave within 1 year cited working conditions or organizational climate as the primary reason. The main three conditions cited as unsatisfactory were professional practice, nurse competence, and tenure ($p<0.05$) (Stone et al., 2006).

The authors concluded improving professional practice in the work environment, and the clinical competence of nurses, were important to decreasing turnover. By putting processes in place to improve the climate, the rate of turnover decreases and ensures a stable and qualified staff.

Physicians' Expectations of Nurses

The Swedish government passed a reform that gave nurses the responsibility for providing care to the patients within a residential home (assisted living facility). Physicians had been relegated to oversee patient interactions. Due to new found autonomy with unique perspectives and values, nurses and physicians were struggling with relationships with one another. The purpose of this study was to define the meaning of physicians' expectations regarding the nurses' responsibility of care for patients in residence homes (Karlsson, Nilsson, & Sirkka-Liisa, 2006).

This study was conducted in two municipalities in Sweden. The participants were all responsible for providing medical care to elderly individuals residing in residence homes. Approval was obtained from the Ethics Committee at Huddinge University Hospital, and from physicians' managers. The sample consisted of 12 physicians with a minimum of 2 years experience in providing medical care to elderly residents in residence homes. Four of the physicians had greater than 20 years experience, seven had more than 10 years of experience, and one physician had less than 10 years experience (Karlsson et al., 2005).

Each physician participated in a 1 hour interview. Each physician addressed the question "Please tell me about your expectations regarding nursing" (p. 383). The physicians were also asked to give scenarios when expectations had been met, as well as scenarios when not met. The interviews were audio-taped and then transcribed. The researchers used a three-phase analysis method. Each researcher analyzed data, and reconvened to discuss identified themes until a consensus was reached on the main themes (Karlsson et al., 2005).

The authors identified three major themes physicians expected of nursing: (a) nurses need to work independently; (b) nurses need to level out the physicians' involvement; and (c) nurses need to replace physicians, and be able to judge each situation in each case. The researchers expanded on the themes to identify exactly what each theme meant (Karlsson et al., 2005).

The authors concluded that physicians and nurses have expectations of each other. Nurses should become more aware of the other persons' perspectives and goals. When a

nurse and physician form a team (“us”), and work toward a common goal, the team becomes engaged, and works to the benefit of patients.

Nurse-Physician Communications

A migration of nurses to the ambulatory setting has occurred (Wilkinson & Hite, 2001). Little research has been done with nurses in ambulatory care settings on job satisfaction. The purpose of this study was to determine if a relationship exists between nurse-physician relationships and nurses’ self-perceived job satisfaction in ambulatory care settings. Herzberg’s Motivational Theory was the theoretical framework, based on the premise that certain factors are more likely to motivate individuals to excel in performance, and to produce positive attitudes (Herzberg et al., 1959, as cited in Wilkinson & Hite, 2001). The theory identifies motivators (job satisfiers), and hygienic factors (job dissatisfiers) as impacting job satisfaction (Wilkinson & Hite, 2001).

The population was RNs who were licensed and working in ambulatory care settings in Arizona. The authors defined ambulatory care as areas of care where patients sought treatment, and either returned home after being treated, or were referred to an admitting institution. The Arizona State Board of Nursing identified 1,128 nurses who met the criteria. The authors used systematic sampling to obtain a smaller sample. Every 9th nurse listed was sent a survey, with a total of 125 questionnaires being mailed (Wilkinson & Hite, 2001).

Two instruments were used for the study. The Weiss Collaborative Practice Scale (WCPS) is a self-report instrument that measures the degree to which the interactions of nurses and physicians influence patient outcomes. The nine-item WCPS was used to measure direct assertion of professional expertise/opinion, and active clarification of

mutual responsibilities. Internal reliability was 0.83 for the scale (Wilkinson & Hite, 2001).

The second instrument used was the McClosky-Mueller Satisfaction Scale. This is a 31-item scale that measures job satisfaction. The eight subscales measure three dimensions of satisfaction: safety, social rewards, and psychological rewards. The internal reliability and validity were established (Wilkinson & Hite, 2001).

Findings indicated that although nurses in ambulatory settings were in a collaborative relationship, there was no statistically significant relationship between the nurse-physician collaborative relationship and job satisfaction ($p=0.286$). The mean score for the Weiss Collaborative Practice Scale was 4.4 (out of 6), indicating nurses' were in a collaborative relationship with physicians in the ambulatory settings. The authors concluded this was due to the close working relationship between the nurses and a small number of physicians, resulting in higher trust levels. The authors also concluded that nurse-physician relations are stronger in settings where nurses have close contact with physicians (Wilkinson & Hite, 2001).

Nurse-physician relationships are critical to nurse retention and job satisfaction (Rosenstein, 2002). Physicians may play a role in nurse job satisfaction. Rosenstein (2005) focused on the nurse-physician relationship to assess the atmosphere, the significance of nurse-physician relationships, and to determine the influence of disruptive physician behavior on nurse satisfaction and retention. Disruptive physician behavior was defined as any inappropriate action, confrontation, or conflict ranging from verbal to physical harassment (Rosenstein, 2002). The purpose of this study was to compare the responses of nurses and physicians in regards to nurse-physician relationships, disruptive

physician behavior, and how this behavior impacted nurse satisfaction, morale, and retention (Rosenstein, 2002).

