

WORK ENVIRONMENTAL FACTORS AFFECTING STAFF NURSE RETENTION

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JANE A. EDWARDS

DR. CYNTHIA THOMAS - ADVISOR

BALL STATE UNIVERSITY

MUNCIE, INDIANA

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## Abstract

RESEARCH SUBJECT: Work Environment Factors Affecting Staff Nurse Retention

STUDENT: Jane Edwards, BSN, RN

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Nurses are experiencing increased stress and pressure in the work environment. The social climate of the work place impacts nurses' perceptions of autonomy, task orientation, and work pressure. The purpose of this study is to describe nurses' perceptions of autonomy, task orientation, and work pressure to better understand nurse turnover. The study is a replication of Atencio, Cohen, and Gorenburg's study (2003). The Organizational and Personal Factors and Outcomes (Moos, 1991) is the conceptual framework for this study. The population consists of acute care staff registered nurses (RN) (n= 400), who have worked at least 1 year at a 550 bed acute care facility in a Midwestern state. The anticipated sample is 100 RNs who will be followed every 6 months, for 24 months, to monitor retention on the original units. The Insel and Moos Work Environment Scale (WES) form R (Moos, 1994) will measure three dimensions of the work environment: personal, relationships and systems. Demographic data will also be collected to describe the sample. Findings will provide information about factors that influence staff nurses' perceptions of the work environment for staff development educators.

## Chapter I

### *Introduction*

The evolving nursing shortage has and continues to receive considerable attention from researchers, health care organizations, higher education faculty and policymakers. The attention not only focuses on attracting new nurses but also retaining more experienced nurses. The estimated cost to replace a registered nurse is 1.2 to 1.3 times a nurses annual salary (\$40,000 to \$65,000) (Kovner, Brewer, Greene, & Fairchild, 2009). The average cost to replace a specialty area nurse is significantly more. Nursing units with low nurse turnover are likely to have fewer patient falls than nursing units experiencing higher turnover. Also, workgroup cohesion and relational coordination had a positive impact on patient satisfaction, while increased workgroup learning led to fewer occurrences of severe medication errors (Bae, Mark, & Fried, 2011). With the many costs incurred by nursing turnover, nurse leaders and employers are investigating environmental factors that may have an affect on nurses leaving the workplace.

### *Background and Significance*

Prior to the Civil War (1861-1865), patients were cared for in the home by family members, friends, servants, or slaves. The first hospitals in the United States

were established by Catholic nuns, as a service to the poor and needy. The Nuns took care of smaller groups of patients until they were no longer able to care for the increasingly larger numbers. At that point, women were recruited to help care for the patients in exchange for room and board and a small stipend. It soon became apparent that nurses needed special training to protect the patients from incompetent and inadequate nurses. The first four schools of nursing were founded by 1873. Around the 1900s there were 400 schools of nursing, increasing to 1200 by 1910. Almost all of the schools of nursing during this time were in hospitals concurring students with a nursing diploma. Early nursing schools were not well regulated. Eventually, nursing leaders pushed for reform, and in 1907 the first nursing professor was hired at Columbia University. World War I and II increased the demand for nurses to care for the injured soldiers as well as other patients in hospitals. As the field of medicine continued to evolve, it was evident that nurse education needed reformed. In 1965, 85% of the U. S. nurses were still educated in hospital-based diploma programs. The American Nurses Association (ANA) proposed nurse education be based within colleges and universities. The evolving nurse education would transition from being hospital based to university based leading to the evolution of nursing education and standards of practice. Hospitals no longer had the cheap labor force of nurses in training increasing the demand for well educated and experienced nurses. The demand for nurses continued to the point of labeling this situation a, “nurse shortage.” The cycles of registered nurse shortages continued to be an issue with only a few brief periods of exception; in the mid 1980s, when supply and demand were balanced, and from 1990-1992 when a slight surplus existed (Buerhaus, Staiger, & Auerbach, 2003). The current nursing shortage in

the United States is expected to increase with an estimated shortage of 260,000 registered nurses by the year 2025 (Rother, & Lavizzo-Mourey, 2009). Currently, there are not registered nurses to fill open nursing positions.

The ageing nurse population is another area of concern. Registered nurses over the age of 50 years comprised 44.7% of the nurse workforce in 2008 compared to 33% in 2000 (National Sample Survey of Registered Nurses, 2011). These ageing nurses bring experience that new registered nurses lack. More experienced nurses' will begin to retire within the next 10 years creating concern that a lack of graduating nurses will enter the work force as replacements.

#### *Purpose of the Study*

The purpose of the study was to determine how environmental factors affect the staff nurses. By identifying environmental factors that may contribute to nurse dissatisfaction, nursing leaders and nursing management have an opportunity to make changes that will enhance nurses satisfaction. This study was a replication of Atencio, Cohen, and Gorenburg's study (2003).

#### *Research Question*

Do environmental factors affect registered nurse retention?

#### *Organizing Framework*

The Organizational and Personal Factors and Outcomes developed by Moos (1981) and refined by Schaefer and Moos (1991) was used as the conceptual framework for the study.

## *Definition of Terms*

### *Conceptual Definitions*

1. Nursing environmental factors: those items in the work area that may affect any part of the nurses ability to perform their job. Some examples are: light, noise, communication, hours worked, etc.
2. Nurse turnover: the number of nurses that must be replaced compared to the number of nurses working in that same particular area.
3. Retention: the number of nurses who continue to work in a particular area compared to the overall number of nurses in the same area.
4. Burnout : a psychological syndrome of exhaustion, cynicism and inefficacy which is experienced in response to chronic job stressors (Maslach 2004).

### *Limitations*

A limitation of the study is the limited sample size. Nurses from only one hospital were invited to participate in the study, limiting the study participants and potential findings. Study findings represent only one area of the Midwest and may not present the views of nurses in other areas of the United States.

### *Assumptions*

It was assumed that study participants would respond to the questionnaire honestly.

### *Summary*

Nurse turnover creates negative issues at the unit and organizational levels including. poor patient outcomes, increased safety concerns, financial strains, and increased poor nurse morale. Understanding why nurses leave nursing as a career or change employers is the key to nurse retention. Identifying environmental factors that

may affect nurse retention allows healthcare employers an opportunity to implement changes that may increase job satisfaction and nurse retention.

