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Comparing Generational Differences in Job Satisfaction and Retention (Anticipated Turnover) Among Nurses Working in Magnet Versus Non-Magnet Designated Hospitals

Laura E. Cima
laura.cima@student.shu.edu

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**Comparing Generational Differences in Job Satisfaction and
Retention (Anticipated Turnover) Among Nurses Working in Magnet
Versus Non-Magnet Designated Hospitals**

By

Laura E. Cima

Dissertation Committee:

Dr. Deborah A. DeLuca, M.S., JD (Chair)
Dr. Terrence F. Cahill, Ed.D., FACHE
Dr. Raju K. Parasher

Submitted in partial fulfillment of the requirement for the degree of

Doctor of Philosophy in Health Sciences

Seton Hall University

2014

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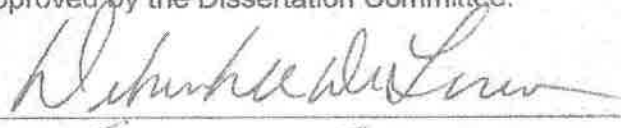
By


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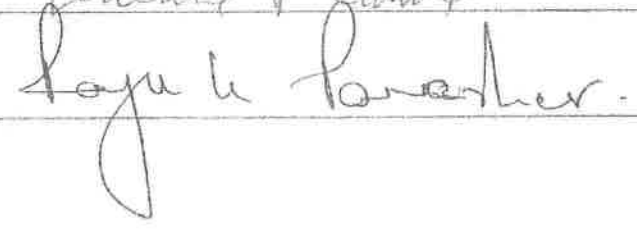
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- Raju Parasher, MSc, EdD, PT

Approved by the Dissertation Committee:

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DEDICATION

This dissertation is dedicated in memory of my mother, Gladys Mae Harper, who instilled in me as a child the value of education among many other values. Always with me in spirit, her teachings guide me in every walk of life. She was a remarkable woman with many talents and far more appreciated than she knew. Her memory lives on in many.

*“Nursing as an art: and if it is to be made an art,
it requires an exclusive devotion as hard a preparation,
as any painter’s or sculptor’s work;
for what is having to do with dead canvas or dead marble,
compared with having to do with the living body,
the temple of God’s spirit?
It is one of the Fine Arts;
I had almost said the finest of Fine Arts.”*

– Florence Nightingale

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ABSTRACT

Comparing Generational Differences in Job Satisfaction and Retention (Anticipated Turnover) Among Nurses Working in Magnet Versus Non-Magnet Designated Hospitals

Laura E. Cima

Seton Hall University, 2014

Dissertation Chair: Dr. Deborah DeLuca, M.S., J. D.

Background and Purpose of the Study: Experts in the nursing profession predict a catastrophic nursing shortage by 2025. Nursing shortages have devastating effects on hospitals from a quality of care, patient and family satisfaction and financial perspectives. Given these issues, the most logical approach to this shortage is retention of nurses rather than recruitment. The Magnet designation is one mechanism to retain nursing staff.

Another phenomenon exists within the work environment that makes this shortage different from others. Currently, there are four generations of nurses working in the healthcare environment. Each of these generational cohorts has different values and beliefs that have been shaped by significant events in their generational timeframe. These values and beliefs affect their attitude about work and life in general. Although there are a number of research studies regarding influence of the Magnet designation on job satisfaction, there are no studies that evaluate these attributes from the context of the generational cohorts as well.

Purpose: The purpose of this study was to determine if there were differences in job satisfaction as measured by positive work attributes and potential turnover among the four generations of nurses working in Magnet and non-Magnet designated hospitals.

Methods: Registered professional nurses in eight New Jersey hospitals (four Magnet and four non-Magnet designated hospitals) were surveyed using the Nursing Work Index – Revised which measures positive work attributes and the Anticipated Turnover Scale which measures potential turnover

Keywords: Magnet designation, Anticipated Turnover Scale, Nurse Work Index Revised, retention, burnout, turnover, job satisfaction, autonomy, work environment.

Chapter I

INTRODUCTION

Background of the Problem

Healthcare is a commodity that everyone will likely access at some point in their lives. It is not unlikely that hospitalization may be a necessary component to address one's healthcare needs. In a hospital setting, regardless of whether the care is being given by a nurse's aide, licensed practical nurse, technician or other type of healthcare provider, registered nurses must supervise that care according to the governing agencies of acute care hospitals at all times (New Jersey Department of Health and Senior Services, p. 140). However, if there are not enough nurses (professional registered nurses) to meet the community's healthcare needs, hospitalized patients are placed in a very vulnerable and sometimes dangerous position as care is unsupervised by knowledgeable professionals, or in the worst case, care is neglected.

The nursing workforce is comprised of registered nurses (RNs), licensed practical nurses (LPNs), technicians with a variety of titles and nursing assistants (NAs). The latter two are categorized by healthcare agencies as unlicensed assistive personnel (UAPs). RNs comprise the largest component of the workforce and are involved in almost every facet of the healthcare delivery system (Buerhaus, Staiger, Auerbach, 2009). In particular, registered nurses are the foundation of healthcare in the hospital system. They are caring for the patients 24 hours a day, 7 days a week. It is this group of professionals that will identify a potential complication and initiate an intervention, sometimes several hours before the physician even sees the patient. Registered

nurses are a necessary commodity to providing quality, safe healthcare; yet in the future, the availability of this resource is threatened.

A severe nursing shortage is predicted by several nursing researchers. Should that occur, the impact upon the availability of a key component of the healthcare workforce will be significant as the numbers of registered nurses will not be available and the greatest impact will be borne by the patient. It is therefore critical that a nursing shortage be avoided in the future.

The United States was previously in the midst of a nursing shortage which existed for several years beginning in 1998 (Acree, 2006; Auerbach, Buerhaus, Staiger, 2007; Lavoie-Tremblay, Leclerc, Marchionni, Drevniok, 2010; Rother & Lavizzo-Mourney, 2009). It has only been since the decline of the economy that the shortage has progressively eased as more women have returned to the workforce or delaying retirement (Staiger, D.O., Auerbach, D.I., Buerhaus, P.I. 2012; Auerbach, Buerhaus, Staiger, 2014). Staiger and colleagues (2012) refer to this phenomenon as a “countercyclical nature of the health care industry” in which job gains occur faster in recessionary times than in non-recessionary times. However, the authors also note that this is return to the workforce a temporary situation which is likely to reverse during the next several years. More than one third of the increase in supply of RNs can be attributed to the unemployment rate during the same period. As the recovery of jobs takes hold and the unemployment rate drops, their analysis suggests that the withdrawal of RNs from the workforce will occur at the same time that a large number of Baby Boomer RNs will retire; hence another shortage (Staiger, et al, 2012).

Not only will the United States experience a shortage of nurses but shortages have been documented throughout the world. According to the World Health Organization (WHO), nurses comprise up to 40% to 50% of the global health care workforce (Stanley, 2010). As in the United States, this global shortage is also expected to peak with the expected retirement of a large number of Baby Boomer nurses (Lavoie-Tremblay, et al., 2010). Unlike previous shortages that were resolved with salary increases and increasing the number of graduate nurses, this shortage is of a different nature and predicted to be very critical by 2020 (Buerhaus, et al., 2009). Estimates of 260,000 to 1 million fulltime equivalents in nurses will be needed by 2025 (Orsilini-Hain & Malone, 2007; Rother & Lavizzo-Mourey, 2009; Staiger, et al., 2010). Undoubtedly, acute care hospitals will bear the most severe consequences of such a shortage since the majority of nurses' work in these hospital environments (Buerhaus, et al, 2009).

Nursing is the largest healthcare occupation with registered nurses holding 2.6 million jobs in 2008. Hospitals employ 60% of registered nurses (Bureau of Labor Statistics, 2009). Although, the existing recession has tempered the shortage, it is estimated that the shortage will reach 500,000 by 2025 (Buerhaus, et al, 2009; Barlow and Zangaro, 2010). Hospital environments cannot afford to be without an adequate number of nurses considering the changes that are taking place in society; specifically, the growth of the aging population.

Historically, nursing shortages are cyclical in nature and there have been several shortages in the past. Peter Buerhaus, a renowned nursing researcher and expert in nursing economics, and his colleagues posit that shortages develop because not

enough nurses are willing to work in hospitals at the current wage rate (Buerhaus, et al., 2009). The demand for labor will depend on the wage rate, just as demand for other goods and services are contingent upon prices. An increase in the price of that item in demand will typically reduce the demand for the item. In essence, the demand for nursing will not be resolved until some type of consensus is reached regarding wages. Disequilibrium in the labor market occurs when labor demand exceeds labor work supply. Competition among employers to obtain the limited number of nurses will eventually raise the wage rate creating a new level of equilibrium. When the wage rate increases and reaches a new equilibrium, at the point where the new labor demand curve crosses the short-run supply curve, the shortage disappears (Buerhaus, et al., 2009). This has been a repeated economic cycle in healthcare.

As the population ages the incidence of developing more chronic diseases increase as does the number of hospital admissions which in turn increases the demand for registered nurses (Gordon, 2005; Hirschhorn, West, Hill, Cleary, Hewlett, 2010). For example, in an environment where elderly healthcare recipients are most vulnerable with multiple co-morbid conditions and ever changing healthcare technological advances, these hospitalized individuals are dependent upon registered nurses who are monitoring and rendering care in an acute care hospital on a 24-hour basis. This phenomenon of the growing elderly population coupled with the customary healthcare needs throughout the life cycle of the population will put great demands on the healthcare system for qualified personnel. The need to prevent a cataclysmic shortage of registered nurses is paramount. Concurrent to these issues, the demand for registered nurses has increased in non-hospital work environments such as

freestanding surgical centers, freestanding diagnostic or procedural centers. If a crisis evolves due to a lack of a sufficient number of nurses to meet the increased demand, then hospitals will not be able to function at full service; beds will be closed, emergency rooms and critical care units on diverting patients to other facilities and people in need of healthcare services will not be able to readily access the care they need (Gordon, 2005; Hassmiller & Cozine, 2006).

Turnover of nurses in hospitals has an impact on work group processes as well as patient care. Work group processes are the mechanisms that inhibit or enable the ability of the team to combine their capabilities and behavior. Cohesion, work group learning and relational coordination are the domains of affective, cognitive and behavioral work group processes (Bae, Mark, Fried, 2010). The overall attraction and bond among members of a group is typically referred to as the workgroup cohesion; whereas the patterns of communication and spontaneous coordination of efforts assess the relational coordination (Bae, et al., 2010). These processes are negatively impacted as those who remain may feel abandoned and question their own motives for remaining. Turnover may trigger additional turnover or detachment from the environment (Bae, et al., 2010).

Turnover of nurses affects patient length of stay in that the absence of team members or the introduction of new team members creates inefficiencies in patient care due to short staffing or new members who are in the process of learning. Patient satisfaction is impacted as these inefficiencies increase (Bae, et al., 2010).

This consequence of short staffing as it relates to increased patient safety issues has been well documented (Aiken, Clarke, Sloane, Lake, Cheney, 2008; Aiken Clarke,

Sloane, Sochalski, Silber, 2002; Alvarez & Fitzpatrick, 2007; Gordon, 2005; Lake & Friese, 2006). Short staffing results in higher patient mortality due to failure to rescue, increased in patient falls, increased hospital acquired infections and increased medication errors (Aiken, et al., 2002; Alvarez & Fitzpatrick, 2007; Gordon, 2005). Any of these issues can cause hospitals millions of dollars in liability for hospitals.

Patient satisfaction includes components such as responsiveness of the nursing staff, friendliness and courtesy (Bae, et. al., 2010). Patient satisfaction is also negatively impacted by short staffing as a result of turnover of staff. In recent years, the Center for Medicare and Medicaid Services (CMS) has adopted reimbursement policies focused on patient satisfaction. As of fiscal year 2008, the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) offers hospitals the opportunity to increase their revenues by 2% based on their HCAHPS scores (Centers for Medicare & Medicaid Services, 2012). For the first time, patients' perceptions of the quality of their care are now tied to hospital reimbursement. The nurse communication section has the highest impact on patients' overall satisfaction with the hospital and their likeliness to recommend the hospital to others. In addition, this data will be published (www.hospital.compare.org) allowing patients to compare patient satisfaction in hospitals (Shaffer, & Tuttas, 2008). The literature indicates that patients report higher patient satisfaction in hospitals with positive work environments for nurses and lower nurse to patient ratios (Kutney-Lee, McHugh, Sloane, Cimiotti, Flynn, Felber-Neff, Aiken, 2009). Positive nursing work environments lead to higher job satisfaction and higher retention of nurses.