The study was conducted in several hospitals in the VHA West Coast division of VHA, Inc. (N=2,200), a network of community owned health care systems. The first 1,200 responses coming from employees of 84 hospitals or medical groups in VHA were analyzed. The hospitals ranged from large metropolitan teaching hospitals to small rural not-for-profit hospitals. Of the 1,200 participants, 720 were nurses, 173 were physicians, 26 were administrative executives, and the last 281 did not identify titles (Rosenstein, 2002).

Rosenstein (2002) developed the Nurse-Physician Relationship Survey for the study. The survey consisted of 24 items allowing for three types of responses: yes/no, Likert-type responses, and open-ended questions. The survey was tested with 20 physician executives, leadership councils, and market strategy departments prior to. Responses to open-ended questions were categorized by themes, and reported as percentages of responses that identified the theme (Rosenstein, 2002).

The results showed there was a statistically significant difference ($p < 0.01$) in the way nurses and physicians responded to each other (Rosenstein, 2002). Physicians ($M = 6.92$, $10 =$ very significant) viewed the nurse-physician relationship as less significant than nurses ($M = 7.58$, $10 =$ very significant) and executives ($M = 8.2$). When analyzing the data in regards to the overall atmosphere of the nurse-physician relationship in the hospital setting, the mean score was 6.89, with physicians rating the atmosphere most positive ($M = 7.52$). The authors found that nurses have a low opinion of the importance that physicians place on the nurse-physician relationship ($M = 4.17$, $10 =$ physicians are

extremely aware of the importance of the relationship). Rosenstein (2002) also identified that 92.5% of respondents had faced some sort of disruptive physician behavior. Nurses viewed disruptive physician behavior as playing an important role in nurse satisfaction and morale (M= 8.3, 10 = the behavior is very important to nurse satisfaction and morale). Physicians rated this item as less important than nurses (M=7.5).

When asked to identify how much support nurses received from physicians and executives when facing a disruptive physician, the mean response rate was 6.49 (10=most supportive) for executives, and 5.29 (10=most supportive) for physicians. Nurses did not receive adequate support from other physicians. Sixty-five percent of respondents stated the hospital had a code of conduct for physicians, but only 48.5% believed the policy was effective. About 78% of nurse respondents were comfortable reporting a physician, with 44% citing fear of retribution as the greatest barrier (Rosenstein, 2002).

The author concluded that identifying causes of disruptive behavior, decreasing barriers to reporting physician issues, and focus on improving nurse-physician communication and collaboration will enhance nurses' work environments (Rosenstein, 2002). Nurse executives must take an active role in establishing an atmosphere that encourages collaboration and accountability.

Literature consistently reports on the importance of "good" nurse-physician relationships and the impact on patient outcomes. Current trends have defined "good," meaning collaborative. The purpose of this qualitative study was to define what "good" meant in reference to nurse-physician relationships (Kramer & Schmalenberg, 2003). The study took place in 14 Magnet hospitals. The sample consisted of 279 staff nurses and 146 nurse managers (Kramer & Schmalenberg, 2003).

Each author conducted interviews with 10 staff nurses from each hospital. The focus of the interview was attraction, retention, and staffing, with an emphasis on autonomy, control over nursing practice, and the quality of the nurse-physician relationship. The nurses were also asked to rate the quality of care given on the unit using a 10-point Likert type scale (10 is high) (Kramer & Schmalenberg, 2003).

Initially, nurses were asked what the typical nurse-physician relationship was like. Most respondents replied with terms such as good, okay, superb, antagonistic, or nonexistent. Nurses were then asked to describe the relationship. "Power" emerged as the dominant theme in responses from nurses. Using power as the underlying variable, and based on the descriptions of nurse-physician relationships provided by nurses during the survey, the authors developed a five category scale to describe nurse-physician relationships. The first theme was "collegial." This theme meant that relationships are defined as excellent, and based on equal power and knowledge. The second theme was "collaborative." Relationships in this category were described as good/great, and contained a mutual sense of respect and trust leading to a strong sense of willing cooperation. The answers did not support the same equality of power found in collegial relationships. The third theme was "student-teacher." Relationships in this category were described as good, pleasant, friendly, and courteous. Physicians were willing to discuss and teach but there was an inequality in the power structure (Kramer & Schmalenberg, 2003).

The fourth category was "neutral." The nurses in this category described relationships as lacking feeling. There would be an exchange of information, but seldom did recognition of individuals occur. The final category was "negative." The

relationships were described as hostile and frustrating. Power was unequal and patient outcomes were typically negative. When the authors compared the five categories with nurses' responses regarding the care given on the unit, findings showed a positive correlation between the quality of the nurse-physician relationship and the quality of care provided (Kramer & Schmalenberg, 2003).