## Chapter II

### *Review of the Literature*

#### *Introduction*

The nursing work environment is complex with many variables affecting the nurses perception and work satisfaction. The strongest predictor of nurse job dissatisfaction and intent to leave a job is personal stress related to the practice environment. The various causes of job stress include patient acuity, work schedules, poor physician /nurse interactions, new technology, staff shortages, unpredictable work flow or work load, and the perception that the care provided is unsafe, (Groff & Terhaar, 2010). What creates job stress for nurses on one unit may be different than what creates job stress on a different area or unit.

Current research findings indicate that the healthcare work environment affects nursing job satisfaction, which in turn negatively impacts nurse retention. The literature review consists of 12 articles focusing on environmental issues and the influence the healthcare environment has on staff nurse work satisfaction and retention.

The purpose of this study was to describe nurse's perceptions of autonomy, task orientation, and work pressure to better understand nurse turnover. This study was a replication of Atencio et al.'s study (2003).

#### *Organization of the Literature*

The literature review is divided into five sections. The first section is nurse

satisfaction factors; followed by the healthcare work environment; new registered nurse facility type; and last nurse executives perceptions.

### *Organizational Framework*

The conceptual framework used in the study was the Organizational and Personal Factors and Outcomes by Moos (1981) and refined by Schaefer and Moos (1991). In this model an organizational system was described as containing physical features, organizational structure and policies, suprapersonal and work-task factors, and the work climate. Physical features includes the nursing unit. Nurses working in a newer, more pleasant facility reported higher job satisfaction than nurses working in an older, dated facility. The design of the unit as well as the availability of a staff lounge also affected job satisfaction. The design of the unit impacted the nurses' ability to supervise other staff and patients, as well as ease in the presence of a staff lounge promotes relationships with fellow staff members, and nurses a convenient place to take breaks.

The organizational structure and policies includes the leadership or administration and the decision making process. Also included are the policies, guidelines and job positions. Centralized decision making and job formalization results in perceptions of lack of support, autonomy and clarity. Poorly staffed areas may create decreased nurse morale, autonomy , as well as decreased quality of relationships with co-workers and supervisors. Nursing care delivery systems (primary vs. team nursing) and shift (night) may also influence work stressors and nurses' job attitudes (Moos & Schaefer, 1987).

Suprapersonal and task factors are the group that forms to create the staff,

including the acuity of the patients on the unit. When individuals come together in a work group, they bring with them a variety of values, norms and skills. Because of selective mechanisms, such groups draw members in a non-random manner from the general employee population and produce distinctive blends of individual characteristics. The aggregate of the members' attributes (the suprapersonal environment) in part shapes the subculture that forms in a group and, in turn, the morale and behavior of its members (Moos & Schaefer, 1987).

The professional values and the average level of the nurse's education influence the work climate. The acuity level of the patients will also influence the work climate and the tasks or responsibilities of the staff. Patients with more complex medical issues require more demanding tasks and time. Nurses working in these areas usually report more autonomy in making nursing decisions.

The Organizational and Personal Factors and Outcomes model (Moos, 1981) suggests that the association between the organizational system, work morale and performance is affected by the personal system as well as work stressors. Work stressors and coping responses are an outcome of the dynamics between organizational and personal system factors. Work stressors combined with organizational and personal system factors can influence coping responses and employee outcomes. As a result, employees work morale and performance impact organizational outcomes. In the health care environment these organizational outcomes include quality of care and patient outcomes (Antencio et al., 2003).

### *Nursing Satisfaction*

Nurse's job satisfaction and perception of the work environment has been

associated with nurse retention. Identifying factors that influence registered nurse' job satisfaction and retention will enable healthcare organizations to implement strategies increasing job satisfaction and improving nurse retention.

The purpose of the quantitative study by Hayhurst, Saylor, and Stuenkel (2005) was to describe work environmental factors and the relationship to RN retention in a local county hospital. The sample included direct care RNs from various units, on all shifts at a large tertiary county hospital in Northern California. A total of 692 questionnaires were distributed, and 272 were returned.

In addition to a demographic questionnaire the researchers used the Moos' Work Environmental Scales (WESs) Form R, a 90-item true/false questionnaire designed to examine peer cohesion, supervisor support, autonomy and work pressure. The scores were compared between nurses who remained on perspective nursing units for 18 months and nurses that left during the 18 month period (Hayhurst et al., 2005).

The peer cohesion subscale of the WES reflected how supportive and friendly coworkers were toward each other. The results indicated that nurses who remained during the 18 months of the study reported higher perceptions of friendliness and support from coworkers than nurses who left during the 18 months of the study. Perceptions of peer cohesion were also higher for nurses who remained versus nurses that left during the study period (Hayhurst et al., 2005).

The supervisor support subscale reflects the level of support managers, and supervisors were perceived to possess by nurses. Nurses who stayed reported higher perceived supervisor support than nurses who left the unit, but scores were lower than the norm for both groups established by Moos (1994) for the Health Care Work Group.

The work pressure subscale measures the degree that work demands and time pressure dominate the job. Nurses who remained, reported a lower level of work pressure than nurses that left.

In conclusion, the variables analyzed had been previously shown to affect nurse's job satisfaction and commitment to remain in their present jobs. The nurses who remained on the units reported less work pressure, and greater peer cohesion, supervisor support and autonomy than nurses who left during the 18 month period.

Nurses may have elected to stay in current positions because of the social and collegial support even though other factors may not have been ideal. The data suggests that nurses aged 20-29 years old and nurses with less than 2 years experience were more likely to leave the unit. It was found that managers and leaders displaying a nurturing leadership style, physical presence, supportive attitudes toward staff problems, and an ability to resolve nurse's issues and concerns, may also increase nurse's job satisfaction. Managers empowering behavior is related to increased staff productivity and confidence and results in quality patient care, fewer complications and greater patient satisfaction (Hayhurst et al., 2005).

Focusing on a supportive work environment enables nurses to provide quality patient care, enhances self esteem, increases job satisfaction and provides cost savings to healthcare organizations. Multiple characteristics of the work environment may influence RNs' perceptions of job satisfaction and the decisions to remain on a unit or within an organization. Determining how to support a unit's staff may be a challenge for the manager, one that may change as staff and work environment changes (Hayhurst et al., 2005).