Given these concerns, the concept of nurse job satisfaction leading to retention becomes particularly important to ensure the appropriate number of registered nurses are available to provide care into the future. One of the key issues to understanding the problem of nurse retention is the state of the workers in the workplace. Nurses are aging as well as the general population and it is predicted that between 2015 and 2020, a large number of Baby Boomers will be retiring and leaving the workforce. Nursing educators are also aging and will retire within the next couple of years thereby exacerbating the current shortage of nursing educators and further limiting the numbers of students who enter into nursing programs. In addition, often not taken into consideration in job satisfaction of nurses, is the fact that there are currently four generations of nurses practicing in the workplace (Coombs & Barriball, 2006; Zemke, Raines, Filiczkak, 2000). The workplace preferences of these four generations differ, often creating conflict, and consequently, turnover (Fogg, 2009; Hahn, 2009; Wong, Gardiner, Lang, Coulon, 2008). It is important that managerial staff consider these differences in planning their job satisfaction and retention strategies. All of these issues contribute to the rate of turnover.

Many healthcare facilities have put into place strategies to avoid nursing shortages in the future. Strategies such as offering flexible scheduling options, tuition reimbursement, or improving nurse-physician working relationships are among a few. One such strategy employed by hospital leadership is acquiring the Magnet award designation.

As cited by Lake and Friese (2006), there are a number of national organizations that have concluded that improving the nursing working environment is critical for

addressing shortages. That is, shortages of registered nurses in hospital work environments. One factor which has served to publicly denote positive work environments is the designation of a facility as a Magnet hospital by the American Nurses Credentialing Center (ANCC). The Magnet award is theorized to confirm the components of a positive work environment in which nurses practice, thus leading to increased retention of experienced nurses (American Nurses Credentialing Center, 2005). The Magnet award in the nursing profession has become synonymous with good places to work, high nurse satisfaction, quality care and good patient outcomes leading to reduced turnover among nursing staff (Aiken, et al., 2005; Lake & Friese, 2006). The criteria for the Magnet award revolved around standards originally titled the 14 Forces of Magnetism (Appendix A). As of 2009, these 14 Forces were collapsed into 5 standards (Appendix A).

Statement of the Problem

The existence of four generations currently in the workforce has added a dimension of complexity to the work environment and implementation of these and other strategies. The Veterans, Baby Boomers, Generation Xers and Millennials have different beliefs and values pertaining to the work environment and these strategies may not appeal to each of the generational cohorts (Arsenault, 2004; Zemke, Raines, Filipczak, 2000). In order for hospitals to be successful in improving work environments leading to nurse job satisfaction and retention, administrators will need to understand the needs of the different generations and design retention programs and implement strategies to meet these needs.

This study will compare job satisfaction and anticipated turnover among the four generations of nurses currently working in hospitals. An added dimension: differentiating responses between Magnet designated and non-Magnet designated hospitals will serve to demonstrate if there is indeed a difference in job satisfaction and anticipated turnover among these generations of nurses in these hospital environments.

Theoretical Framework

There are two theoretical frameworks that are the foundation of this study. The first is based on the work of Rosebeth Moss Kanter (1977, 1993) and her theory of organizational empowerment. Kanter suggested that individuals engage in different behaviors depending on if certain structural supports exist. These supports are described as power and opportunity. Power refers to the ability to mobilize resources, information and support for one's position in the organization to successfully achieve the job at hand. Lines of power come from informal and formal systems that exist in the organization. Central to the overall organization are specific jobs which are highly visible and constructed in such a way that there is a lot of flexibility and discretion in how work is accomplished and contain a high portion of formal power. Informal power results from positive interpersonal work relationships with peers, superiors and subordinates in the workplace. These relationships as described lead to effective outcomes and alliances. According to this model, employees who experience this type of work setting are more motivated, more productive and have higher job satisfaction and thus greater organizational commitment (Spence Lachinger, Finegan, 2005). In addition, as cited by Kupperschmidt (2006), Marion and Bartholomew theorized that

effective intergenerational relationships as community, meaning that there is a desire for a sense of community at work and the expectation is that conflict should be addressed gracefully. If not, conflict will result in turnover (Kupperschmidt, 2006).

Consistent with the concepts of Kanter's theoretical framework is the Magnet award criteria for hospitals which addresses empowerment, opportunity and collaboration. This is a program designed by the American Nurses Credentialing Center (ANCC) as a mechanism to reward hospitals that have been successful in recruitment and retention of nursing staff and is the highest award that can be given to a hospital by the ANCC. The concept of Magnet hospitals was born out of a research study done by the American Academy of Nursing (AAN). This research was designed around two purposes: 1) identify the important issues in hospital nursing services that attracted and retained professional nurses; and 2) identify models of nursing practice that supported professional and personal satisfaction in staff nurses to the extent that recruitment and retention were enhanced. As a result of this study, 41 hospitals across the nation were identified that succeeded in creating environments or organizational cultures conducive to recruitment and retention (McKibbin, 1990). These attributes were later translated into the "Forces of Magnetism" (Appendices A, B). Nursing divisions in Magnet designated hospitals have developed and implemented strategies that address leadership, nursing practice, policies and procedures, self-governance structures, educational opportunities as a mechanism to retain and recruit professional nurses. It has not been determined however if these Forces of Magnetism appeal to all four of the generations that exist in today's workplace and therefore will continue to improve job satisfaction and consequently, retention of nursing staff.

The second theoretical framework is generational cohort theory. As stated by D'Amato and Herzfeldt (2008), a generational cohort is defined as a group of people who were born at the same time and experienced specific historical events at the same point in their development. Cohort theory posits that growing up within the same timeframe and experiencing these historical events leads to similar values and opinions. Generations develop values and attitudes about work and life in general based on the political, economic and social events that took place during their developmental years. These attitudes, values and opinions are expressed in the workplace as well as in other venues. Six characteristics help to determine the scope of generations: 1) a traumatic or formative event that occurred such as a war, assassination of a leader or a significant act of terrorism such as the events of September 11, 2001; 2) a dramatic shift in demography that influences the distribution of society's resources; 3) an interval that connects a generation to success or failure such as the Great Depression; 4) the creation of a "sacred space" that sustains a collective memory within the generation such as Woodstock; 5) mentors or heroes that give impetus and voice to the generation's work such as Martin Luther King or John F. Kennedy; and, 6) the work of individuals who know and support each other such as Bill Gates (Sessa, Kabacoff, Deal, Brown, 2007).

Noted below is a visual conceptual framework that has been adapted from the literature:

Figure 1 Visual Conceptual Framework

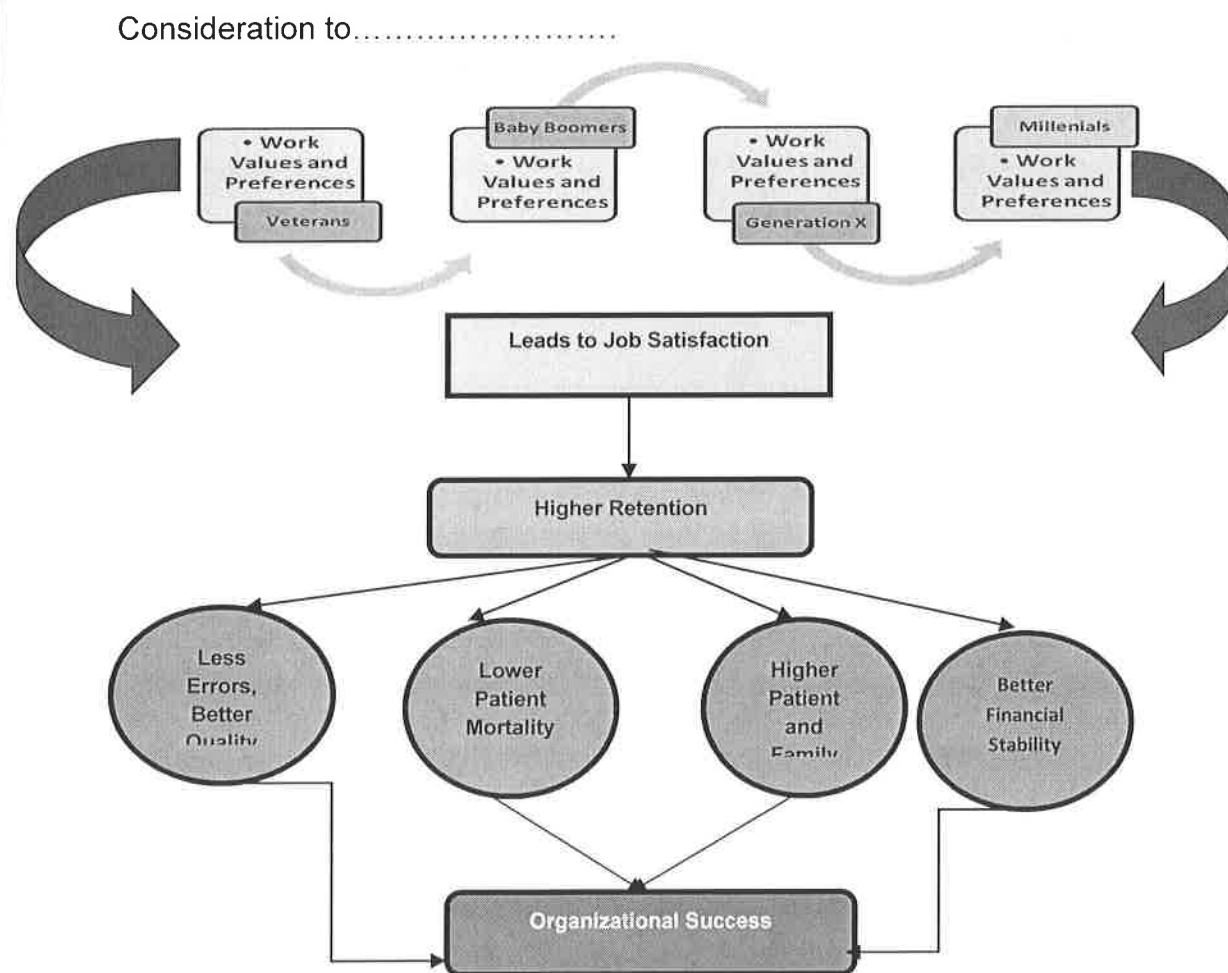


Figure 1. Principal Investigator Self-Developed Visual Conceptual Framework of Generational Differences and Impact on Job Satisfaction and Ultimately, Organizational Success. Based on the works of Aiken, et. al, 2002; Kupperschmidt, 2006; D'Amato & Herzfeldt, 2008; Weingarten, 2009; Zemke, et al, 2000

Purpose of the Study

The purpose of this initial pilot study is two-fold. The first is to determine if there are differences in nurses' perceptions of job satisfaction with regards to workplace environment and attributes as measured by the Nursing Work Index Revised (Appendix B) among the different generations of nurses working in Magnet designated and non-Magnet designated hospitals. The second purpose is to determine if there are differences in nurses' perceptions of anticipated turnover as measured by the Anticipated Turnover Scale (Appendix C) among the different generations of nurses working in Magnet designated versus non-Magnet designated hospitals

It is important for administration in organizations to understand the differences in these four generations. The Veterans have already started to retire, the Baby Boomers are next. The two generations remaining in the workplace are the Generation Xers and the Millennials. The generational differences in their preferences, their values and opinions create workplace conflict, job dissatisfaction which results in turnover (Apostolidis & Polifroni, 2006; Smola & Sutton; 2002). The differences in values and beliefs of the generations are addressed in the Chapter II, Literature Review.