The authors concluded that nurse-physician relationships vary from good or collaborative, to neutral or negative. Based on findings from the study, it was concluded that nurse managers and health care executives need to develop an atmosphere supportive of collegial nurse-physician relationships. Then nurses' sense of autonomy and control of practice will be heightened leading to a higher level of job satisfaction and a greater desire to improve patient care.

Two of the most important aspects of nurse retention are the nurses' work environment and job satisfaction (Manojlovich, 2005). Manojlovich reported that the nurses' work environment and communications may both be predictors of job satisfaction. The purpose of this cross-sectional study was to investigate direct and indirect relationships among nurse-physician communication in the work environment, and the effect on nurses' job satisfaction (Manojlovich, 2005). The researcher chose the Nursing Role Effectiveness Model (NREM) (Irvine et al., 1998) as the conceptual framework. The model emphasizes that structural variables affect both nursing roles and outcomes. For the purpose of this study, the authors tested only the nurse structural variables and the organizational structural variables of the NREM. The variables test how nurses' perceptions of the nurse-physician communication role are affected by work

environment and nursing characteristics. The outcome is the nurses' sense of job satisfaction (Manojlovich, 2005).

The study took place in Michigan, and included acute care nurses employed in Michigan hospitals. The sample of 500 acute care nurses was drawn from a list of nurses provided by the Michigan Nurse Association, and then randomly selected. Inclusion criteria consisted of being actively employed in a hospital setting providing direct patient care. Of the 500 surveys mailed, 332 (66%) surveys were returned. The final sample consisted of 284 surveys available for analysis. The average age of the participants was 42.9, years with an average of 17 years of work experience in nursing. Ninety-five percent of the participants were female (n=270). The majority were educated at an associate degree level (n=118, 41%), with 39.1% having a baccalaureate degree (n=111) (Manojlovich, 2005).

Four instruments were used to measure nurses' job satisfaction, work environment, and nurse-physician relationships. Information regarding demographic and organizational characteristics was also obtained. The Conditions for Work Effectiveness Questionnaire-II (CWEQ-II) and the Practice Environment Scale of the Nursing Work Index (NWI) were used to measure job satisfaction in the work environment. The CWEQ-II measured empowerment in the work environment. The questionnaire has six subscales with 21 items that measure Kantner's concept of empowerment (Laschinger et al., 2001, as cited in Manojlovich, 2005). The six subscales are: opportunity, information, support, resources, job activities, and organizational relationship. Items are scored on a 5-point Likert-type scale, with 1= strongly disagree and 5= strongly agree.

Content and construct validity had been established (Laschinger et al., 2001, as cited in Manojlovich, 2005).

The PES-NWI tool measured nurses' perceptions of various factors in the work environment. This questionnaire has 31 items, using a 4-point Likert type scale. The subscales focus on key domains in the hospital that support professional nursing practice. For the purpose of this study, the subscale focusing on collegial nurse-physician relations was removed to prevent multicollinearity with the nurse-physician communication tool. The subscale internal consistency coefficients ranged from .71-.84 and construct validity had been established (Manojlovich, 2005).

The other two tools used in the study focused on the nurse-physician relationship and nurses' job satisfaction. Nurse-physician communication was measured using questions from the ICU Nurse-Physician Questionnaire (Shortell, Rousseau, Gillis, Devers, & Simmons, 1991, as cited in Manojlovich, 2005). The questionnaire consists of subscales focusing on factors that affect relations among nurses and physicians. However for this study, only the subscales focusing on between group communications were used: openness, accuracy, timeliness, and nurses' understanding of the communication, as well as a single item measuring nurses' satisfaction with communication. Although developed for use with ICU nurses, the tool has been used in a study with a sample of medical-surgical nurses (Irvine-Doran, Sidani, Keating, & Doidge, 2002). Convergent and discriminant validity were assessed through factor analysis. The final tool used was the Index of Work Satisfaction (IWS). Part B of the IWS measured nurses' satisfaction with: autonomy, pay, professional status, interaction with nurses, interaction with physicians, task requirements, and organizational policies.

The IWS has a 7-point Likert-type scale. Construct and content validity had been established through factor analysis (Manojlovich, 2005).

The findings showed both the practice environment ($B=.27$), and the structural environment ($B=.22$) explained significant variance in nurse-physician communication. The results indicated that nurses' perceptions of the effectiveness of nurse-physician communications were affected by organizational and work environment factors (Manojlovich, 2005). When adding nurse-physician communication ($B=.37$) to the practice environment and structural empowerment variables, the percentage of variance noted in nurses' job satisfaction increased to 61% ($R^2 = .61$). This indicated that the combination of work environment factors and nurse-physician communications were very strong predictors of job satisfaction (Manojlovich, 2005). The authors also found that nurses' perceptions of ability to communicate effectively with physicians does impact the work environment, and consequently does affect overall job satisfaction ($r=0.61$, $p < .01$) (Manojlovich, 2005).

Findings supported the overall configuration of NREM. It is very apparent that the nurse-physician relationship, specifically communications, is important to the work environment. It is imperative that nurses and physicians are provided opportunities to further develop strong communication skills.