Another aspect of the environment was studied by Cohen, Stuenkel, and Nguyen (2009). First, acute care RNs' perceptions of the work environment was compared to established norms. Secondly, perceptions of the work environment for those RNs who left positions with those that remained, were compared to perceptions of the work environment by factors in the work environment that could be modified, then strategies were developed to improve job satisfaction and nurse retention. The sample included all RNs from inpatient acute care units at three large acute care hospitals and one county tertiary hospital in Northern California. The final combined sample consisted of 453 registered nurses. Survey packets were distributed to unit managers and were asked to give the packets to the nurses. Each survey packet included a letter explaining the study's purpose, a WES (Moos' Work Environment Scale) questionnaire, a café coupon and a stamped pre-addressed envelope to return the survey. The study was divided into 2 phases over a 5 year time period. The first phase assessed RNs' perceptions of the work environment using the WES. The second phase assessed the retention rate of the participants every 6 months for 2 years.

The WES consists of 10 specific work environment subscales categorized into three elements of the work environment. Mean scores for the 10 subscales were compared between the RNs who exited and nurses that remained during a 24 month period. The mean scores were also compared to norms set by Moos (1981) for the healthcare group. Six of the 10 WES subscales (involvement, peer cohesion, task orientation, clarity, control, and physical comfort) resulted in mean scores for both groups of RNs that were higher than those of the normative group. The findings suggested that supervisor support, work pressure, autonomy, and innovation may be

factors included in a positive healthy work environment, that could influence nurse retention. Nurses who left the organization or changed units had lower mean scores for innovation and supervisor support than RNs that remained. Results indicated that RNs who exited nursing units lacked support from nurse managers and perceived co-workers to be less receptive to new ideas. Differences in perceptions of the work environment were also noted by age groups. Staff nurses in the 20-39 year old age group perceived a higher degree of autonomy, than nurses in the 40-49 year age group (Cohen et al, 2009).

Targeting interventions to address the areas of supervisor support, innovation, autonomy and work pressure should be considered. Additional changes to enhance the environment, patient care delivery, and achieving Magnet status can have a powerful impact on healthcare organizations and the retention of registered nurses. The level of control and autonomy that RNs can exert affects job satisfaction levels. Registered nurses allowed to contribute to the decision- making process reported being more empowered. Managers can empower nurses by providing opportunities to be in work group, committees and projects that are pertinent to the practice environment. An ideal work environment embraces teamwork, promotes shared governance minimizes stressors, fosters group cohesion and autonomy, aims for manageable workloads, and encourages supervisor support (Cohen et al, 2009).

Another method that hospitals have investigated to increase nurse satisfaction are employment incentives. Benefits as incentives are related to job satisfaction, perceived stress, and intent to stay in the current job. The incentive system must be seen as desirable by the staff in order to impact retention (Wieck, Dols, & Northam, 2009).

The purpose of the Wieck et al.'s study (2009) was to determine nurse satisfaction with current employment incentives and to identify managerial actions that may decrease or delay RN turnover. A non-experimental correlation design was used to determine the relationship between the study variables. These variables included perceived stress, job satisfaction with incentives, floating to another unit, and intent to remain in the current position. In addition, identifying the most important work benefits to nurses, and generational differences in how nurses value benefits and incentives was examined.

General Systems Theory (1968) was the framework for the study. Managers identified nurse job satisfaction as an area that could be improved. Data collection was conducted at a 22 hospital healthcare system within 4 southern and western states. The non-unionized hospitals ranged in size from 12 beds to over 500 beds. All hospital employed nurses (N= 5,176) were e-mailed surveys with a response rate of 30% (N=1559). Respondents were divided into the following groups based on age: Millennial (born 1981-2000) N= 94, Generation X (born 1965-1980), N= 601, and Boomers (born 1946-1964) N = 864. There were four parts to the survey: demographic data, an incentives index measuring presence and importance of benefits, the perceived stress scale, and job related items including satisfaction levels and intent to stay (Wieck et al., 2009).

The Nurse Incentives Index included 33 benefits. Nurses identified and rated current benefits. An incentive was defined as an available benefit that the nurse desires. The index indicated the most important benefit to the nurses was the work environment. The work environment was described as a cohesive environment where people helped

each other, shared the workload and worked as a cohesive team. The least important benefits were luxury items, day care and subsidized transportation (Wieck et al., 2009).

The Perceived Stress Scale is a 10-item scale indicating the amount of stress in nurses' lives. Three-quarters of the nurses indicated lower levels of stress. Those nurses with high stress scores were significantly less satisfied with their jobs. Generation X nurses were more stressed than both the Boomers and the Millennial nurses. The results showed that the youngest nurses were the most stressed and the most likely to leave.

A single item was used to determine intent to stay. Respondents were asked: "How many more years do you plan on staying with your present employer?" The study findings indicated that Boomers intended to stay an additional 10.3 years while Generation X intended to stay 10 years and the Millennial nurses intended to remain 7 years (Wieck et al., 2009).

Satisfaction levels were measured by the summed score of four questions. When asked about satisfaction with their current position, 85.5% were generally or highly satisfied. Incentives satisfaction rated how happy or unhappy nurses were with their current job benefits. The findings indicated 78.5% of the nurses were moderately to extremely unhappy with incentives. The Millennial and Generation X nurses both ranked overtime and premium pay as the most important incentives. The Boomer's stressed pension and retirement benefits (Wieck et al., 2009).

Strategies suggested to improve retention based on this study nurse managers will need to: (a) improve the work environment by preparing leaders to build cohesive environments; (b) promote nurse involvement through task forces and speaker series;

(c) allow nurses to select from a menu of benefits; (d) provide mentoring for new graduates; and (e) pay attention to generational differences in regards to the work environment. Other suggestions included discontinuing floating nurses as the first line of coverage for the staffing needs (Wieck et al., 2009).

Nurses are expressing what they want in their jobs. Nurses want a positive work environment, freedom to select benefits, less stress for new registered nurses, and less floating to other units. Investing in the areas of nurse job satisfaction may lead to improved nurse retention.