Research Questions and Hypotheses

There are 7 research questions and corresponding hypotheses associated with this study; five with four subsets. The first three research questions explore nurses' perceptions of job satisfaction among the 4 generation of practitioners, first in total and then across all 4 generations, and then in each individual generation divide, or in the magnet designated hospitals. The reason for this exploration is because Magnet

designated hospitals are assumed in the literature to have a better workplace environment than non-designated hospitals by virtue of their designation (Aiken, L.H., Clarke, S.P., Sloane, D.M., Lake, E.T., Cheney, T., 2008; Aiken, L. H., Havens, D.S., Sloane, D.M., 2000; Lake, E.T. & Friese, C.R., 2006). More specifically: These questions and corresponding hypotheses are:

RQ1. Is there a significant difference ($p = \leq 0.05$) in job satisfaction with regards to workplace environment and attributes as measured by the Nursing Work Index-Revised (NWI-R) among all nurses who work in Magnet designated hospitals versus non-Magnet designated hospitals?

The corresponding hypothesis is:

H1. High job satisfaction among all nurses with regards to workplace environment and attributes as measured by the Nursing Work Index Revised will be higher in Magnet designated versus non-Magnet hospitals. Significance is determined at $P < 0.05$.

The literature speaks clearly to the idea that where job satisfaction among nurses is concerned in general, job satisfaction among nurses working in Magnet designated hospitals is asserted to be higher than job satisfaction among similarly positioned nurses in non-Magnet designated institutions (Aiken, et al., 2005; Lake & Friese, 2006; Trinkhoff, et al., 2010).

Following these findings and extending the analogy to specific demographic characteristics of nurses in the workplace currently, the second set of questions are based on the very simple idea that one may not automatically assume, where job

satisfaction and nurse retention is concerned, that it is possible to predict an individual's disposition to remain in a particular healthcare setting, for example, a Magnet-designated hospital, merely because it is designated as such, if certain characteristics are known about the individual. Therefore, the following research questions and hypotheses are based on the data collected from the demographic survey along with the Nursing Work Index – Revised, which allows analysis at a greater level of understanding among and between groups of nurses about their levels of job satisfaction as follows:

RQ2. Is there a significant difference ($p = \leq 0.05$) in job satisfaction with regards to workplace environment and attributes as measured by the Nursing Work Index Revised (NWI-R) among the four generations of registered nurses?

RQ2a. Is there a significant difference ($p = \leq 0.05$) in job satisfaction with regards to workplace environment and attributes as measured by the Nursing Work Index Revised (NWI-R) among the Veterans generation of registered nurses?

RQ2b. Is there a significant difference ($p = \leq 0.05$) in job satisfaction with regards to workplace environment and attributes as measured by the Nursing Work Index Revised (NWI-R) among the Baby Boomer generation of registered nurses?

RQ2c. Is there a significant difference ($p = \leq 0.05$) in job satisfaction with regards to workplace environment and attributes as measured by the Nursing Work Index Revised (NWI-R) among the Generation X generation of registered nurses?

RQ2d. Is there a significant difference ($p = \leq 0.05$) in job satisfaction with regards to workplace environment and attributes as measured by the Nursing Work Index Revised (NWI-R) among the Millennial generation of registered nurses?

The corresponding hypotheses are:

H2. High job satisfaction with regards to workplace environment and attributes as measured by the Nursing Work Index Revised (NWI-R) will correlate with the four generations of nurses. Significance is determined at $p < 0.5$.

H2a. High job satisfaction with regards to workplace environment and attributes as measured by the Nursing Work Index Revised (NWI-R) will correlate with the Veterans generation of nurses. Significance is determined at $p < 0.5$.

H2b. High job satisfaction with regards to workplace environment and attributes as measured by the Nursing Work Index Revised (NWI-R) will correlate with the Baby Boomer generation of nurses. Significance is determined at $p < 0.5$.

H2c. High job satisfaction with regards to workplace environment and attributes as measured by the Nursing Work Index Revised (NWI-R) will correlate with the Generation X generation of nurses. Significance is determined at $p < 0.5$.

H2d. High job satisfaction with regards to workplace environment and attributes as measured by the Nursing Work Index Revised (NWI-R) will correlate with the Millennial generation of nurses. Significance is determined at $p < 0.5$.

The next question is designed to determine if differences in job satisfaction with regards to workplace environment and attributes among the generations are influenced by the Magnet designation of the hospital. Research question 3 is noted below.

RQ3. Is there a significance difference ($p = \leq 0.5$) in job satisfaction with regards to workplace environment and attributes as measured by the Nursing Work Index-Revised (NWI-R) among the four generations of registered nurses working in Magnet versus non-Magnet designated hospitals?

RQ3a. Is there a significance difference ($p = \leq 0.5$) in job satisfaction with regards to workplace environment and attributes as measured by the Nursing Work Index-Revised (NWI-R) among the Veterans generation of registered nurses working in Magnet versus non-Magnet designated hospitals?

RQ3b. Is there a significance difference ($p = \leq 0.5$) in job satisfaction with regards to workplace environment and attributes as measured by the Nursing Work Index-Revised (NWI-R) among the Baby Boomer generation of registered nurses working in Magnet versus non-Magnet designated hospitals?

RQ3c. Is there a significance difference ($p = \leq 0.5$) in job satisfaction with regards to workplace environment and attributes as measured by the Nursing Work Index-Revised (NWI-R) among the Generation X generation of registered nurses working in Magnet versus non-Magnet designated hospitals?

RQ3d. Is there a significance difference ($p = \leq 0.5$) in job satisfaction with regards to workplace environment and attributes as measured by the Nursing Work Index-

Revised (NWI-R) among the Millennial generation of registered nurses working in Magnet versus non-Magnet designated hospitals?

The corresponding hypotheses are:

H3. There will be a significant difference in job satisfaction with regards to workplace environment and attributes as measured by the Nursing Work Index Revised (NWI-R) among the four generations of registered nurses working in Magnet designated and non-Magnet designated hospitals. Significance is determined at $p = \leq 0.05$.

H3a. There will be a significant difference in job satisfaction with regards to workplace environment and attributes as measured by the Nursing Work Index Revised (NWI-R) among the Veterans generation of registered nurses working in Magnet designated and non-Magnet designated hospitals. Significance is determined at $p = \leq 0.05$.

H3b. There will be a significant difference in job satisfaction with regards to workplace environment and attributes as measured by the Nursing Work Index Revised (NWI-R) among the Baby Boomer generation of registered nurses working in Magnet designated and non-Magnet designated hospitals. Significance is determined at $p = \leq 0.05$.

H3c. There will be a significant difference in job satisfaction with regards to workplace environment and attributes as measured by the Nursing Work Index Revised (NWI-R) among the Generation X generation of registered nurses working

in Magnet designated and non-Magnet designated hospitals. Significance is determined at $p = \leq 0.05$.

H3d. There will be a significant difference in job satisfaction with regards to workplace environment and attributes as measured by the Nursing Work Index Revised (NWI-R) among the Millennial generation of registered nurses working in Magnet designated and non-Magnet designated hospitals. Significance is determined at $p = \leq 0.05$.

These next research questions and hypotheses assume that an inverse relationship exists between turnover rates and retention rates in the profession as discussed in the literature, such that if turnover is high, retention is low, and vice versa. Turnover is largely influenced by the work environment attributes (Brady-Schwartz, D.D., 2005; Hsiao-Chen, Tang, 2002; Shader, K.; Broome, M.; Broome, C.; West, M.E.; Nash, M., 2001).

RQ4. Is there a significant difference ($p = \leq 0.05$) in anticipated turnover (retention) as measured by the Anticipated Turnover Scale (ATS) among all registered nurses working Magnet designated versus non-Magnet designated hospitals?

The corresponding hypothesis is:

H4. There will be a significant difference in anticipated turnover (retention) as measured by the Anticipated Turnover Scale (ATS) among all registered nurses working in Magnet designated and non-Magnet designated hospitals. Significance is determined at $p = \leq 0.05$.

This hypothesis is again based on the established literature which indicates that among the older generations of practitioners, among the Veterans and the Baby Boomer generations, both job retention and job satisfaction should be higher when the workplace environment is perceived as favorable, as the literature seems to assert of Magnet designated hospitals (Arsenault, P.M., 2004; Sessa, V.I. Kabacoff, R.I., Deal, J., Brown, 2007; Zemke, R., Raines, C., Filipczak, B., 1999). Accordingly, for more recent generations that expect to receive more from their employers and environments to achieve job satisfaction and retention, the designation of type of institution should have a lesser role (Trinkoff, A. M., Johabtgen, M., Stoor, C.L., Han, K., Liang, Y., Gurses, A. P., Hopkinson, S., 2010; Ponte, P.R. & Wolf, G.A., 2010; Zemke, et. al, 1999).

Research question 5 is designed to determine if there is a difference in anticipated turnover as measured by the Anticipated Turnover Scale among the generations of registered nurses currently working. Question 5 and the associated hypothesis examines this relationship across all 4 groups of generations of nurses in total whereas question 6 looks at the relationship among each of the 4 generations independently. The literature addresses the lack of loyalty to organizations among the Generation X group, and how quickly they will make a change in employment if their needs are not met. In addition, the Millennial group values flexible working schedules but, like the Generation Xers, they distrust organizations having seen their parents downsized (Arsenault, 2004; Kupperschmidt, 2000; Smola & Sutton, 2002; Zemke, et. al, 1999).

RQ5 Is there a significant difference ($p \leq 0.05$) among the four generations of registered nurses in anticipated turnover as measured by the Anticipated Turnover Scale?

RQ5a. Is there a significant difference ($p \leq 0.05$) among the Veterans generation of registered nurses in anticipated turnover (as measured by the Anticipated Turnover Scale)?

RQ5b. Is there a significant difference ($p \leq 0.05$) among the Baby Boomer generation of registered nurses in anticipated turnover as measured by the Anticipated Turnover Scale?

RQ5c. Is there a significant difference ($p \leq 0.05$) among the Generation X generation of registered nurses in anticipated turnover as measured by the Anticipated Turnover Scale?

RQ5c. Is there a significant difference ($p \leq 0.05$) among the Generation X generation of registered nurses in anticipated turnover as measured by the Anticipated Turnover Scale?

RQ5d. Is there a significant difference ($p \leq 0.05$) among the Millennial generation of registered nurses in anticipated turnover as measured by the Anticipated Turnover Scale?

The corresponding hypotheses are:

H5. There will be a significant difference between anticipated turnover as measured by the Anticipated Turnover Scale among the four generations of registered nurses. Significance is determined at $p \leq 0.05$.

H5a. There will be a significant difference between anticipated turnover as measured by the Anticipated Turnover Scale among the Veterans generation of registered nurses. Significance is determined at $p = \leq 0.05$.

H5b. There will be a significant difference between anticipated turnover as measured by the Anticipated Turnover Scale among the Baby Boomer generation of registered nurses. Significance is determined at $p = \leq 0.05$.

H5c. There will be a significant difference between anticipated turnover as measured by the Anticipated Turnover Scale among the Generation X generation registered nurses. Significance is determined at $p = \leq 0.05$.

H5d. There will be a significant difference between anticipated turnover as measured by the Anticipated Turnover Scale among the Millennial generation of registered nurses Significance is determined at $p = \leq 0.05$.

RQ6 Is there a significant difference ($p - \leq 0.05$) among the four generations of registered nurses in anticipated turnover as measured by the Anticipated Turnover Scale working in Magnet and non-Magnet designated hospitals?

RQ6a. Is there a significant difference ($p - \leq 0.05$) among the Veterans generation of registered nurses in anticipated turnover (as measured by the Anticipated Turnover Scale working in Magnet and non-Magnet designated hospitals?

RQ6b. Is there a significant difference ($p - \leq 0.05$) among the Baby Boomer generation of registered nurses in anticipated turnover as measured by the

Anticipated Turnover Scale working in Magnet and non-Magnet designated hospitals?

RQ6c. Is there a significant difference ($p \leq 0.05$) among the Generation X generation of registered nurses in anticipated turnover as measured by the Anticipated Turnover Scale working in Magnet and non-Magnet designated hospitals?

RQ6c. Is there a significant difference ($p \leq 0.05$) among the Generation X generation of registered nurses in anticipated turnover as measured by the Anticipated Turnover Scale working in Magnet and non-Magnet designated hospitals?

RQ6d. Is there a significant difference ($p \leq 0.05$) among the Millennial generation of registered nurses in anticipated turnover as measured by the Anticipated Turnover Scale working in Magnet and non-Magnet designated hospitals?