Evidence suggests that many factors in the work environment can have an adverse effect on patients' outcomes. The relationship between nursing processes (such as nurse-physician communication), and patient outcomes needs further examination. The purpose of this study was to examine the relationship between ICU nurses' perceptions of the practice environment, nurse-physician communications, and patient outcomes,

specifically VAP (vent acquired pneumonia), catheter-associated sepsis, and medication errors (Manojlovich & DeCicco, 2007).

With reports stating as many as 1.7 errors occur per patient per day in the ICUs, the authors focused on the ICU setting. All nurses (N=866) working in 25 different ICUs across eight hospitals in southeastern Michigan were surveyed. Of the 866 surveyed, 462 (53%) surveys were returned. All surveys missing data were excluded, resulting in a final sample of 449 (52%) surveys. The majority of nurses were Caucasian (78%), women (84%), with an average age of 39.3 years. The mean number of years of experience was 13 years, with an average of 8 years of ICU experience. Seventy-two percent of nurses surveyed worked full time (Manojlovich & DeCicco, 2007).

Four instruments were used for variable measurements. The Condition for Work Effectiveness Questionnaire II (CWEQ-II) was used to measure work place empowerment. The CWEQ-II has a 5-point Likert-type scale that measured concepts from Kantner's Framework of Empowerment. The six subscale measures are: opportunity, information, support, resources, the job activities scale II, and organization relationship scale II. Both content and construct validity had been established. For this study, the Chronbach alpha was 0.92 (Manojlovich & DeCicco, 2007).

The second instrument was the Practice Environment Scale of the Nursing Work Index (PES-NWI). The PES-NWI was used to measure the extent to which nursing practice environments were consistent with characteristics of magnet hospitals. This tool has a 4-point Likert-type scale. The scale addresses key domain in the hospital environment that support nursing practice. For this study, internal reliability was 0.92. Construct validity had been established (Manojlovich & DeCicco, 2007).

Nurse-physician communications were measured using a part of the ICU Nurse-Physician Questionnaire. The questionnaire measures variables that affect relationships between nurses and physicians. The authors used subscales that measure between-group communication: openness, accuracy, timeliness, and understanding of the communication. Convergent and discriminant validity were established. Internal reliability was 0.92 for this study (Manojlovich & DeCicco, 2007). The final instrument was a 4-point Likert-type scale, measuring how often VAP, catheter-associated sepsis, and medication errors had occurred in the previous 3 months (Manojlovich & DeCicco, 2007).

Findings showed that medication errors had a significant negative relationship ($r = -0.13$, $p < 0.001$) with nurse-physician communications. The results suggested that as nurses' perceptions of communications with physicians improved, medication errors decreased. A significant negative relationship was also found between VAP ($r = -0.10$, $p < 0.05$) and catheter-associated sepsis ($r = -0.09$, $p < 0.05$), with nurse-physician communications indicating that as nurses had stronger communications with physicians, patient complications declined (Manojlovich & DeCicco, 2007).

Data were also analyzed for factors that were strong predictors of positive nurse-physician communication. Empowerment ($r = 0.174$, $p < 0.001$), and magnet hospital characteristics ($r = 0.842$, $p < 0.001$) were both strong influences on nurse-physician communications (Manojlovich & DeCicco, 2007). The authors concluded that by improving nurse-physician relationships, and the communications between nurses and physicians, staff may find a reduction in patient complications and medication errors resulting in improved patient outcomes.

The nurse-physician relationship is prone to conflicts that can lead to stress for nurses. There is little knowledge regarding nurses' ability to manage stress in the nurse-physician relationship. Further explanation is needed about the relationship between stress in the nurse-physician relationship and the nurses' job satisfaction. The purpose of this study was to review different techniques nurses use to resolve conflicts, with doctors as well as how the technique affects stress levels and job satisfaction (Tobak & Koprak, 2007). The authors developed four hypotheses to be tested:

Hypothesis 1: There will be a correlation between the way a nurse chooses to resolve conflict with physicians and the degree of stress at work.

Hypothesis 2: Nurses who prefer the integrating-dominance approaches to resolving conflicts with physicians will show less work-related stress than nurses preferring the obliging-avoidance approaches.

Hypothesis 3: There will be an inverse relationship between the level of stress and degree of job satisfaction.

Hypothesis 4: Nurses who adopt integrating and dominance for resolving conflicts will be subject to lower stress and in consequence, higher job satisfaction than nurses who choose the obliging and avoidance approaches.

Stress acts as an intervening or mediating variable between conflict resolution and job satisfaction (Tobak & Koprak, 2007, p. 324.).

The authors chose the Concept-Resolution Model (Rahim & Bonoma, 1979, as cited in Tobak & Koprak, 2007) as the conceptual framework. There are two main dimensions to the model, Concern for Self (the extent to which an individual looks after interests and needs in a conflict situation), and Concern for Others (the extent to which

and individual is anxious to meet the other party's interests). The model has five main approaches to conflict resolution: (a) integrating (problem-solving); (b) obliging (smoothing over); (c) dominance (concern with self); (d) avoidance (withdrawal); and (e) compromise (middle of the road) (Rahim & Bonoma, 1979, as cited in Tobak & Koprak, 2007).