#### *Work Environment*

The purpose of the study by Letvak and Buck (2008) was to determine what relationships exists between demographic variables, workplace variables, job stress, and personal health to work productivity and RNs' intent to remain in nursing. Data was collected by a cross-sectional survey between October 2005 and May 2006. Staff RNs from 3 hospitals in the southern part of the United States completed questionnaires. The first hospital was a 1000 bed tertiary care center, while the remaining two hospitals were 200 bed community based organizations. The 1000 bed hospital participants had a 13% (187) response rate, the second hospital group had a 39% (136) response rate and the third hospital group of participants had 31% (100) response rate. Survey data included, demographics, perceived quality of care, and inability to meet patient needs. The Health Professions Stress Inventory (Wolfgang, 1988), was used to measure job stress on a five point Likert Scale questions. RNs measured personal health Questionnaire (WPAI-GH) was used to measure work productivity.

The demographic results indicated most RNs worked full time (87%), were 40.15 years old and 12.29 years (mean) of nursing work experience. The average number of hours worked per day was 12.41 (57.9%) hours (12-hour day shift) or 12-hour night shift (27.6%). The mean number of patients cared for was 4.5 patients. The participants believed they were able to meet the needs of the patients 12.7% of the time and 73% believed the provided care was very good to excellent. Most nurses (93%) were satisfied to highly satisfied with their jobs (Letvak & Buck, 2008).

More than half (58%) of the nurse respondents were overweight resulting in an averaged BMI of 26.1. RNs reported an average health score of 5.72 out of a range of 1-8, one indicating the poorest health and 10 indicating the highest health. Nurses reported a (24.8%) job related injury in the previous 2 years, while 22.4% reported having a health problem. Some of the health problems included: (a) headaches (23.8%); (b) back pain (21.4%); (c) joint pain (16.7%); (d) anxiety (15.8%); (e) stomach problems (14.9%); (f) hypertension (13.9%); and (g) depression (12.4%). The most frequent reported job injuries were: (a) musculoskeletal (23.2%); (b) bruises (12.4%); (c) needle sticks (12.4%); and (d) biohazard exposure (6.4%). There were 75.3% RNs who worried occasionally too often about receiving a job injury. The mean job stress score was 47.9 on a 0 to 120 scale. Higher job stress scores were associated with: (a) sex (being female); (b) hours per day worked (the more hours worked, the higher the score); (c) working day shift; (d) worrying about an injury; and (e) inability to meet patient needs (Letvak & Buck, 2008).

Work productivity was measured by the WPAI-GH resulting in a mean score for work activity impairment of 12.71%. Significant variables included: (a) age; (b) years

worked as an RN; (c) job stress score; (d) quality of care provided; (e) having a health problem; or (f) having had a job injury. Work productivity was measured as an expression of work impairment. The number of years worked as an RN was associated with a decrease in perceived worker productivity (Letvak & Buck, 2008).

Intent to remain in hospital based nursing for the next 5 years was positive for 60% of respondents. Nurses unsure of their intent to stay were 25% and 15% plan on leaving. Significant variables included: age, years worked in nursing, quality of care provided, and job satisfaction. The most frequent reasons reported for leaving the nursing profession was job stress (28.4%) and retirement (16.3%) (Letvak & Buck, 2008).

If hospitals are to retain nurses, nurse leaders must advocate for work environment changes to decrease job stress, improve ability to provide quality patient care, and assure the health and safety of nurses. Nurse leaders need to continually assess for hazards within the work environments and provide support for those nurses who have been injured. Improving work environments may also delay the older RNs departure. The increased acuity of hospitalized patients and staffing shortages make job stress reduction unlikely for bedside RNs. Providing adequate staffing so quality of care can be given will improve nurse job satisfaction and increase nurse retention.

The purpose of Meraviglia et al.'s (2008) study was to implement 12 nurse-friendly (NF) criteria into hospital policies and practices creating a positive work environment. The criteria were identified by the Texas Nurses Association Professional Practice Committee with input from nurse leaders and a review of the literature. Some of the NF criteria included safety of the work environment, professional development, and

nurse recognition. The prediction was that changing the work environment to be nurse friendly would improve the nurse retention rate and the quality of patient care given.

The sample included 30 rural or small hospitals with an average daily census of less than 100 patients. The hospitals averaged 56 full time RNs and 16 LVNs (or LPNs). Prior to implementation of the NF criteria, 1150 nurses completed a survey to assess perception of the presence of NF criteria at their work facility. The survey consisted of a demographic portion and an Adapted-Revised Nursing Work Index (Meraviglia et al., 2008). Nurse sensitive QI data including pressure ulcer prevalence, patient falls prevalence, hospital-acquired pneumonia prevalence and urinary tract infections were collected. Surveys were completed before NF criteria was introduced, at 6-9 months after implementation of the criteria, and after designation as a NF Hospital. A hospital was designated as nurse friendly if scores improved in 9 out of the 12 criteria. Thirty hospitals participated and completed data at baseline, 26 at 6 months and 18 hospitals were designated as NF at the completion of the study.

Results from the study showed positive changes in nurses' perception of the work environment as indicated by changes in the survey. At the beginning of the project and again after implementation 6-9 months later, mean score rates for competitive wages were  $M=3.28$  to  $M=3.38$ , nurse recognition  $M=3.53$  to  $M=3.66$ , safety of work environment  $M=3.86$  to  $M=3.97$ , control of nursing practice  $M=3.88$  to  $M=3.98$ , as well as positive changes in other NF criteria. Improvement in nurse retention was indicated by nurse turnover rate (nurses who resigned by total number of nurses) reduction from 15.04% year 1, to 12.32% in year 3 (Meraviglia et al., 2008).

Quality Indicators showed improvement in all four areas. Prevalence of pressure ulcers decreased from 3% at baseline to 1.61% after NF designation. Prevalence of patient falls declined from 4.67% at baseline to 4% after designation. Hospital-acquired pneumonia decreased from 3.61% to 1.94% after designation. Urinary tract infection prevalence decreased from 5.91% at baseline to 2.43% after designation. Implementing nurse friendly criteria into the policies and practices of the hospital improved nurses' perception of the work environment. Improvement of the work environment positively affected nurse retention and quality of patient care.

The Institute of Medicine (2004) reported nurses' work environments contributed to negative patient outcomes as a result of organizational management practices, workforce deployment, work design and organizational culture. A similar report found that nurse staffing and managerial support were crucial to improving the quality of patient care, nurse dissatisfaction and nurse burnout. Research findings indicated that job and workplace characteristics played a key role in nurse satisfaction.