The corresponding hypotheses are:

H6. There will be a significant difference between anticipated turnover as measured by the Anticipated Turnover Scale among the four generations of registered nurses working in Magnet and non-Magnet designated hospitals. Significance is determined at $p \leq 0.05$.

H6a. There will be a significant difference between anticipated turnover as measured by the Anticipated Turnover Scale among the Veterans generation of

registered nurses working in Magnet and non-Magnet designated hospitals.

Significance is determined at $p = \leq 0.05$.

H6b. There will be a significant difference between anticipated turnover as measured by the Anticipated Turnover Scale among the Baby Boomer generation of registered nurses working in Magnet and non-Magnet designated hospitals. Significance is determined at $p = \leq 0.05$.

H6c. There will be a significant difference between anticipated turnover as measured by the Anticipated Turnover Scale among the Generation X generation registered nurses working in Magnet and non-Magnet designated hospitals. Significance is determined at $p = \leq 0.05$.

H5d. There will be a significant difference between anticipated turnover as measured by the Anticipated Turnover Scale among the Millennial generation of registered nurses working in Magnet and non-Magnet designated hospitals. Significance is determined at $p = \leq 0.05$.

The last question addresses the issue of actual turnover rates by generation, particularly directed at addressing the assertion made in the literature that having a Magnet designation is a significant factor influencing the attractiveness to and retention rates of nursing personnel more than an institution that does not have a Magnet designation (Lake & Friese, 2000; Ponte & Wolf, 2010). Retention rates and turnover rates are inversely related. Very simply stated, the less the turnover rates, the higher the retention rates. The Department of Labor recommends the following formula to determine the employee turnover rate: Divide the number of terminations during the

time period by the total number of employees during that time period and multiply this number by 100 (United States Department of Labor, 2005). The question follows:

RQ7. Is there a significant difference ($p = \leq 0.05$) in *actual* nursing turnover rates among all four generations of nurses working in Magnet designated and non-Magnet designated hospitals?

RQ7a. Is there a significant difference ($p = \leq 0.05$) in *actual* nursing turnover rates among the Veteran generations nurses working in Magnet designated and non-Magnet designated hospitals?

RQ7b. Is there a significant difference ($p = \leq 0.05$) in *actual* nursing turnover rates among the Baby Boomer generations of nurses working in Magnet designated and non-Magnet designated hospitals?

RQ7c. Is there a significant difference ($p = \leq 0.05$) in *actual* nursing turnover rates among the Generation X generation of nurses working in Magnet designated and non-Magnet designated hospitals?

RQ7d. Is there a significant difference ($p = \leq 0.05$) in *actual* nursing turnover rates among the Millennial generation of nurses working in Magnet designated and non-Magnet designated hospitals?

The hypotheses associated with question 7:

H7: There will be a significant difference in *actual* nurse turnover rates among the four generations of nurses working in Magnet designated and non-Magnet designated hospitals. Significance is determined at $p \leq 0.05$.

H7a. There will be a significant difference in *actual* nurse turnover rates among the Veterans generation nurses in Magnet designated and non-Magnet designated hospitals. Significance is determined at $p \leq 0.05$.

H7b. There will be a significant difference in *actual* nurse turnover rates among the Baby Boomer generation nurses in Magnet designated and non-Magnet designated hospitals. Significance is determined at $p \leq 0.05$.

H7c. There will be a significant difference in *actual* nurse turnover rates among the Generation X nurses in Magnet designated and non-Magnet designated hospitals. Significance is determined at $p \leq 0.05$.

H7d. There will be a significant difference in *actual* nurse turnover rates among the Millennial generation nurses in Magnet designated and non-Magnet designated hospitals. Significance is determined at $p \leq 0.05$

It is important for administration in organizations to understand the differences these four generations and the generation specific issues that promote job satisfaction and thus retention. The Veterans have already started to retire; the Baby Boomers are next. The two generations dominating the workplace will be the Generation Xers and the Millennials. The generational differences in their preferences, their values and opinions create workplace conflict and job dissatisfaction which results in turnover (Apostolidis & Polifroni, 2006).

Significance of the Study

A critical nursing shortage is predicted in the next decade (Acree, 2006; Auerbach, Buerhaus, Staiger, 2007; Lavoie-Tremblay, Leclerc, Marchionni, Drevniok, 2010; Rother & Lavizzo-Mourney, 2009). A critical nursing shortage can have serious

implications for society, patients and hospitals. The significance of this study to the healthcare registered nurse workforce is to identify the impact of the beliefs and values about the work environment between the four generations currently in the workforce. Should perceptions among the generations differ significantly, the administrations can modify retention strategies to appeal more to these four generations. Secondly, this study will serve to validate (or possibly negate) the value and appeal of the Magnet designation which reflects the work environment among the four generations of registered nurses.

Definition of Terms

The following definitions are provided to ensure uniformity and understanding of these terms throughout the study.

Job Satisfaction – a sense of inner fulfillment and pride achieved when performing a particular job (Kupperschmidt, 2006).

Generational cohort- a group of people who were born at the same time and experienced specific historical events (D'Amato & Herzfeldt, 2008; Zemke, et al., 2000)

Magnet Designated – a hospital that has been designated as a Magnet Hospital by the American Nurse Credentialing Center (American Nurses Credentialing Center, 2005).

Turnover – the aggregate of worker replacement in a given time period (Buerhaus, et. al, 2008).

Retention – the condition of keeping nurses employed in the same facility (Buerhaus, et. al, 2009).

Registered Professional Nurse (RN) – any registered nurse who has been licensed by the state to practice nursing (New Jersey Office of the Attorney General, 2008).

Research Design

This proposed research design is cross-sectional, descriptive and correlational. Cross-sectional studies are used when data will be collected at one point in time to prevent testing or history effects; in this case data, will be collected from staff nurses in both Magnet-designated and non-Magnet designated hospitals (dissertation study) in New Jersey at one point in time. Groups of staff nurses will be sought that may or may not be equivalent and may differ from each other in many ways in addition to difference between specific conditions (Portney & Watkins, 2000). Demographic characteristics of the sample will be organized and summarized through a descriptive design. In this case, the specific condition is the work environments of the hospitals selected for the study. Descriptive or exploratory research is designed to document conditions, attitudes, or characteristics of groups of individuals. These types of designs focus on the relationships among specific factors (Portney & Watkins, 2000).

Additionally, a correlational design will be used to explore if relationships exist between levels of perception of workplace satisfaction and generations in the workplace, and if workplace satisfaction levels correlate linearly (predictably) with job satisfaction across and among 4 different generations of staff nurse employees in

Magnet vs. Non-Magnet designated hospitals. According to Polit and Hungler (1995), the purpose of a descriptive correlational design is to describe variables and examine relationships among them. Not attempt is made to control or manipulate the variables. The decision to use a descriptive and correlational design is supported by phenomena of individuals or groups of individuals under study, while a correlational design is appropriate for use in describing the nature of existing relationships among variables

Chapter II

REVIEW OF THE RELEVANT LITERATURE

The State of the Nursing Workforce

There is a reported a global shortage of nurses needed to meet the increasing demands of the American healthcare system (Aiken, Clarke, Sloane, Lake, Cheney, 2006; Jasper, 2005). In the United States, the deficit in the supply of nurses has existed for ten years and is touted to currently be the longest shortage in fifty years (Auerbach, Buerhaus, Staiger, 2007). These shortages tend to fluctuate in severity and tend to be cyclical; influenced by issues such as changes in the economy. For example, in a recent article in *Health Affairs* (2014), David Auerbach and colleagues report that the nursing workforce has grown from 2000 to 2012 by 2.9% resulting in 500,000 more nurses than originally predicted (Auerbach, Buerhaus, Staiger, 2014).

The ease of this shortage is due to three factors. The first is that US nursing education programs have doubled over the last decade. Secondly, there is a lingering slow economic growth following a recession during 2007 to 2009 which has kept some nurses in the workforce who may have otherwise left in a more rapid recovery. Thirdly, the slow economic growth is attributed for the temporary delay in the retirement of older nurses. The number of nurses still employed at the age of sixty-nine was 9% in the period of 1969-1990. From 1991-2012 that number has risen to 24%. This is a significant issue as 40% of the nurses in the workforce are between 49 and 67 years of age; the retirement of the Baby Boomer generation will have an overwhelming effect on the supply of nurses (Auerbach, et al., 2014). Should these trends continue the

shortage of nurses, particularly in the United States could be substantially reduced. However, these authors also caution that the demand for nurses will continue to increase because of the coverage expansions of the Affordable Care Act, physician shortages requiring alternative providers in some regions such as Advanced Practice Nurses, and population growth resulting in more demand for care, and the aging of the population resulting in more chronic diseases and hospitalizations (Auerbach, et al, 2014).

Looking specifically at New Jersey there is currently a shortage of 17% of nurses. As of 2012, there were 117,346 nurses in the state. Eighty-nine percent were employed in nursing. The average age of a nurse at this time was 50 and the average age of a nursing educator was 56. At this continued rate of new nursing graduates in New Jersey, it is estimated that by the year 2020, there will be a 40,000 deficit in nurses to meet the healthcare needs. To meet these demands of an aging population and accompanying chronic diseases in the state, the number of graduate nurses would have to triple from 2,000 to 6,000 (Robert Wood Johnson Foundation, 2012). As of 2013, New Jersey had 33.4 RNs per capita, ranking 46th in the nation (Health Resources and Services Administration Bureau of Health Professions National Center for Health Workers Analysis, 2013).

Given these statistics, the need to retain registered nurses in hospitals in New Jersey becomes even more paramount to the health of the state's population. Success in retention can only be achieved through understanding the issues that affect job satisfaction leading to retention of nursing staff.

Impact of Job Satisfaction

Given this information, this shortage is not the first, and in all probability will not be the last as history has demonstrated. As cited by Heather Janieszewski Goodin (2003). in the past, shortages of the 1970s and 1980s were caused by dissatisfaction with working conditions and lack of professional autonomy (Alspach, 2000). This current shortage of nurses however, has similar fueling issues but also some significantly different precipitating factors and will not likely be resolved as simply. In the past, common resolutions used to increase nursing services involved increasing salaries of nurses or increasing enrollments in nursing education programs (Aiken, et al., 2006). Unfortunately, today the complexity of the environment and factors affecting the shortage are not that simple. Issues such as restructuring, re-engineering, nurse-physician work relationships, inflexible work schedules, poor management, lack of appropriate infrastructure are a few having a significant negative impact on nursing retention. One key factor in this shortage is the hospital work environment which promotes either job satisfaction or job dissatisfaction. Contributing factors to negative work environments are described as environments where there is a lack of recognition for work specificity, environments that are physically exhausting with taxing schedules, unmanageable work assignments, chaotic, high stress, lacking teamwork and collegiality, inadequate resources, and nonexistent training, mentoring and supervision. Nurses in these environments suffer burnout and are cynical and inefficient (Gordon, 2005). These type of environments are causing nurses to leave their jobs or in some cases, the profession (Buerhaus, Staiger, Auerbach, 2009; Coffman, 2008; Gordon, 2005; Tinkerhoff, et al., 2010). In addition, some researchers have classified clinical

nursing as a high-risk profession, largely due to these poor work environments which result in arduous physical work, stress and burnout (Hofmeyer & Marek, 2008).

Conversely, positive work environments where nurses are respected, have adequate staffing, resources, flexible scheduling and self-governance result in lower turnover and high retention rates of nursing staff. Most importantly these environments produce high patient satisfaction and result in safer care given to patients (Aiken, et al, 2006; Aiken, Silber, Sochalski, 2007; Buerhaus, et al., 2009; Lake & Friese, 2006; Levtak & Buck, 2008).

One mechanism to identify positive work environments for nurses in acute care hospitals is the Magnet designation. However, the impact of the external and internal issues perpetuating nursing shortages may be too challenging for even Magnet designated hospitals in the future.