The authors conducted this study at one of the largest hospitals in Tel Aviv, Israel. The target population consisted of all nurses at this hospital. The sample was a convenience sample of 117 nurses between the ages of 21-35, of which 112 were women, and 5 were men. The sample included 85% registered nurses and 15% practical nurses (Tobak & Koprak, 2007).

The researchers used four questionnaires. First, the authors developed a questionnaire specifically for this study to describe how nurses resolve conflicts with physicians. The questionnaire was built around four nursing situations in which conflict might arise: making a care plan, calling in the physician, where to place the patient, and obeying a specific instruction from the physician. The Cronbach's alpha internal reliability for the questionnaire was 0.83. The second questionnaire was the Health Professions Stress Inventory (Wolfgang, 1988, as cited in Tobak & Koprak, 2007) used to measure workplace stress on healthcare workers. The third questionnaire addressing job satisfaction was based on Hackman and Oldman's Job Diagnostic Survey. The questionnaire was translated into Hebrew, modified and supplemented to adapt nursing context. The fourth questionnaire addressed on demographic information and occupational data. All four instruments were validated by a pilot study of 20 nurses from different units and hospitals in Israel (Tobak & Koprak, 2007).

The findings showed that nurses' stress levels were significantly correlated with how the nurse chose to handle a conflict with the physician. If the nurse chose to be assertive, and voiced an opinion to the physician, the nurse reported less stress ($r = -0.25$, $p < 0.01$), and higher job satisfaction ($r = 0.41$, $p < 0.001$). The nurse who chose to avoid the conflict, or oblige (give in) the physicians while violating personal values, reported higher levels of stress ($r = 0.31$, $p < 0.001$), and lower levels of job satisfaction ($r = -0.18$, $p < 0.05$). The authors found a strong, statistically significant negative correlation between degrees of stress and job satisfaction ($r = -0.30$, $p < 0.01$) (Tobak & Koprak, 2007).

Nurses and physicians need to work on positive working relationships, and on maintaining positive working relationships when conflicts arise. Conflict resolution strategies should be taught so nurses can choose what type of approach to take when conflicts occur. Teaching positive self-assertive techniques needs to start while the student is in nursing school, and continue via good mentors, preceptors, and effective managers once the nurse enters the working environment (Tobak & Koprak, 2007).

A major challenge resulting from the complex health care reorganization is the need for greater collaboration between nurses and physicians. Nurses and physicians have not emphasized collaboration, and may not be aware of expectations (Hendel, Fish, & Berger, 2007). Consequently, conflict arises from differing beliefs and attitudes that each party brings to the situation. The purpose of this study was to identify and compare conflict mode choices of physicians and head nurses, and to examine the relationship of conflict mode with individuals' characteristics (Hendel et al., 2007). The theoretical framework was based on Thomas and Kilmann's Model of Conflict Resolution. The framework has two dimensions: assertiveness and cooperativeness, and five predominant

modes: avoiding, accommodating, competing, collaborating, and compromising. Each mode consists of varying degrees of assertiveness and cooperativeness. The framework defines collaboration as the best choice for conflict resolution (Hendel et al., 2007).

One hundred and twenty-five physicians and 60 head nurses from five acute care hospitals were asked to participate in the study. Participation was voluntary, and all responses were kept anonymous. All participants were working on a medical/surgical unit. A total of 75 (60%) responses from physicians, and 54 (90%) responses from head nurses were obtained (Hendel et al., 2007).

The Thomas-Kilmann Conflict Mode Instrument was used to measure the five conflict management modes. The instrument consists of 30 pairs of forced choice statements with words that required participants to identify the statement most characteristic of behavior during conflict (Hendel et al., 2007). The instrument is divided into five subscales, with each subscale addressing one conflict mode. The reliability coefficients ranged from 0.42 to 0.71. The authors also used a sociodemographic questionnaire addressing: age, gender, country of origin, professional status and experience, clinical field, and ward size (Hendel et al., 2007).

The findings showed the compromising mode was used most frequently by both physicians ($M=7.27$, $SD=1.88$) and nurses ($M=7.25$, $SD=2.18$). The two groups differed in the least frequently used mode. Physicians used the collaborating mode significantly less frequently ($M=4.9$, $SD=2.1$, $p < 0.001$), whereas nurses used accommodating significantly less frequently ($M=4.0$, $SD=1.77$, $p < 0.05$) (Hendel et al., 2007). The findings also showed approximately 40% of physicians, and 50% of nurses have only one conflict management style.

The authors concluded that there is a need to strengthen relationships between physicians and nurses (Hendel et al., 2007). It is important to recognize that many individuals are limited to one choice of resolution style. Therefore, an emphasis must be placed on education to teach nurses and physicians a more preferable style that will benefit the patient through improved outcomes and reduced costs.

A major challenge for collaboration in hospitals is the nurse-physician relationship. The purpose of this study was to describe attitudes of nurses and physicians regarding nurse-physician collaboration in a general medical/surgical patient care setting (Thomson, 2007).