The purpose of the Hall, Doran, and Pink's (2008) study was to examine the impact that change interventions had on patient and nurse outcomes and on improving the nurse work environment. A quasi-experimental design was used to evaluate change interventions and the impact on patient and nurse outcomes. Baseline data was obtained on participating medical units, the change was implemented then data was obtained at the time of implementation, 3 months and 6 months after implementation.

Eight acute care hospitals in Ontario, Canada were randomly selected for inclusion into the study. The sample consisted of 16 unit managers, 1137 patients and 296 registered nurses. The same units, nurses and managers were surveyed at three and again

at six months. Participating RNs were given questionnaire packages, including surveys for demographic data, the McCloskey-Mueller Satisfaction Scale, Work Quality Index Scale, Perceived Effectiveness of Care Questionnaire, Perceptions of Nursing Leadership, Role Tension Index, and the Stress in General Scale. All questionnaires and scales had established reliability and validity. Participating unit nurses decided what changes to implement on individual units, focusing on the resource availability on patient care units. An adapted framework for quality improvement was used. Key factors that influence Nurses' work life or civility were identified for each unit. A plan was developed to improve the identified work life or civility issue. A nurse facilitator helped during the first 6 months as the change took place. Some change interventions included improving the linen supply, increasing the stock supply of patient medications and implementing a communication strategy for patient unit transfers (Hall et al., 2008).

Hall et.al. (2008) found that nurse's perceptions of work quality from the first data collection, implementation of the process improvement, and at 4 and 6 months was statistically significant ( $p=.0214$ ). Nurses on units with higher nurse to patient ratios reported lower perceptions of work quality, lower perceptions of nurse unit leadership and higher job stress. Nurses on units that practiced a team delivery of care approach reported higher perceptions of quality of care than nurses using total patient care model.

Nurse's age significantly influenced awareness of quality perceptions. Older nurses with higher levels of education had higher perceptions of unit leadership, lower perceptions of work quality and higher perceptions of job stress. Baccalaureate nurses reported higher levels of job stress. Nurses working as needed experienced higher levels of job satisfaction than part-time and full-time nurses.

The study findings indicated that change intervention can have a positive impact on nurse's perception of work and the work environments. The researchers also found that experienced older nurses had the most job stress, concern for the quality of the work experienced older nurses had the most job stress, concern for the quality of the work and the environment, and supported unit-based nursing leadership. Retention efforts should be directed at acknowledging and giving credit to experienced senior nurses (Hall et al., 2008).

#### *New Registered Nurses*

Research has found that during the first year of professional practice new registered nurses experience turnover rates around 35-61%. Increased turnover is costly to healthcare organizations, reduces quality care and increases nurse stress and burnout. The purpose of the Shermont and Krepcio (2006) study was to improve retention rates of newly employed nurses on three inpatient surgical units at Children's Hospital Boston. Of 25 nurses that were hired during the previous year for the three surgical units, 13 voluntarily terminated employment during the first 12 months of service. Nurse leaders on the surgical units at Children's Hospital Boston, discussed the first year of employment experiences with newly hired nurses. The nurses described experiencing a sense of isolation and lack of support from co-workers and nurse leaders. The leadership team consisted of nurse directors, managers, clinical nurse specialists, and nurse educators representing the surgical areas. They conducted a series of retreats with staff members to determine the reasons behind the high turnover rate and to develop strategies for improvement. The leadership team developed and implemented a program to improve the orientation process and change the culture on the surgical units.

The Partnership Unit-Preceptorship (PUP) program was developed to specifically address the unit culture issues identified by nurses and to improve the orientation process for new nurses. Orientation was customized to meet the individual learners needs and weekly support groups were established for new employees. Preceptors developed a support group, attended preceptor seminars and were no longer expected to assume patient assignments. All staff members were expected to participate in the orientation process by coaching, mentoring, and participating in bedside rounds. Veteran nurses began to create a more welcoming environment. Nurse leaders were more visible, facilitated weekly support groups, and weekly meetings with new employees and preceptors to monitor new employee progress.

As a result, the isolation formerly experienced by new employees was replaced by collegiality, partnership and shared accountability. The environmental and cultural changes dramatically improved retention rates. The previous turnover rate of 54% was decreased to 4% over a 2-year period. Nurses employed in the surgical areas prior to the PUP program implementation remained at a stable 8% turnover rate. Nurse satisfaction scores during and after implementation of the PUP program continued to improve on almost all survey items. Scores related to the PUP program included communicating, providing feedback, coaching, collaborating, and promoting critical thinking skills. Retaining new graduate nurses past the first year is a retention target as more nurses begin retiring (Shermont & Krepcio, 2006).

Studies have shown that several factors are included in new nurse registered nurses' job satisfaction, work stress, and turnover intentions. Beecroft, Dorey, and Wenten (2008) found that 30% of new registered nurses in the study had high turnover

intentions, predominantly related to disempowering work environments. Among new nurses, Bowles and Candela (2005) reported an actual turnover rate of 30% in the first year and 57% after 2 years. Supportive supervisors, positive relationships with co-workers, and the perception of a strong sense of community among staff influenced whether new nurses experienced burnout. Cho, Ketefian, Barkauskas, and Smith, (2003) found that a poor fit of new nurses personal standards for professional practice and those in the work settings was also associated with higher levels of burnout.

Burnout is described as a psychological syndrome of exhaustion, cynicism and inefficacy, which is experienced in response to chronic job stressors (Leiter & Maslach, 2004). Uncivil behavior is described as rude, discourteous, and displaying a lack of respect for others. Workplace incivility is defined as, low intensity deviant behavior with ambiguous intent to harm. In recent years, attention has been given to workplace incivility in the nursing profession.

The purpose of the study by Laschinger, Finegan and Wilk (2009) was to examine supportive practice environments, workplace incivility, and empowerment and the effect on new registered nurses experiences of burnout at work. A strong sense of community among staff influenced whether the new nurse experienced burnout.

Data collected was from 3180 staff nurses in a large Ontario provincial study that was designed to examine the effect of workplace empowerment on unit and individual nursing outcomes. Staff nurses from 271 inpatient unites received a questionnaire. Nurses (N=247) who had been in the profession for less than two years were selected as the new registered nurse sample. The new nurses averaged 28 years of age, with 1.5

years of nursing experience, and current work position of 1.5 years. The nurses were mostly female (94%), held a baccalaureate degree (65%), and worked full-time (65%) on medical-surgical units (59%) or critical care units (21%) (Laschinger et al., 2009).