External Factors to the Organization

There are external and internal factors to work environments that affect shortages of nurses. Understanding these factors is important to taking actions to avoiding a catastrophic nursing shortage which has become a serious concern for healthcare policy makers (Aiken, et. al, 2006; Buerhaus, et al., 2009). As indicated, the existing nursing shortage is predicted to reach critical proportions in the next decade. This shortage, unlike other shortages that have occurred, promises to be one of the most challenging issues to date in the healthcare industry mainly due to factors that are not within policy makers' control such as the aging of the population, including nurses (Auerbach, et. al, 2007; Buerhaus, et. al, 2009). Having insufficient numbers of

registered nurses threatens the very core of the healthcare institution, with the potential to erode the quality of care, result in higher patient mortality, decrease market share and eventually impact the financial stability of the organization. As financial stability worsens, staffing becomes an issue, and the turnover further increases as workloads for those left behind increase and are perceived to be unsafe. As Linda Aiken and colleagues point out, if shortages of nursing personnel are not addressed or more importantly prevented, the consequences can be devastating to taxpayers, providers and patients. Cancelled surgeries, closing of inpatient hospital units, decreased inpatient and family satisfaction, limited access to care, and increased errors resulting in endangered patient safety are only a few of the potential ramifications (Aiken, et. al, 2002; Aiken, et al., 2006; Alvarez & Fitzpatrick, 2007; Needleman, Buerhaus, Stewart, Zelvinsky, Mattke, 2006; Rosenstein, 2008).

These issues can have serious consequences for patients due to short staffing and compromised patient safety. Access to care for those in need also becomes an issue as hospitals are unable to staff outpatient programs and inpatient beds eventually resulting in closure of programs or facilities. Some hospitals in the country are experiencing some or all of these issues now. For example, beds have been closed due to the lack of registered nurses to staff these beds (American Hospital Association, 2006).

There are atypical factors that have led to the shortage that pose even more of an urgent concern to improve work environments and job satisfaction for existing registered nurses, such as the aging of the workforce. In previous shortages, retention was not as much of a concern. If turnover increased, hospitals simply replaced

experienced staff with new graduates. A concentrated focus on recruitment of nurses versus retention is no longer an acceptable approach because enrollments in nursing education programs are decreasing and the value of experienced nurses is recognized as enhancing quality of care (Buerhaus, et al., 2009; Gordon, 2005).

The Aging Registered Nurse Workforce.

The registered nurse workforce is aging and has been steadily aging since 1993. In the 1960s and 1970s, the nursing profession experienced a very large influx of women into the profession (Janiszewski Goodin, 2003). Consequently, one in three registered nurses was under the age of 30. Since then, the number of registered nurses under this age has gradually decreased (Auerbach, et. al., 2007; Buerhaus, et al, 2009; Hassmiller & Cozine, 2005). In addition, new career opportunities for women in the 1980s and 1990s led to fewer women entering the nursing profession (Janiszewski Goodin, 2003). In 2006, less than one RN in eight was under the age of 30 and the average age of RNs increased from 42 in 2000 to the projected age of 45.4 in 2010 (Auerbach, et. al., 2007; Buerhaus, et al, 2009; Hassmiller & Cozine, 2005). Furthermore, it is predicted that the average age of an RN will peak in 2016 at 45.9 (Auerbach, et al., 2007). Assuming an age of 65 for retirement, this means that an unprecedented number of RNs will be retiring in the next two decades, creating a substantial number of vacancies in hospitals (Buerhaus, et al., 2009). This nursing phenomenon, coupled with younger nurses leaving the work environment due to job dissatisfaction, will present a considerable challenge to hospital administrators.

Authors warn of another phenomenon known as the “expertise gap” which results because of multiple factors: a) an increase of retirements among experienced nurses, b) an increased ratio of new graduates with less than 1 year of experience, c) a shortage of nurse educators and d) insufficient research to determine best practices in nursing education (Orsolini-Hain & Malone, 2007). These factors, if not addressed through retention strategies of more experienced nurses, will result in a healthcare environment that has sicker patients, shorter lengths of stay with intensified and accelerated care processes, and a majority of novice nurses. This “expertise gap” will occur in an environment that offers growing scrutiny by the public and private payers, regulators and others that create safety and financial incentives to ensure that appropriate care is rendered at the bedside (Hill, Cleary, Hewlett, Bleich, Davis, Hatcher, 2010; Hirschhorn, et. al, 2010).

Compounding this dilemma of potential majority of younger, inexperienced nurses, nurses leaving the nursing profession and older experienced nurses retiring is another factor: an increased demand for nurses throughout the healthcare system.

Increasing Demand for Nurses

There is also an increasing demand for nurses in the non-hospital based healthcare sector. This demand is created by society's demand for healthcare which spans from birth to death (Buerhaus, et al., 2009). Demand for healthcare is influenced by demographics of the populations such as changes in health, size and age of the population. For example, older populations need different types of programs than younger populations. As individuals age, they have more hospitalizations and

more chronic diseases requiring hospital inpatient beds to be staffed. In contrast, areas where populations are younger may require more ambulatory programs focused on prevention to meet their needs.

It has been estimated that 587,000 to 1 million new jobs are expected to be created for registered nurses between 2006 and 2016. This is a rate of job growth that is much higher than in other occupations. The creation of half a million to a million jobs coupled with the large number of retirements from an aging nursing workforce is predicted to result in a critical nursing shortage over the next decade. Estimates of the nursing shortage vary from 300,000 to 1 million by 2025 (Aiken, Cheung, Olds, 2009; Orsolini-Hain, & Malone, 2007).

The organization of the healthcare system also affects the demand for healthcare. A system that is focused on acute and chronic care versus prevention will influence the demand for care (Buerhaus, et al., 2009; Daschele, Greenberger, Lambrew, 2008; Hirschhorn, et. al, 2010). Acute and chronic conditions which are usually reimbursed by payers require more healthcare resources. A system built on prevention and wellness uses fewer resources, but the utilization of any healthcare resource for preventative measures in the absence of illness is a difficult justification to payers.

Social cultural factors also play a role in healthcare demand. As the United States becomes more diversified in its population, differences in cultures will affect the amount of healthcare demanded, the composition of healthcare services and the manner in which these services are provided (Buerhaus, et al., 2009). Addressing cultural issues in the delivery of care may require more effort and time by the nurses,

who are at the forefront of patient encounters. Along with nurses, the general population is older and expected to live longer. As people age, there is more chronic diseases expected and thus more hospitalizations causing and increased demand in nursing care, as previously stated.

Economics of the country will certainly influence the demand. As income increases, there are more dollars that will be spent on healthcare. Conversely, as income declines and unemployment rises, individuals will either use emergency rooms as their first line of care or present with illnesses in advanced stages inevitably requiring more healthcare resources (Buerhaus, et al., 2009; Daschele, et al., 2008; Hofmeyer & Marck, 2008; Needleman, et al., 2006). In geographical areas that are affluent, healthcare expense may not be as much of an issue as it is in areas that are poverty stricken and medically underserved.

As the demand for healthcare increases, so does the demand for registered nurses because they are the first line of defense as previously stated. This demand becomes difficult to meet in consideration of the aging of nurse educators, shortages of nurse educators and enrollments of large numbers of students in nursing education programs.

Shortage of Nursing Educators.

A number of factors impacting the current nursing shortage are beyond the organization's control, but equally troublesome in the shortage of nurses and therefore heightens the need to improve job satisfaction and retain nurses. In addition to an aging workforce and an increased demand for nurses is the shortage of nursing faculty

(also aging) which makes it difficult for schools to accept more students (Buerhaus, et al., 2009; Flynn, 2007; Gordon, 2005). Peter Buerhaus and colleagues (2009) note the average age of a nurse educator in 2001 was 56.2 years. In the same time period, the average age of retirement was 62.5. Projecting to 2023, this means that a sizeable percentage of the nurse educator workforce would be retiring without an equivalent number of faculty replacements in the next decade, which is rapidly approaching (Buerhaus, et al., 2009, pg. 138). This creates a deficit in human capital required to educate individuals to fill projected gaps. So concerning is this issue that Johnson & Johnson began a campaign in 2002, and has spent millions of dollars to both increase the capacity for nursing education and increase the recruitment of individuals into the profession of nursing (Auerbach, et al., 2006).

Nationally, all levels of nursing programs turned away more than 147,000 qualified applicants (43.7%) in 2005 due to insufficient faculty. It is projected that a 40% annual increase is needed in nursing enrollments to meet the needs of replacing just retiring RNs without consideration to the demands for additional nurses (Orsolini-Hain & Malone, 2007). One of the greatest challenges in the healthcare system will be attracting nurses to teaching positions in the midst of a nursing shortage. Other factors contributing to shortages of nursing educators are unrealistic expectations non-competitive salaries and lack of support (Janiszewski Goodin, 2003).

In summary, there are a number of external factors that affect the current nursing shortage over which the individual organization has no control. An aging workforce with impending retirement, shortages of educators limiting the entry of new, younger nurses into the profession, and the increased demands for nurses come together creating

challenges for hospital administrators. In this type of healthcare environment, it is important for administrators to focus their attention on those factors within their control: those that shape the work environment and result in higher job satisfaction for nurses and thus retention of nurses.

Internal Work Environment Factors

Internal work environment factors are those that are directly within the control of the organization to develop a positive or negative work environment. The internal hospital healthcare environment is changing in response to the external changes. The key question is how the hospital administration chooses to respond to these challenges. This response with either increase or decrease job satisfaction of nurses.

Economic pressures such as changing Medicare and Medicaid reimbursement, a steady increase in the numbers of uninsured patients and the influx of managed care have created dynamic and challenging work environments. Managed care has typically resulted in less reimbursement for organizations, leading to cost cutting efforts affecting personnel and/or supplies or other resources. Under the managed care system, the reimbursement is the same for the sickest or the healthiest patients (Buerhaus, 2009; Daschele, et al., 2008; Institute of Medicine, 2000). These forces converge to create the pressing incentive among administrators to keep expenses down while continuing to increase revenues (Buerhaus, 2009; Daschele, et al., 2008). This initiative becomes a very high priority, sometimes at the sacrifice of appropriate staffing levels which leads to job dissatisfaction and the eventual turnover of nurses. A changing business model from retrospective, fee-for-service to prospective payment plans for hospitals has been

the traditional answer to this issue; the results are the need for shorter lengths of stay for patients and the need to increase patient volumes. This concept is not new for acute care hospitals, but as reimbursement continues to decrease and the numbers of uninsured continue to increase as the economy worsens, the need to accomplish these objectives becomes escalated. These escalating priorities negatively contribute to the workload of registered nurses (Needleman, et al., 2006). Cost cutting measures such as restructuring and re-engineering typically result in reductions to the workforce, leaving fewer nurses to care for more acutely ill patients within a shorter period of time.

Equally disconcerting is the issue of nursing salaries. As salaries for nurses increase, there is a desire to decrease the number of newly hired and retained registered nurses to save on expenses (Aiken, et al, 2006; Buerhaus, et al., 2009; Gordon, 2005; Needleman, et al., 2006). The nursing staff composes the largest sector of the workforce in hospitals. As the economy worsens, positions for newly hired nurses are “frozen” or the vacancy deleted from the budget. In addition, the organization’s leadership is likely to look inward to reduce the numbers of existing staff. Both of these actions have a negative impact on job satisfaction of existing nursing staff leading to turnover. Thus, the vicious cycle is perpetuated: shorter and shorter lengths of stay for sicker and sicker patients and a desire to decrease the number of registered nurses, whose workload has increased as a result of the shorter lengths of stay and increased volumes. This cycle results in job dissatisfaction, these outcomes are not unlikely consequences of this type of work environment, thereby further perpetuating the attrition cycle of nurses (Aiken, et al, 2002; Aiken, et al., 2006; Lake and Friese, 2006). Nurses who are dissatisfied in their work environment often portray

this dissatisfaction to their patients and patient's families which is reflected in poorer patient outcomes, satisfaction ratings and reputation of the institution; all of which further drive the cycle of attrition.

Public Perception of Nurses

Throughout history, negative and stereotypical portrayals of nurses as handmaidens to physicians have influenced society's perception of nurses. As noted by Janiszewski-Goodin (2003), this confusion about what exactly nurses do could stem from the fact that a nursing license is awarded to graduates of three different levels of educational preparation: a 2-year associate degree, 3-year diploma, and a 4-year baccalaureate degree. "This variety of educational pathways has led many students and school guidance counselors not to value nursing as an intellectual enterprise" (Janiszewski Goodin, p. 338). This issue is attempted to be addressed with a bill in the New Jersey and New York legislature. This bill will require all licensed registered nurses to have a Bachelor's of Science in Nursing within 10 years of licensure. The "BSN in 10" bill is also being supported by a number of other states (New Jersey State Nurses' Association, 2010).