The study took place in a large university teaching hospital with Magnet designation. Nurses and physicians were recruited from four general medical/surgical patient care units. A total of 40 physicians and 67 nurses were asked to participate. A total of 104 subjects participated in the study (Thomson, 2007).

The author used the Jefferson Scale of Attitudes to measure nurse-physician collaboration. The instrument measured the perceived work relationship between nurses and physicians. The survey addresses autonomy and decision making, professional education and relationships, psychosocial care, and teamwork and shared responsibilities. The instrument consisted of 15 items with a 4-point Likert type scale. Participants' attitudes toward collaboration were reflected by the total score, with a higher score reflecting greater collaboration. The instrument demonstrated a high reliability as evidenced by use in previous studies conducted by the author (Thomson, 2007).

Findings indicated nurses have a more positive attitude toward nurse-physician collaboration ($M=52.7$) than physicians ($M=47.6$). Findings did not suggest a significant

correlation between demographic data and attitudes toward nurse-physician collaboration (Thomson, 2007). The author compared the total scores to four specific areas: shared education and teamwork, caring versus curing, nurses' autonomy, and physicians' dominance. Findings indicated both nurses and physicians shared positive attitudes toward collaboration regarding education and teamwork, caring versus curing, and nurses' autonomy (Thomson, 2007).

The author concluded that nurse characteristics are not a factor in attitudes toward physicians (Thomson, 2007). Medical schools must begin to identify approaches that will develop a collaborative team approach to care. Nurse Managers have the same responsibility to encourage collaborative team approaches to care through nurse-physician dyads, with a focus on improving patient quality care and reducing costs.

Nurses and physicians confront complex issues collaboratively on a daily basis. However communications between the two groups do not always flow smoothly (Manojlovich & Antonakos, 2008). The purpose of this study was to identify specific aspects of communication that could be linked to nurses' satisfaction with communications (Manojlovich & Antonakos, 2008). The authors focused on four specific elements of communication occurring between ICU nurses and physicians: timeliness, openness, understanding, and accuracy, and the impact these elements had on communication satisfaction levels (Manojlovich & Antonakos, 2008).

The setting included 25 ICUs from eight hospitals in Southeast Michigan. The hospitals included both academic and large urban healthcare systems. The population included all RNs working in any of the 25 ICUs. Inclusion criteria included working part or full time, being out of orientation, and spending at least 50% of one's position in

staffing (Manojlovich & Antonakos, 2008). The sample that participated included 407 nurses.

The authors used the ICU Nurse-Physician Questionnaire to measure communications between nurses and physicians. The questionnaire consists of 47 items that measure factors affecting relationships between physicians and nurses. The authors used only the scales focusing on between group communications. The scales measured openness, accuracy, timeliness, and understanding of communications (Manojlovich & Antonakos, 2008). The scales have a 5-point Likert type rating ranging from 1= strongly disagrees to 5= strongly agree. Chronbach reliabilities ranged from 0.64 to 0.86. The authors also used a 10 cm horizontal visual analog scale to measure nurses' overall satisfaction with physician communication on the unit. The scale ranged from totally dissatisfied, to the point where "I dread communicating with physicians" to totally satisfied, to the point where "I enjoy communicating with physicians." After completing the questionnaire, nurses were asked to mark satisfaction ratings (Manojlovich & Antonakos, 2008, p. 241).

Findings showed that openness ($r= 0.76$, $p < 0.001$) and understanding ($r= 0.73$, $p < 0.001$) were significantly positively associated with communication satisfaction. Timeliness of communication had only a moderately positive association ($r= 0.58$, $p < 0.001$) with satisfaction. Accuracy was weakly associated with satisfaction ($r= 0.45$, $p < 0.001$). Findings showed that the level of physician experience was a significant contributor to communication satisfaction (Manojlovich & Antonakos, 2008). Findings showed from all four scales were significantly positively related to communications with attending physicians ($r= 0.21$, $p < 0.001$), whereas communications with first year

residents was significantly negatively correlated ($r = -0.16$, $p < 0.001$). An additional finding indicated a significantly positive correlation between communication satisfaction and job satisfaction ($r = 0.34$, $p < 0.001$) (Manojlovich & Antonakos, 2008).

With less importance being placed on timeliness and accuracy in regards to communication satisfaction, it is questionable how likely nurses will be to focus on the parameters despite the emphasis placed by the Joint Commission (Manojlovich & Antonakos, 2008). It is the nurse manager's responsibility to address the importance of the issues with nurses, and to develop a means to improve. It is also important for nurse managers to recognize the positive relationship between communication satisfaction and job satisfaction and to identify processes that will foster nurse-physician communication.

Summary

Nurses' perceptions of the work environment directly influence nurse burnout and turnover. Atencio et al. (2003) found that autonomy, task orientation, and work pressure were all factors that significantly influenced nurses' level of satisfaction with the work environment. Additional factors have been found to impact a nurse's intent to leave an organization. In a study by Stone et al. (2006), 17% of nurses surveyed intended to leave the position. Of those 17%, over half cited working conditions as the primary reason for leaving.