Data collection was accomplished by using The Practice Environment Scale of the Nursing Work Index (NEW-PES) (Lake, 2002); 4 items from the ICU Nurse-Physician Questionnaire (Shortell, Rousseau, Gillies, Devers, & Simons, 1991); the 2-item Global Empowerment Scale (Laschinger et al., 2001); and the Emotional Exhaustion subscale of the Maslach Burnout Inventory-General Survey (Maslach, 2004). Results showed that new nurses perceived the work environment to have moderate levels of Magnet hospital characteristics ( $M=2.60$ ,  $SD=0.44$ ). New nurses also gave somewhat positive ratings of workplace civility on their units ( $M=3.66$ ,  $SD=7.88$ ). These nurses reported low levels of conflict among the nurses, but with a wide variation in the scores ( $M=2.33$ ,  $SD= 1.08$ ). Only 16.5% agreed or strongly agreed that there was a lot of conflict among nurses on their units. The new nurses also reported high levels of emotional exhaustion, with 62% scoring  $>3$ , the point for severe burnout. In this study, nurses did not report high levels of incivility or conflict on their units. This is contrary to anecdotal reports in the literature. The study provided perceptions of the working relationships among nursing unit staff (Laschinger et al., 2009).

The results of this study provide support for the link between supportive professional practice environments, workplace civility, empowerment, and new registered nurses' perception of burnout. New nurses may need to practice in an environment that allows them to practice according to professional standards learned

during their education, and free of uncivil behaviors between colleagues. Attention to the importance of these items may protect new nurses from burnout.

With the alarmingly high rates of new registered nurse departure rates within the first 12 months of employment, many hospitals are listening to new nurses' concerns. Some hospitals are providing mentoring programs and other resources for this vulnerable group. New registered nurses are also considering the resources and support employers are offering. In addition, some hospitals are seeking the elite Magnet status to attract and retain RNs.

### *Hospital Types*

Magnet designation has been accepted as the gold standard for nursing practice in recent years. In 2002, the Joint Commission recommended the adoption of Magnet hospital characteristics for hospitals. The Joint Commission found that Magnet hospitals foster a workplace that empowers and respects nurses. The number of Magnet organizations has doubled since fall of 2003. More than 230 exist and an additional 250 organizations are in the process of pursuing Magnet certification. Magnet hospitals have traditionally reported better outcomes for nurses and patients, higher nurse job satisfaction, more nurse autonomy and control over practice, and decreased nurse turnover than non-magnet hospitals. Registered nurses believe the essentials of a professional nursing environment include: positive nurse-physician relationships, autonomy, a culture of patient-centered concern, clinically competent coworkers, control over nursing practice, adequate staffing, educational support, and support of nursing managers.

The purpose of the study by Ulrich, Buerhaus, Donelan, Norman, and Dittus (2009), was to compare how registered nurses perceived the work environment and the nurse shortage based on the Magnet status of the organizations. Nurses were employed in organizations that had achieved Magnet status, were in the process of applying for Magnet recognition (In Process), or neither had Magnet recognition or was in the process of applying for recognition (non-Magnet).

A random sample of (3500) RNs currently licensed in the U.S. were drawn from a database. The RNs were sent a letter explaining the study and a questionnaire, which could also be completed online. A total of 1783 surveys were completed and returned for a 53% response rate. The survey responses identified those RNs employed at a Magnet organization (N=184), a non-Magnet organization (N=297), or at an organization in the process of applying for Magnet status (N=254). RNs responded to questions regarding perceptions about the current nurse shortage effects and the environments where employed based on Magnet status of the organization (Ulrich et al., 2009).

Registered nurses' views of the organization's priority of patient care were significant. In the Magnet and In-Process organizations, 45% of RNs believed that patient care is a priority. There were only 26% of RNs in non-Magnet organizations agreed that patient care was a priority (Ulrich et al., 2009).

Additional significant survey question results were in regards to opportunities to influence decisions about the workplace. Nurses (23%) in the In-Process organizations rated the opportunities as excellent or very good while 19% of Magnet and 14% of non-Magnet RNs rated the opportunities as good. Also noted were perceptions of the quality of relationships between nurses and other nurses, LPNs, physicians, support staff, nurse

managers and management. Nurses in Magnet organizations rated relationships as excellent or very good, 79% compared to 68% of RNs in non-Magnet organizations (Ulrich et al., 2009).

Recognition of accomplishments and work well done was rated as excellent or very good by 26% of RNs in the In-Process organizations compared to 20% in Magnet organizations, and 16% in non-Magnet organizations. Magnet organizations nurses (42%), In-Process (36%), and non-Magnet (24%) had observed increased efforts to retain nurses (Ulrich et al., 2009).

Finally, 85% of Magnet RNs reported they were very or somewhat satisfied overall. In-Process RNs (77%) reported they were very or somewhat satisfied overall. Only 75% of non-Magnet RNs were very or somewhat satisfied. When asked if they planned to leave the organization in the next 12 months to 3 years, 43% of non-Magnet nurses, 38% of Magnet nurses, and 32% of In-Process nurses reported such plans (Ulrich et al., 2009).

Registered nurses employed in hospitals pursuing Magnet recognition perceived better outcomes on specific factors than RNs employed in Magnet hospitals. One might conclude that Magnet hospitals may become complacent once they have achieved Magnet status. Ulrich et al.'s (2009) study indicates the process of applying for Magnet recognition has positive effects before Magnet recognition is ever achieved. There is growing evidence that links nurse work environments and nurse outcomes. The evidence is based on studies focusing on large urban hospitals, making it uncertain whether there is also a link between nurse work environments and nurse outcomes in rural hospitals.

The purpose of Baernholdt and Mark's (2009) study was to compare hospital

characteristics, nursing unit characteristics, nurse work environment, job satisfaction and turnover rates in rural and urban nursing units. Data was collected using a random sample of 97 hospitals located within the United States having 99 to 450 patient beds. Of the 97 hospitals, 22 were rural, 75 were urban, and 194 nursing units were represented. American Hospital Association (AHA) provided hospital characteristic data from an annual survey. Hospital appointed coordinators provided nursing unit characteristics data from RN surveys that were completed at three specific time points.