In addition, the public perception of healthcare providers in general has changed in the last decade thereby presenting additional challenges for the bedside nurse. One of the most significant events affecting the healthcare industry and public opinion of healthcare was the release of the Institute of Medicine (IOM) report, *To Err is Human* (2000) in which it was argued that 44,000 to 98,000 patients die every year due to medical errors in healthcare institutions; error that could have been prevented by safer

processes (Institute of Medicine, 2000). The Institute of Medicine is scheduled to produce a sequel to this report in 2010. The 2010 report promises to highlight the same issues of provider errors and patient safety concerns in greater detail. This 2000 report however, created a fair amount of cynicism and distrust among patients and families about healthcare providers and the healthcare system in general. The publication, the initial media coverage of the report and subsequent expert testimony encouraged patients and families to question their healthcare providers. Questions about the care that is being rendered, what medications the patient is taking and what the medication is for, the side effects and treatments the patient is receiving are common queries of patients and their family. Nurses answering these same questions for multiple family members and taking the time to educate patients and families requires time that nurses may not have when caring for multiple patients. Nurses are often rushing and unable to provide timely response to questions. This lack of response or untimely response to patients gives the appearance of a hurried, chaotic environment due to short staffing further exacerbating the public's concern about the welfare and safety of their family members.

In addition, the report has been the impetus for a number of changes in patient care to improve patient safety and reduce the chance of error. Many of these changes create additional workloads for nursing staff, such as processes that require two nurses to check a medication or the administration of blood products. Although necessary, these safety interventions add additional expense for the hospitals (Needleman, et al., 2008). What once was a process conducted by one nurse, now requires two nurses contributing to the workload and contributing to an environment that appears hurried,

chaotic and unresponsive to patients and families, focusing on administrative duties rather than adequate patient care.

From the safety perspective, another focus of this report was adequate nurse staffing as a mechanism to reduce medical errors (Institute of Medicine, 2000). The issue of adequate numbers of nurses in an era of nursing shortages has become even more critical as consumers become acutely aware of staffing levels in hospitals. Through the media coverage of the Institute of Medicine Report, the public is also aware the potential consequences of less than adequate staffing. The incidence of medical errors in hospitals and the potential for additional errors due to inadequate staffing was strongly emphasized in the report (Aiken, et al., 2008; Aiken, et al., 2002; Armstrong & Laschinger, 2005; Auerbach, et al., 2007; Needleman, et al., 2006). As noble as it is to want to protect the patient through better safety measures, additional workloads for nurses are created through the development of processes that require two nurses versus one or additional paperwork designed to promote safety. However, inadequate numbers of registered nurses may exist in hospitals due to cost cutting measures.

From purely an expense position, it is not surprising that hospital administrators look to reduce registered nurses as one approach to cost savings. Salaries of registered nurses have risen significantly between the years of 1983 and 1992 due to the economic principle of supply and demand (Buerhaus, et al., 2009). As previously indicated, nursing staffs are typically the largest workforce category in hospitals. Unfortunately, as wages rise, the desire to decrease these expensive resources becomes greater among hospital administrators since the incoming revenue is not meeting the increased costs of operations for reasons formerly stated. To some extent,

the increase in wages has contributed to the shortage of registered nurses in hospitals (Buerhaus, 2009). As these nurse resources are decreased, workloads become heavier for those left behind and turnover and job dissatisfaction increase. Vacancies of registered nurses eventually escalate and other action which negates the cost savings effort must now be taken...this usually requires the use of temporary or agency nurses. As a result there is a greater expenditure for the administration rather than a cost-saving measure.

In many hospitals, agency nurses (contracted nurses) are utilized to combat shortages. Agency nurses are supplied through an organization whose sole business is to supply temporary registered nurse staffing to hospitals. Depending on the type of agency, temporary could mean one shift or as long as three months of staffing. Hospitals pay the agency directly for these services. For example, the Traveler's Agency offers nurses the ability to travel the United States, working in three month increments in a geographical location of their choice; an appealing concept to new nurses entering the profession. When work environments are negative, this type of work becomes very attractive to a dissatisfied nurse employed in the institution (Wong, et. al., 2006). Agency nurses are paid more money; usually have more benefits and perks than hospital employed nurses with whom they are working side by side (Gordon, 2005). As temporary nurses become more of the routine versus the exception, more hospital nurses migrate to the agency, further exacerbating the nurse retention problem and job dissatisfaction of existing nurses due to increased workload. In addition, hospitals suffer short and long term negative effects from a constantly changing novice, newly hired nursing staff (VanOyen Force, 2005). Additionally, the more agency nurses

that are used, the higher the financial burden to hospitals as well as the negative effect on the remaining hospital nurses. As hospital expenses increase due to the use of agency nurses, the more likely that administration will pursue restructuring or re-engineering initiatives to compensate for the expense of agency nurses.

Restructuring and Re-Engineering

As stated previously, specific cost cutting measures have become necessary as hospital administrators attempt to respond to these challenges. The most familiar of these in the healthcare industry are the concepts of restructuring and re-engineering. Restructuring and re-engineering involves cost cutting reforms in the form of several principles: system design using an 80/20 approach, design for safety, mass customization, continuous flow and production planning. These are approaches used in other industries successfully (Institute of Medicine, 2001). These concepts have been proven to reduce expenses, but must be understood. The 80/20 rule (Pareto Principle) refers to the theory proposed by Vilfredo Pareto and in essence translates to 20% of the processes create 80% of the problem (Reh, F.J., 2010). Design for safety involves understanding of the source of errors and process redesign to minimize errors or detect potential errors before they occur. Mass customization is creating customization through technology without increasing costs; and continuous flow and production planning refers to the continuous flow of patients through the system (Reh, 2010).

Linda Aiken (2001) provides a more comprehensive distinction between the two. "Hospital restructuring includes macro organizational changes such as mergers, closings, conversion to non-acute care and ownership changes, as well as service

delivery modifications such as vertical and horizontal integration of services and development of new product lines” (Aiken, et. al., 2001, pg. 417). Re-engineering is process redesign and may include changes in work assignments, modification in clinical staffing and skill mix, and reductions in management positions. The objectives of re-engineering are to achieve higher levels of labor productivity and efficiency thus enabling hospitals to deliver care at lower costs without adversely affecting patient satisfaction and quality of care” (Aiken, et al., 2001, pg. 417). Essentially this means that through these re-engineering and restructuring initiatives hospitals have either grown or closed, changed levels of care, changed processes in the delivery of care and/or reduced staffing without impacting quality.

However, in hospitals, re-engineering or restructuring often means the elimination of positions and creating more of a workload for the remaining nursing staff and thus more job dissatisfaction. For example, re-engineering processes typically involve the decentralization of support services such as patient transport, physical therapy or respiratory therapy to name a few. While doing so, management positions may be eliminated, with registered nurses assume the responsibility of supervising these personnel thereby adding to their workload (Aiken, et al., 2001). Another example may include the elimination of multiple middle management positions which expanded the control and accountability for remaining nurse managers (Way, Gregory, Davis, Bake, LeFort, Barrett, Parfrey, 2007; Hofmeyer & Marck, 2008). The expanded area of control impedes the ability of the manager to respond to his or her staff and employees lose faith in their leadership. “When employees perceive that employers’ actions violate the implied obligations made to them upon hiring, they become distrustful and feel a

sense of injustice” (Way, et al., 2007, pg. 236). The inability of management to respond to their staff result in job dissatisfaction in the organization and eventually turnover (Way, et al., 2007). Christine Way and colleagues (2007) postulate that the more positive the perception of organizational culture, the greater trust and greater increase in satisfaction result in greater commitment and intent to stay (Way, et al., 2007).

Restructuring and re-engineering have done little to enhance the work environment or increase profits for hospitals. Whereas the staffing has been restructured or re-engineered (decreased), the work processes have not adjusted similarly. The result is the expectation to do more with less. In this environment, this translates into greater responsibility place upon registered nurses with less support and resources being given, thereby leading to job dissatisfaction and attrition (Buerhaus, et al., 2009; Gordon, 2005).

On the contrary, the most prominent result that has occurred from these efforts of restructuring and re-engineering is that both patients and healthcare professionals are now vulnerable in the healthcare environment (Hofmeyer & Marck, 2008). Hofmeyer and Marck (2008) argue that these persistent pressures to meet competing demands in a complex environment have resulted in clinical nursing being termed a high-risk profession. Providers encounter consistent pressures in their work environment to meet a myriad of competing demands and initiatives within a complex moral terrain of difficult, strained relationships and tumultuous healthcare systems (Hofmeyer & Marck, 2008).

Buerhaus and colleagues (2009) contend that a more efficient way to provide basic nursing care services may be by using other healthcare providers such as unlicensed assistive personnel. The jobs of nursing assistants and other support staff

should be oriented more toward preventing adverse outcomes and improving patient safety. Taking full advantage of available technology and nonprofessional nursing personnel will enable increasingly scarce registered nurses to better prepare for and deal with the challenges of maintaining high quality while dealing with nursing shortages (Buerhaus, et al., 2009). Unlicensed assistive personnel (UAP), although they are helpful in assisting nurses to provide care, they do not have the level of education of registered nurses and need constant supervision when providing care. The care they provide is limited to feeding patients, ambulating patients, bathing patients and changing beds. Registered nurses must still conduct assessments, administer treatments and medications, educate patients and families, and perform all of the documentation requirements in the medical record (NJ State Department of Health, 2009). While there is certainly a place in the healthcare setting for UAP, they cannot replace the registered nurses.

The Issue of Autonomy

Autonomy in practice is another internal factor influencing retention of nurses. The lack of autonomy (independence or freedom) in nursing practice also contributes to a dissatisfied nursing staff and consequently turnover among nurses. Studies have shown that increased decision making and a participatory management style such as in designated Magnet hospitals, increases nurse satisfaction and retention (Keys, 2009; Lake & Friese, 2006; Seago, 2006; VanOyen Force, 2005). Lake and Friese conducted secondary analyses of nurse surveys from adult acute care hospitals in Pennsylvania and a sample (16) of the original Magnet hospitals designated in 1985-

1986. Researchers conclude that autonomy is a cornerstone of excellent work environments (Kramer & Schmalenberg, 2008; Spence Laschinger & Finegan, 2005).

Kramer and colleagues (2008) conducted a mixed methods study using interviews, participant observations and the Conditions of Work Effectiveness Questionnaire II (CWEQII) empowerment tool to identify structures and attributes of structures that facilitate control over nursing practice. Close to 3,000 nurses from 76 Magnet hospitals completed a survey that measures control over nursing practice. The concept of autonomy and control over practice is frequently cited as a necessity to the Magnet environment. The five components identified which contribute to control over practice were: participation in decision making, access to power, recognition, accomplishments and evidence-based practice initiatives (Armstrong & Kascgubgerm 2005; Kramer, M., Schmalenberg, C., Magurie, P., Brewer, B., Burke, R., Chmielewski, L., Cox, K., Kishner, J., Krugman, M., Meeds-Sjostrom, D., Waldo, M., 2008).

In hospital environments, the concept of autonomy is somewhat nebulous as from a clinical perspective, there is very little a nurse can do without an order by a physician. Control over practice is somewhat of an oxymoron as the practice of nursing is so intensely regulated. For example, medications that are routinely bought over the counter such as aspirin or antacids cannot be administered to a patient without a physician's order. However, there are other components of the work environment that nurses can exert control over such as scheduling and evidence-based clinical nursing protocols through a self-governance model.

Nurses have a diverse definition of autonomy which makes this issue particularly difficult to address. Kramer and Schmalenberg (2008) compiled data from 6 research

studies conducted between 2001-2007 which encompassed hospitals throughout the United States and included 20,000 nurses. The research projects were based on the essentials of magnetism, or features identifying a positive work environment (Lake & Friese, 2006). These researchers came up with this definition of autonomy: "Autonomy is the freedom to act on what you know is in the best interests of the patient ...to make independent clinical decisions in the nursing sphere of practice and interdependent decision in those spheres where nursing overlaps with other disciplines....it often exceeds standard practice, is facilitated through evidence based practice, includes being held accountable in a constructive, positive manner, and nurse manager support. Autonomous practice includes both types of decisions, independent and interdependent" (Kramer & Schmalenberg, 2008, pg. 60-61). In their research, they found that nurses in Magnet designated hospitals consistently scored higher on the Autonomy Scale than did nurses in non-Magnet designated hospitals. Autonomy in practice is perceived by nurses to be the cornerstone of profession (Kramer & Schmalenberg, 2008).