Karlsson et al. (2005) found that physicians have expectations of nurses. The expectations include: the need for nurses to work independently (develop a sense of autonomy with the physician assuming the role of support); to level out the physicians' involvement (anticipate problems and know when to notify physicians); and to replace physicians by judging each situation (become an extension of the physician to identify

patient needs). Nurses must be aware of physician expectations and work toward a common goal to enhance patient outcomes.

A major factor impacting nurses' satisfaction and work environment is the nurse-physician relationship. Wilkinson and Hite (2001) examined the ambulatory care setting to determine if a relationship exists between the nurse-physician relationship and nurses' perception of job satisfaction. Findings showed that nurses perceived a strong collaborative relationship with physicians that enhanced job satisfaction.

In a study by Rosenstein (2002), findings showed that disruptive physician behavior influences nurses' attitude toward patient care and the work environment. Disruptive physician behavior often leads to confrontation and conflict, contributing to a decrease in nurses' level of job satisfaction.

Studies have identified that good nurse-physician relationships have a strong impact on patient outcomes. Kramer and Schmalenberg (2003) defined what "good" means in regards to the nurse-physician relationship. The authors identified five themes referencing the nurse-physician relationships: (a) collegial; (b) collaborative; (c) student-teacher; (d) neutral; and (e) negative. Findings indicated that collegial relationships between the nurse and physician lead to higher quality outcomes for patients.

Nurse-physician communications tend to have a large impact on the nurse-physician relationship and nurses' levels of job satisfaction. Manojlovich (2005) addressed nurse-physician relationships by researching communications between the two groups, and the impact it has on nurses' work environment and thus job satisfaction. Findings indicated that nurses' perceptions of the effectiveness of nurse-physician communication were affected by organizational and work environment factors. When

adding nurse-physician communications to the organizational and work environment variables, nurses' job satisfaction increased, indicating that the combination of the three factors was strong predictors of nurses' job satisfaction. In 2007, Manojlovich and DeCicco continued the research on nurse-physician communication by studying ICU nurses' perceptions of the practice environment, nurse-physician communications, and specific patient outcomes such as VAP, catheter-associated sepsis, and medication errors. Findings showed that better nurse-physician communication significantly reduced the number of medication errors and decreased the incidence of VAP and catheter-associated sepsis in the ICU. In a final study by Manojlovich and Antonakos (2008), findings showed that openness and understanding of physicians' communications positively impacted nurses' levels of job satisfaction.

In a study conducted in Israel by Tobak and Koprak (2007), the choice of nurses' conflict resolution styles in dealing with physicians were evaluated for the impact on nurses' stress levels and job satisfaction. The authors found that nurses' stress levels were significantly correlated with how the nurse chose to handle conflict with the physician. Nurses choosing to be assertive in conflicting situations demonstrated lower stress levels and higher levels of job satisfaction. Further findings indicated that as stress levels decreased, nurses' job satisfaction levels increased.

A similar study was done by Hendel et al. (2007) examining conflict mode choices of physicians and head nurses. The authors found that physicians and nurses tend to use compromise as the primary conflict resolution mode. Neither group chose collaborating (win-win solution) to deal with conflict on the unit. Findings also indicated that almost half of both groups used only one style of conflict resolution.

A study by Thomson (2007) further examined nurses' and physicians' attitudes toward collaborative relationships. The findings showed that nurses tend to view collaborative relationships in a more positive light than physicians. The different views of collaboration can lead to conflict in the unit.

Chapter III

Methodology

Introduction

Work environment characteristics are related to nurses' job satisfaction. It is important to identify environmental factors that influence levels of job satisfaction among nurses. The purpose of this study is to describe direct and indirect relationships in the hospital practice environment, nurse-physician communications, and nurse job satisfaction based on the NREM. This is a modified replication of Manojlovich's (2005) study.

Research Question

1. Is there a relationship among hospital environment, nurse characteristics, and nurses' job satisfaction?
2. Is there a relationship between nurse-physician communication and nurses' job satisfaction?

Population, Sample, and Setting

The population for this study will include all acute care nurses, approximately 1,500, working within the Community Health Network setting in Central Indiana. The nurses must be currently employed in an Intensive Care Unit, a Progressive Care Unit, or a Medical/Surgical Unit. To be included in the study, nurses must be in either a direct

patient caregiver role or in contact with patients on a regular basis (ie., nurse educator).

The anticipated sample is 500 registered nurses.

Protection of Human Rights

The study will be submitted for approval to Ball State University IRB, and Community Health Network's Internal Review Board (IRB). Participation is completely voluntary. Each participant will receive a cover letter with the full explanation of the study. Consent is assumed upon receipt of the completed questionnaire. Data will be viewed only by the researcher and the data analyst, thereby ensuring anonymity. No names will be used in the reporting of the data. There are no anticipated risks with participation in this study. Benefits of the study include identifying factors that impact the RN-MD relationship, the communication styles that foster a strong RN-MD relationship, and how the RN-MD relationship impacts the nurse's work environment.