Study measures included hospital characteristics, nursing unit characteristics, the nurse work environment, and nurse outcomes. Hospital characteristics included hospital size, technological complexity, member of integrated network and magnet status. Nursing unit characteristics included size, work complexity, availability of support services and safety climate. The nurse work environment included staffing adequacy, which is defined by proportion of RNs, vacancy rate, experience, education, expertise and commitment to care. The nurse work environment also included professional practice, which measured decentralization, autonomy, and relational coordination. The nurse outcomes were nurse job satisfaction and nurse turnover (Baernholdt & Mark, 2009).

Data analysis of hospital characteristics in rural and urban hospitals showed few significant differences. Rural hospitals were technologically lower in complexity than urban hospitals. Magnet status and membership of an integrated network was not statistically significant between rural and urban hospitals. Nursing unit characteristics comparison of urban and rural hospitals revealed significantly smaller units in rural than urban hospitals (29.4 beds vs. 33.8 beds). Work complexity, availability of support services and safety climate were similar in the two groups (Baernholdt & Mark, 2009).

The three variables of the nurse work environment differed significantly. The proportion of RNs was lower in all rural hospitals compared with units in urban hospitals (50.1% vs. 59.6%). Rural hospitals units had a lower proportion of RNs with baccalaureate or higher degree than urban hospital units (27.2% vs. 35.3%). Vacancy rates were lower in nursing units in rural hospitals (8.5% vs. 12.7%). RNs experience, expertise, commitment to care, professional practice variables, decentralization, autonomy, and relational coordination were almost identical in the two groups (Baernholdt & Mark, 2009).

Nursing outcomes revealed that availability of support services, commitment to care and autonomy had a positive influence on nurse job satisfaction. A positive influence was found between turnover rate, work complexity and unit vacancy rates. Rural/urban location was not significantly associated with nurse job satisfaction.

In summary, nurses in Magnet hospitals or those seeking Magnet status are more satisfied than non-Magnet hospitals. However, it does not matter whether that hospital is in a rural or urban area. Hospitals meeting the nurses needs of autonomy, adequate staffing, support services, patient centered focus, collegial relationships, manager support, and educational support will have satisfied nurses. Nurse leaders need to be aware of nurses needs which will require ongoing investigation to improve job satisfaction and overall nurse retention rates.

### *Nurse Leaders*

The purpose of O'Brien-Pallas, Duffield, and Hayes (2006) study was to compare views of the importance of retention strategies between nurse executives and nurses who left the nursing profession. This study is a comparison of the results of two separate

studies. The two studies shared an item in the instrument, which was 53 items related to retention and reasons for leaving nursing.

The first study presented data from hospitals that responded to the National Review of Nursing Education (2001) survey. The study focused on questionnaire responses from 432 hospitals and charitable institution's nurse executives throughout Australia. The health facilities ranged in size from 10-900 patient beds. The questionnaire contained 53 items covering work aspects, structural aspects, team support, salary, employer care, and legal concerns. Questions were rated using a four point Likert Scale (O'Brien et al., 2006).

The second study examined the responses of 154 surveys in 2004 completed by nurses who had left the profession. The participants were recruited through the national press advertisement. To qualify, participants must have previously been a registered nurse and currently working in a position outside of nursing. Respondents were asked how important each of the 53 items, also identified in the first study, were in the decision to leave nursing. In this study, nurses that had left nursing answered questions about why they became a nurse, how long they were employed as a nurse, why they left nursing, and what position they moved to (O'Brien et al., 2006).

O'Brien et al. (2006) compared reasons nurses left the nursing profession with reasons nurse executives believed were important to retain nurses. The nurses who had left nursing rated the professional practice environment as the most important reason for leaving. Factors included in the professional practice environment were influence over the quality of care; levels of skill utilization; participation in policy development; overtime pay; and called in to work on scheduled days off. Nurse executives have

influence over these factors, which may influence nurses' intent to stay in the profession. Nurse executives' believed there were factors beyond their control such as those factors that influence society's perceptions of nursing are most important in nurses decisions to remain or leave the job or profession.

While nurse executives are usually charged with the responsibility of nurse retention, unit managers have the most knowledge of what is important to retain nurses. Nurse executives must support unit managers and efforts to retain nurses, as they are more aware of the nurses' desires. Appointing skilled unit managers to ensure appropriate retention strategies are followed is an important strategy. They must also provide resources and support services for nurses and unit managers. Retaining nurses has become more of a challenge with four different generations found in the workplace. Each of these generations has identified different needs and priorities in the workplace. The key to retaining nurses is to identify and meet the needs of each of these generations.

The purpose of the study by Wieck, Dols, and Landrum (2010) was a generational analysis of job satisfaction, work environment and desired management characteristics, in an effort to improve nurse retention. The study assessed what each generation of nurses wants and values from their managers and employers. The study will identify skills needed by nurse managers to address the needs and desires of the different generations of nurses, ultimately improving retention rates.

Data was collected over a 2-month period through an online survey that was voluntary and anonymous. The survey consisted of three parts: demographic questions, the Nurse Manager Desired Traits survey (Wieck et al., 2002), and the Nursing Work Index (Aiken & Patrician, 2000). Invitations for the online survey were prominently

displayed at 22 hospitals in a large multistate system. A response of 1773 usable surveys equaled a return rate of 31.9%. Of those respondents, 58% were over age 40 (Baby boomers), 35% were 27-40 years old (Generation X), and 7% were 18-26 years old (Millennial) (Wieck et al, 2010).

Results of "Desired Traits in a Manager," concluded that all of the generations want to work for a "people" person. The younger generation nurses would like a manager who is a team player, values employee participation on the work team, and offers praise and gratitude. The senior nurses also wanted a manager that was professional and respectful.

Next, the Nurse Work Index-Revised (Aiken & Patrician, 2000) was used to measure nurses' satisfaction with the hospital work environment. The mean score was 160.10 out of 228 if everyone was completely satisfied. All three groups were most satisfied with the nurse/physician relationships. The millennials (age 18-26 years) were least satisfied with the control over practice and organizational support. The Generation X group was least satisfied with autonomy and control over practice. While the baby boomer group was most satisfied in almost all areas, they were least satisfied with control over practice and satisfaction with work environment (Wieck et al, 2010).