As noted, the Nursing Work Index (NWI) was initially developed by nursing researchers Marlene Kramer and Laurin Hafner in 1989 and was based on the original research pertaining to the Magnet hospitals. This research was sponsored by the American Academy of Nursing and conducted by researchers McClure, Poulin, Sovie & Wandelt (Aiken & Patrician, 2000). In this original study, researchers found that not only did these hospitals have low turnover rates, but adequate staffing levels, flexible scheduling, strong, supportive and highly visible leadership, recognition for excellence in practice, participative management practices, open communication, good relationship

with physicians, salaried rather than hourly compensation for nurse, professional development and career advancement opportunities (Sovie, 1984).

Jean Ann Seago (2006) questions whether autonomy is a realistic goal for the practice of nursing in hospital settings and applies the theory of oppressed group behavior to the nursing profession as has been applied to other female dominated professions. She posits that the structure in which nursing is practice makes the issue of autonomy very complicated and can only be corrected by powerful hospital people and members of society acknowledging the reality of the undervalued status of women and women's work. Nursing profession remains a female dominated profession with approximately 94% of practicing nurses being female. It is noted however, that more men are becoming interested in nursing as the economy worsens (Buerhaus, 2009). Men entering the nursing workforce may lend more stability to the workforce as typically child care issues are the responsibility of women and contribute to turnover.

Autonomous practice also includes making decisions about the work environment, such as scheduling, staffing or other unit/department specific practice issues (Spence Laschinger & Finegan, 2005). Autonomy, employee engagement and employee empowerment are some of the descriptors used to describe environments that promote high job satisfaction and high retention rates (Kramer & Schmalenberg, 2008; Spence, Laschinger & Finegan; Seago, 2006; VanOyen Force, 2006). These are the primary researchers in the literature pertaining to the issue of nursing autonomy related to job satisfaction. Authors note that autonomy in nursing practice is one of the key issues related to retention of professional nurses (Auerbach, et al., 2007; Jasper, 2005; Kramer & Schmalenberg, 2008; Needleman, et al., 2006; Piper, 2006; Spence

Laschinger, 2005). The concept of autonomy is also one of the focal points of the Magnet award (Armstrong & Laschinger, 2006; Keys, 2009; Upenieks & Sitterding, 2008).

Nurses work very closely with physicians in healthcare settings. Nurses depend on physicians to establish the plan of care for the patient and manage the patient care through giving orders. In positive nursing work environments, physicians and nurses partner to care for patients and develop a climate of mutual respect. Although physicians primarily drive the care of their patients through writing orders, nurses expect to have input into care of their patients and expect to engage in collaborative working relationships with physicians.

Nurse Physician Working Relationships

As noted, the concept of autonomous practice in nursing is somewhat of an oxymoron considering that nursing is such an intensely regulated profession and the nurses' dependence upon the physicians (or other authorized licensed providers) for orders to administer care, medication, treatments, and to engage in other activities such as ambulating patients. Given this dependence, good working relationships between physicians and nurses are paramount to enabling nurses to give appropriate care and facilitate communication about their patient needs (Gordon, 2005; Institute of Medicine, 2000; Piper, 2006; Rosenstein & O'Daniel, 2008). Where good nurse-physician relationships exist, nurses are more satisfied in their work environment. A more satisfied and content workforce leads to lower turnover.

Working relationships between registered nurses are cited as one of the key factors in job satisfaction and retention of nurses in hospitals (Anthony, Standing, Glick, Duffy, Paschall, Sauer, Sweeney, Modic, Dumps, 2005; Friese, Lake, Aiken, Silber, Sochalski, 2008; Gordon, 2005; Jasper, 2008; Lake, et al., 2006; Levtak, et al., 2008; Rosenstein & O'Daniel, 2008). Work relationships are affected by disruptive behavior in the work environment. Disruptive behavior is defined as "...angry outbursts, rudeness or verbal attacks, physical threats, intimidation, noncompliance with existing policies, sexual harassment, idiosyncratic, inconsistent or passive aggressive orders, derogatory comments about the organization or disruption of smooth function of the healthcare team" (Velton, 2007, p. 547). For example, a longitudinal study of 4,530 healthcare providers in 100 hospitals across the country was conducted by Rosenstein and O'Daniel (2008) over a six-year timeframe. A convenience sample survey was conducted in the Veteran's Hospital Administration West Coast. This survey began in 2001 in 84 hospitals or medical groups ranging from large academic teaching centers to smaller, rural community hospitals. A survey instrument consisting of 24 items was developed for this study. The instrument allowed for three types of responses: yes or no; Likert – type on a scale of 1 to 10 and some open ended questions. Reasons for disruptive behaviors were identified such as nurses questioning or clarifying physician orders or when physicians perceived care was delayed. Also identified in the study was the reluctance to report disruptive behavior (Rosenstein & O'Daniel, 2008). This survey was designed by the primary investigator with the assistance of other Veterans' Hospital administrative staff and outside consultants (Rosenstein, 2002). However, there is little discussion on reliability and validity of the tool.

Rosenstein and O'Daniel (2008) found that 74% of the respondents reported that they witnessed disruptive behavior as described in the definition above. Fifty-six percent of physicians reported witnessing disruptive behavior in other physicians and 70% witnessed disruptive behavior among nurses; that is nurse to nurse (Rosenstein & O'Daniel, 2008). Disruptive behavior among healthcare providers not only affects the retention and morale of nursing staff but is also a precursor to errors as communication is affected (Aiken, et al., 2006; Gordon, 2005; Lake & Friese, 2006; Rosenstein, 2008; Velton, 2007). Communication is one of the pivotal components to quality of patient care and error prevention (Institute of Medicine, 2000; Rosenstein & O'Daniel, 2008). Such disruptive behavior has been tolerated by the older nurses (Veteran generation) of the nursing profession whose values include a respect for authority (Zempke, Raines, Filipczak, 2000). This type of behavior is not tolerated by the younger nursing staffs and the occurrence of disruptive behavior by physicians leads to job dissatisfaction and turnover.

There were two limitations to the study by Rosenstein and O'Daniel. The first was the sampling procedure which was nonrandom and was a sample of convenience which has the potential to introduce respondent bias. The second is that the instrument was only tested for face validity; content validity and reliability of the instrument were not tested (Rosenstein & O'Daniel, 2008). Nonetheless, the results point to the overarching theme that physician nurses working relationships have a critical impact on job satisfaction among nurses and turnover.

Compounding the issue of disruptive behavior is the perception among staff nurses that either physician leadership or administrators do not take appropriate action

against the offenders when these behaviors arise (Rosenstein & O'Daniel, 2008; Velton, 2007). This concern brings into focus the role of management in nurse job satisfaction and retention.

The Role of First-Line Management and Hospital Leadership

Another internal factor leading to job satisfaction of nurses are the management styles of the hospital and first line management staff. It is argued that one of the primary responsibilities that characterize nurse managers' work is retention of nursing staff through creating positive work environments (Anthony, et al., 2005). First-line managers provide the connection between the executive staff and the bedside nurses (Anthony, et al., 2005).

A qualitative study of 35 nurse managers was done in an attempt to determine what characteristics of nurse managers were most effective in retaining registered nurses. The study was based on categories of structure, process and outcomes developed by Avedis Donabedian, MD. He suggested that these 3 measures can be separated to effectively evaluate quality of care (Seidman, Steinwachs, Ruben, 2003). This conceptual framework was originally developed to examine the components that influence medical care. Structure as defined by Dr. Donabedian is the infrastructure or underlying systems, that is the correct people are in place and the correct systems are aligned in the correct way to support quality of care (Seidman, et al., 2003). From the nursing perspective, in this study structure is the environment in which nursing care is rendered and the environment in which the nurse manger supports the group practice of nursing (Anthony, et al., 2005). Process affects practice in both a direct and indirect

manner, and it is defined as the seamless provision of care work operation and organization and lastly: work flow (Anthony, et al., 2005). Outcome was defined as the change in the function of a unit as a result of the prior structure and process (Anthony, et al., 2005). Outcome measures address the end result of the care rendered (Seidman, et al., 2003).

Four focus groups were conducted with purposely chosen first line managers totaling 32. Audiotapes of the focus groups were transcribed, read repeatedly and content analysis was used to identify categories. Data were managed by a computerized program called Nudist QRS5. The information from this study validated that the role of first-line managers is complex with many competing priorities, however, their closeness to the staff places them in the best position to affect change and create positive work environments for staff (Seidman, et al., 2003).

In this study, the key roles of nursing managers were determined to include four categories which are the technical role, the professional role, administrative responsibilities and fiscal responsibilities (Anthony, et al., 2005). Technical role involves providing tools and resources for staff to accomplish patient care. Professional role includes providing the appropriate staffing, role-modeling behaviors, acting as a resource person to name a few. Administrative responsibilities captured roles such as managing human resources, marketing the hospital, and acting as a mediator between the staff and administration. The final category, fiscal includes budgeting, balancing cost and quality and payroll responsibilities (Anthony, et al., 2005).

The limitations to this study are obvious. The nurse managers who volunteered for the study may not be representative of the larger populations; the results cannot be

generalized. Secondly, all nurse managers lived and worked in the same metropolitan area even though the size of the hospitals differed (Anthony, et al., 2005). Lastly, the researchers cite Bruce L. Berg's philosophy in his publication: *Research Methods for the Social Sciences*, in which he notes: "...the value of focus groups is in the interchange of ideas and comes at the expense of the depth that is more often gathered from individual interviews" (Anthony, et al., 2005, pg. 154).

Derived from the research pertaining to management styles, emerges the concept of building social capital. Hofmeyer and Marck (2008) include many of these roles and responsibilities in their approach to building social capital in healthcare. The researchers define social capital as "trust, mutual understanding, and shared values and behaviors that bind the members of human network and communities to make cooperation action possible" (Hofmeyer & Marck, 2008, p. 146). The authors recommend that leaders assess and strengthen five dimensions of the social capital with organization to improve retention and thus provide safer healthcare environments. These five dimensions are: 1) social cohesion and inclusion, 2) groups and networks, 3) collective action and cooperation, 4) information and communication, and 5) trust and solidarity (Hofmeyer & Marck, 2008). Social cohesion refers to the tenacity of social bonds and their potential to include or perhaps exclude nurses at the unit level, as part of a team and across the organization. Groups and networks are the factors that enable nurses to access resources and collaborate to achieve shared goals in practice environments. Collective action and cooperation are related to trust and solidarity, but also define how groups work together in projects or respond to crisis situations. Information and communication provides increasing access to resources to enable

individuals to do their jobs. Lastly, trust and solidarity are the extent to which nurses can rely on their colleagues and strangers to assist them or at least do no harm to them (Hofmeyer & Marck, 2008). Work environments that have the components of social capital lead to retention of staff. It is up to the front-line management to promote such components. Collaborative work relationships are important to nurses to provide quality of care. Nurse Managers must develop the skills necessary to create such a work environment to improve job satisfaction.

The role of management in an organization has a critical impact on retention of staff. Included in the professional domain of the manager's responsibilities is the provision of adequate and appropriate staffing (Anthony, et al., 2005). In exercising this role, the nurse manager and hospital administrators must be conscious of the issues surrounding work-life balance and the fact that the profession remains a female dominated profession (Buerhaus, et al., 2009; Gordon, 2005; Seago, 2006). Women often have child care concerns or other family concerns which limits their abilities to work specific shifts, work overtime or spontaneously respond to a request to work when colleagues call in sick or agency nurses fail to appear to their shifts. Work-life balance and respect for individual's time off and family responsibilities is critical to job satisfaction of nursing staff.