Procedures

After receiving approval from both Institutions' IRBs, the researcher will meet with the Directors of Nursing at each facility to explain the study and to obtain permission to conduct the study, and permission to meet with the managers and nurses of each selected unit. After approval from the Directors of Nursing, the researcher will meet collectively with the nurse managers of each hospital about the study. After receiving approval from unit leadership, the number of eligible nurses will be obtained from each unit manager. Packets that include a letter explaining the study, questionnaires, and a return envelope, will be prepared. The packets will be distributed to each manager for distribution to nurses. A bin will be set up on each unit for collection of completed

surveys. In an effort to improve response rates, additional reminders will be posted on each unit throughout the completion period.

Research Design

A non-experimental descriptive correlational design will be used to examine relationships among the variables. Burns and Groves (2009) defined a correlational design as one that may be used to determine relationships between variables, clarify the relationships among theoretical concepts, or assist in identifying causal relationships. In this study, the correlational design is used to identify the relationships among nurse-physician communication, the work environment, and nurses' job satisfaction.

Instruments, Reliability, and Validity

A questionnaire will be used to collect demographic information including: age, sex, ethnicity, educational level, years of experience, years in the current institution, work status (full-time, part-time, or per diem), and type of position (Manojlovich, 2005).

Study instruments will include the Conditions for Work Effectiveness Questionnaire II (CWEQ-II), the Practice Environment Scale of the Nursing Work Index (PES-NWI), the ICU Nurse-Physician Questionnaire, and the Index of Work Satisfaction (IWS). The CWEQ-II and the PES-NWI will be used to measure factors that impact the work environment and job satisfaction. The CWEQ-II measures empowerment in the work environment. The questionnaire has six subscales with 21 items measuring Kantner's Framework of Empowerment (Laschinger et al., 2001, as cited in Manojlovich, 2005). The six subscales are: opportunity, information, support, resources, job activities, and organizational relationships. Items are scored on a 5-point Likert-type scale with 1= strongly disagree and 5= strongly agree. Content and construct validity have been

established (Lachinger et al., 2001, as cited in Manojlovich, 2005). Cronbach's alpha coefficient for the total score is 0.90.

The PES-NWI tool (Lake, 2002, as cited in Manojlovich, 2005) measures nurses' perceptions of various factors in the work environment. This questionnaire has 31 items rated on a 4-point Likert type scale. The subscales focus on key domains in the hospital that support professional nursing practice: nurse participation in hospital affairs, nursing foundations for quality care, nurse manager ability, leadership, and support of nurses, staffing and resource adequacy, and collegial nurse-physician relationships. The subscale internal consistency coefficients ranged from .71-.84 with an overall Cronbach's coefficient of 0.82. Construct validity has been established and confirmatory factor analysis supports the five subscale structure of the tool. Cronbach's alpha coefficient for this study is 0.93 as described by Manojlovich (2005).

The ICU Nurse-Physician Questionnaire (Shortell, Rousseau, Gillies, Devers, & Simons, 1991, as cited in Manojlovich, 2005) will be used to measure nurse-physician communications. The questionnaire consists of subscales focusing on factors that affect relations among nurses and physicians. However for this study, only the subscales focusing on between group communications will be used: openness, accuracy, timeliness, and nurses' understanding of the communication, as well as a single item measuring nurses' satisfaction with communication. Although developed for use with ICU nurses, the tool has been used in a study with a sample of medical-surgical nurses (Irvine-Doran, Sidani, Keating, & Doidge, 2002). Convergent and discriminant validity were assessed through factor analysis. Cronbach alpha coefficients ranging from 0.64 to 0.88 have been

reported. Since this study will use only the total communication scores, the Cronbach alpha coefficient of 0.93 will be used.

The final instrument that will be used in this study is the Index of Work Satisfaction (IWS) (McGillis-Hall, 2002, as cited in Manojlovich, 2005). The IWS measures nursing job satisfaction, and only part B will be used. This section consists of 41 items in seven subscales. The subscales indicate nurses' satisfaction with: autonomy, pay, professional status, interaction with nurses, interaction with physicians, task requirements, and organizational policies. Researchers using the IWS have reported subscale Cronbach alpha coefficients ranging from 0.35 to 0.9 with total score reliability of 0.82 to 0.90. For the Manojlovich (2005) study, the Cronbach alpha coefficient was 0.92.

Data Analysis

Descriptive statistics will be used to describe characteristics of the sample, as well as means for dependent and independent variables. A Pearson correlation will be done to examine relationships between two variables without examining cause and effect (Burns & Groves, 2009). Multiple regression analysis will also be performed to predict relationships with more than two variables.

Summary

Multiple factors impact a nurse's work environment and job satisfaction. The purpose of this study is to investigate the relationships among the practice environment, nurse-physician communication, and nurses' job satisfaction. This study will replicate a previous study by Manojlovich (2005) in an attempt to validate the previous findings that a positive correlation exists between nurse-physician communications and nurses' level

of job satisfaction. Nurses in acute care units within the Community Health Network system will be invited to participate. Findings from this study will be shared with hospital administrators to further the work on nurse-physician relationships and to enhance job satisfaction and organizational commitment.

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