Four questions were asked to measure nurse's perception of their safety. Nurses reported themselves in good physical condition (87-90% in each age group). Over 60% of all the nurses reported that they or their coworkers are in a position of being at risk for injury over 2 times per week. Only 13% of the millennial and baby boomers and 21% of the Generation X population, believed patients were at risk daily. These rates increased to 33.9% (millennial), 37.2% (Gen. X), and 28.8% (baby boomers), when asked if

patients were put at risk more than one to two times per week. One third of the millennial group of nurses planned to leave the job within 2 years. Of all the nurses surveyed, 61% planned to leave the job within 10 years. Between 2011 and 2015, 21% of the baby boomers plan to retire, and 33% plan to retire between 2016 and 2020.

Recommendations for retention of nurses begin with creating model managers. Hospitals must provide manager training and development. Managers must listen to staff and attend to the generational differences of staff nurses. They must also recognize critical factors in the work environment that affect nurse satisfaction and positive patient outcomes. Secondly, hospitals should empower staff nurse councils. Thirdly, hospitals should stabilize staffing and revamp incentives by eliminating the use of agency nurses, and creating a staff pool where nurses can sign up for premium pay. Hospitals may want to consider developing a menu of incentives for nurses to choose from, meet the outcome and receive the reward. Finally, the focus on patient safety is paramount (Wieck et al., 2010).

### *Summary*

In conclusion, hospital administrators and managers should build trust and cooperation by creating an environment of openness and acceptance. By providing an environment where nurses are valued and happy will give administration, managers and nurses what they are seeking; job satisfaction, improved registered nurse retention and positive patient outcomes.

## Chapter III

### *Methodology*

#### *Introduction*

The retention of hospital staff nurses has become a priority for nursing management. Turnover of nursing staff is in many ways costly to healthcare organizations and reduces the quality of care provided to patients. Turnover expenditures are up to two times a nurse's salary. The average national salary for a medical-surgical nurse is \$46, 832; resulting in a replacement cost of \$92,442 for one registered nurse. The replacement cost for a specialty nurse, may exceed \$145,000 (Atencio et al., 2003). When nursing units are staffed challenged, the ultimate cost may be displayed in patient safety and outcomes. Needleman, Buerhaus, Mattke, Stewart, and Zelevinsky (2002) and Atencio et al. (2003) reported that increased RN presence was associated with, shorter lengths of stays, lower rates of urinary tract infections, pneumonia, upper gastrointestinal bleeding, shock or cardiac rest, and failure to rescue. To reduce staff nurse turnover, nursing leadership must identify items that are staff dissatisfiers and lead to increased turnover. Job satisfaction and/or dissatisfaction is the strongest predictor of intent to remain or exit employment (Atencio et al., 2003)

#### *Research Question*

Is there a relationship between organizational environmental factors and registered nurse retention?

### *Population, Sample and Setting*

A 550 bed acute care facility in Indiana will serve as the study environment. The sample will include registered nurses employed for at least one year, in medical-surgical practice areas. The anticipated sample is (N=400) registered nurses representing 7 medical-surgical units. An explanation of the study requirements, and questionnaire will be provided to all potential participants. Exclusion requirements include PRN or outside agency nurses. Demographic data will also be collected. Participants will be surveyed every 6 months for 24 months tracking unit and hospital retention.

### *Protection of Human Rights*

Participating in research is paramount if nurses are to remain current on evidence based practice and to expand the knowledge of nursing science. Participation in the study is voluntary and all information will remain, anonymous, and confidential. There are no identified risks to participate in the study, nor repercussions or penalties inflicted on those choosing not to participate. Study approval will be sought from the Ball State University Institutional Review Board (IRB) as well as the Hospital, IRB.

### *Procedures*

Following the approval of the Ball State University and Hospital IRB a letter will be sent to the Hospital Chief Nursing Officer (CNO) explaining the study intent and seeking permission to conduct the study. Once approval received, information about the study and study instrument utilized will be presented to the participating hospital unit nursing leadership. Study information will be disseminated to staff nurses at unit meetings participating in the study. Participants will receive a packet containing a letter explaining the study, demographic and study questionnaires. A self-addressed stamped

envelope will be provided to return the study documents. Confidentiality will be maintained by coding the data and the data reported in the aggregate. The individual data will be secured in a locked file in the researcher's office at the Ball State School of Nursing and destroyed at the completion of the study. A statistician will collate the demographic questionnaire and study instrument responses.

### *Research Design*

The study design will be longitudinal and descriptive in nature. A longitudinal design examines changes in the same subjects over an extended period of time. A descriptive design is used to gain more information about characteristics within a particular field of study (Burns & Grove, 2005). All respondents in the study will be followed every 6 months for 24 months to track unit and hospital retention.

### *Instruments*

A demographic and background characteristic survey, as well as the Insel and Moos' Work Environment Scale (WES) Form R (Moos, 1994) are self administered surveys and will be included in the packet. The Insel and Moos' Work Environmental Scales (WES) Form R, is a 90 item true/false questionnaire designed to examine peer cohesion, supervisor support, autonomy, and work pressure. The WES measures 3 dimensions of the work environment: personal growth/goal orientation, relationships, and system maintenance/ system change. Each dimension is divided into several subscales (Antencio et al., 2003). The study focuses on the personal growth and goal orientation subscales of autonomy, task orientation and work pressure. The autonomy subscale measures the extent to which nurses are encouraged to make their own decisions and be self-sufficient. The task orientation subscale measures the degree or emphasis on good

planning, efficiency and the ability to get the job done. The work pressure subscale measures the degree that work demands and time pressure dominates the job. The Insel and Moos' Work Environmental Scale (WES) Form R has been tested for validity and reliability (Antencio et al., 2003; Flarey, 1991, 1993; Moos, 1994).

#### *Data Analysis*

Analysis of collected data will determine if relationships exist between the work environment and demographic data. Descriptive and multivariate statistics will be used to summarize the demographic and work environment data. Relationships among the WES subscales and the demographic data will be examined using t-tests and ANOVA analysis to test for differences between the groups (Antencio et al., 2003).

#### *Summary*

As revealed by the review of the literature, the work environment may be a cause of job dissatisfaction leading to turnover by hospital staff nurses. The intent of the study will be to measure nurses' perceptions of factors in the work environment. The results of the study may aid nurse leaders in identifying the perceived negative environmental work factors, as well as those environmental work factors that are perceived as positive. The implications for nurse managers are to implement changes to create a healthy work environment that will recruit and retain nurses (Ritter, 2011).

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