Staffing

Staffing in hospitals has been a controversial issue for some time among registered nurses, and has been the predominant subject of union contracts along with nursing salaries (Buerhaus, 2009; Needleman, et al., 2006). Add to this staffing issue

the current economic climate in the United States, coupled with a dwindling supply of registered nurses and this issue is compounded exponentially. Decreases in patient length of stay due to managed care have increased the acuity of the patient as well as the nursing workload further exacerbating an existing problem (Aiken, et al., 2002; Aiken, et al., 2006; Gordon, 2005; Needleman, et al., 2008). Inadequate staffing will eventually lead to job dissatisfaction and increased turnover and poor retention of registered nurses.

The number of patients to each nurse (nurse to patient ratio) serves as a descriptor of staffing in hospitals. Consequences of less than adequate staffing result in lower nurse to patient ratios; that is, the number of patients assigned to each nurse is increased. Low nurse to patient ratios (more patients to one nurse) create unrealistic workloads for staff and have been found to impact patient mortality as well as other patient outcomes, nurse burnout and job dissatisfaction as a whole (Aiken, et al., 2002; Aiken, et al., 2008; Buerhaus, et al., 2009; Needleman, et al., 2006; Toruangeau, Doran, McGillis-Hall, O'Brien Pallas, Pringle, Tu, Cranley, 2008). There are two critical studies in the literature supporting this issue.

The first is a landmark study of nurse staffing by Linda Aiken and colleagues (2002) analyzed patient hospital discharge data in 168 hospitals in Pennsylvania and 10,184 nurses working in these hospitals. There were three linked and overlapping sources used for this multisite, cross sectional study: surveys of nurse, patient discharge data and secondary data on hospital characteristics. Out of the 210 general hospitals of Pennsylvania, 168 participated in the study and provided data pertaining to hospital surgical discharges. The American Hospital Association (AHA) Annual Survey

and the 1999 Pennsylvania Department of Health Survey provided the information regarding hospital characteristics. Three hospital characteristics were used as control variables: teaching, size, technology and status. These hospitals were grouped into three categories: small meaning less than 100 beds, medium (101-250 beds) and large which was greater than 250 beds (Aiken, et al., 2008).

A nurse staffing measure was calculated as the mean patient load across all staff nurses who reported having responsibility for at least 1 but fewer than 20 patients on the last shift they worked. Surveys were mailed to a 50% random sample of licensed nurses in the state of Pennsylvania. The response rate was 52% for a total of 10,184 nurses. Two nurse job outcomes in relation to staffing were examined: job satisfaction (rated on a 4-point scale from very dissatisfied to very satisfied) and burnout measured with the Emotional Exhaustion scale of the Maslach Burnout Inventory which is noted to be a standardized tool (Aiken, et al., 2008).

Patient discharge data were obtained from the Pennsylvania Health Care Cost Containment Council. Patients who died within 30 days of admission to the hospital included 232,342 patients between the ages of 20 and 85 years who had general surgical, orthopedic or vascular procedures. Surgical procedures were selected due to the existence of well validated risk adjustment models. In addition to 30-day mortality, "failure to rescue deaths" were also examined. Failure to rescue refers to deaths within 30 days of admission due to complications. Complications of patients were identified by scanning discharge abstracts for *International Classification of Diseases, Ninth Revision, Clinical Modification* (ICD-9-CM) codes (Aiken, et al., 2008).

Of the surgical patients studied, there was found to be a clear effect of nurse staffing on morality following complications and mortality in general. High emotional exhaustion and greater job dissatisfaction were found to be strongly associated with nurse to patient ratios. In addition, there was a strong association between nurse staffing and patient mortality as well as mortality following complications also known as "failure to rescue" (Aiken, et al., 2002; Aiken, et al., 2008; Alvarez & Fitzpatrick, 2007; Buerhaus, et al., 2009; Needleman, et al., 2006). Patient mortality increased by 7% for every additional patient in the average nurses' workload. This translates to a nurses' assignment increasing from 4 to 6 patients or 4 to 8 patients per nurse would increase patient mortality by 14% and 32% respectively (Aiken, et al., 2008; Buerhaus, et al., 2009). As also noted by Alvarez and Fitzpatrick (2007) in their research on nurse dissatisfaction and patient falls, poor patient outcomes result in longer lengths of stay, increased utilization of resources for patients and increase the cost of treatment. In general, increased nurse staffing improves patient outcomes (Aiken, et al., 2002; Aiken, et al., 2008; Buerhaus, et al., 2009; Gordon, 2005; Lake & Friese, 2006; Needleman, et al., 2006).

The second of these studies was conducted by Jack Needleman and colleagues (2006). The purpose of this study was to make a social case to policy makers and hospital administrative staffs to invest in nurse staffing. Data was analyzed from 799 nonfederal acute general hospitals in 11 states. Information was obtained from the state's data on hospital location, teaching status and size as well as the American Hospital Association Surveys and the Medicare cost reports. Using regression analyses, these researchers constructed national estimates of the cost increasing nurse staffing

and the association between decreased length of stay, adverse outcomes and deaths. In specific inadequate nurse staffing was associated with longer patient lengths of stay, increased urinary tract infections, episodes of upper gastrointestinal bleeding and failure to rescue, thus supporting the findings of the previous noted study on nurse staffing. Failure to rescue in this case was defined as the death of a patient due to one of 5 life threatening complications: pneumonia, shock or cardiac arrest, sepsis, gastrointestinal bleeding or deep vein thrombosis (Needleman, et al., 2006). Results were projected from the sample (799 hospitals) to all nonfederal U.S. acute care hospitals and updated the estimates of needed staffing, avoided adverse outcomes and hospital days and costs to reflect hospital costs, admissions, and lengths of stay in 2002. Three options were used to increase staffing in the data analysis: raise proportion of registered nurses to the 75th percentile; raise number of licensed practical nurses (LPNs) to the 75th percentile; or raise both the proportion of registered nurses and licensed practical nurses to the 75th percentile. In all three options, a business case was successfully made to increase nurse staffing. The limitation of this study is that these are only estimates of the expenses and cost savings associated with increasing staffing (Needleman, et al., 2006).

Both of these studies support the argument for better nurse staffing to reduce length of stay, prevent adverse patient outcomes and reduce patient mortality. Adequate nurse staffing also enhances retention of nursing staff because nurse feel they can provide appropriate, safe care to their patients. Adequate staffing is an important issue to nurses. So much so that some of the state nurses' associations are taking action to assure that appropriate staffing is always available. For example, the

California Nurses' Association successfully lobbied for legislation that addresses mandatory staffing ratios in 2002 (Gordon, 2005). Since this legislation was passed, there has been a push by nursing unions in other states to pass the same legislation. However, Peter Buerhaus, PhD (2009) argues that mandatory nurse to patient ratios should be avoided. He reports that these mandates increase inefficiency, labor costs and do nothing to address the underlying problems that create the shortage (Buerhaus, et al., 2009).

In New Jersey, although mandatory staffing ratios are not in place, there is a daily reporting of staffing to the State Department of Health that is required under hospital licensure (New Jersey Department of Health and Human Services, 2008). This information is available to the public on the internet. In the healthcare industry, this is thought to be the precursor to mandatory staffing ratios among nursing leaders.

The need for additional nurses in hospitals to meet patient demand has led to nurses working longer shifts and additional shifts as the expense of overtime. The repeated use of overtime carries a potential threat to patient safety and a financial impact to hospitals as well. The Institute of Medicine (2000) discussed lengthy shifts and the increased potential for medical errors due to staff exhaustion. The IOM reported that 27% of hospital nurses worked over 13 consecutive hours on one or more occasions during the week (Institute of Medicine, 2000). Organized nurses have been successful in lobbying for legislation banning mandatory overtime in Oregon, Washington, New Jersey, Maryland, Minnesota and Maine (Gordon, 2005). The potential harm to patients and the impact on families of nurses forced to work overtime make mandatory overtime one of the least desirable approaches to filling staffing

deficits. Rotating shifts is a related issue which makes the hospital nursing a less than desirable job (Gordon, 2005). Hospitals usually require nurses to rotate shifts meaning that they are expected to work days, evenings or night shifts; sometimes all three in the same week. The rotation of shifts creates difficulties with child care and interferes with other commitments. Rotation of shifts also causes exhaustion as sleep patterns consistently change (Anthony, et al., 2005). Nurse schedules should be predictable and they should not be expected to give up their time off to meet the needs of staffing for the hospital (Gordon, 2005). By using these two methods to address nursing shortages, job satisfaction can be improved. In contrast, the opposite effect results that increase in nurse dissatisfaction, and ultimately attrition will likely result.

Burnout

The most widely accepted definition of burnout in the nursing literature is that of Christina Maslach, PhD who defines this as "...emotional exhaustion, depersonalization, a sense of reduced personal accomplishment" that renders a person no longer able to give of themselves. "It is a response to the chronic emotional strain of dealing extensively with other human beings, particularly when they are troubled and having problems" (Maslach, 1982, p.3). In Linda Aiken's study, 40% of nurses had hospital burnout levels that exceeded the normal limits in healthcare workers (Aiken, et al., 2002; Aiken, et al., 2008). Burnout leads to job dissatisfaction and turnover and subsequently nursing shortages in organizations.

The factors described: aging of the workforce, lack of nursing educators, managed care, restructuring and re-engineering, the public perception of healthcare

providers, autonomy, adequate staffing, the role of the nurse manager, nurse-physician working relationships, and burnout have all converged and interact to contribute the lack of retention of nursing personnel in hospital work environments. Coupled with an increasing demand for nurses, this presents great challenges to hospital administrators and is of great concern to agencies such as the Institute of Medicine, State Departments of Health and the Joint Commission of Accreditation of Hospitals to name a few.

These factors: an aging workforce, fewer nursing programs and shortages of nursing educators are the external components of the nursing shortage. Specific to the organization are the issues of the organization's leadership response to the changing healthcare environment, restructuring and re-engineering, salary structure, nurse autonomy, nurse/physician working relationships, the organization's management staff and scheduling are the internal factors affecting the nurses work environment. Nurse autonomy and nurse physician working relationships are among the most critical to job satisfaction of nurses. Difficulties with these internal issues lead to nurse burnout resulting in dissatisfaction with their jobs.

Consequences of a Nursing Shortage

One of the most significant research studies linking quality patient care and patient outcomes to staffing and subsequently job dissatisfaction and burnout has been done by Aiken, Clarke, Sloane, Sochalski, and Silber, in 2002. This work is referred to by several authors as one of the most crucial of studies in healthcare identifying the connection between staffing, burnout, job dissatisfaction and intent of nurses to leave

their positions and remains the largest study of this nature to be done (Aiken, et al., 2008; Auerbach, et al., 2007; Buerhaus, 2009; Gordon, 2005; Lake & Friese, 2006; Needleman, et al., 2006). An additional research study done by Needleman and colleagues (2006) support the original study and makes a business case by estimating costs of increasing staffing and cost savings through avoiding adverse patient outcomes (Needleman, et al., 2006).

Tourangeau and colleagues (2006) take the concepts of appropriate nurse staffing and patient outcomes a step further. In a study conducted among Ontario hospitals, using data from Ontario Canada Discharge Abstract Database from 2002-2003 and Ontario's Nurse Survey data from 2003, it was found that lower 30-day mortality rates were associated with hospitals that had not only a higher percentage of registered nurses, but a higher percentage of *baccalaureate* prepared nurses versus associate degree or diploma prepared nurses (Tourangeau, et al., 2006). Linda Aiken and colleagues (2003) originally presented this concept in research involving 168 adult general Pennsylvania hospitals. The results indicated that a 10% increase in the proportion of nurses holding a bachelor's degree was associated with a 5% reduction in mortality of patients within 30 days of admission (Aiken, Clarke, Cheung, Sloane, Silber, 2003). This finding poses an interesting dilemma because typically baccalaureate prepared nurses are paid higher salaries (Tourangeau, et al., 2006). In consideration of the cost cutting efforts this is a lofty expectation for hospital administrators. Should the connection between patient safety and baccalaureate prepared nurses be further empirically examined and proven, this may pose additional competing financial objectives to hospitals. However, in consideration of the Institute of Medicine Report

(2000) and the quest for quality and patient safety, hospitals may have no choice but to increase their percentage of baccalaureate nurses and incur additional expense.

In the short run but most certainly more profound over a period of time, increasing job satisfaction will save the hospital money. There is a fiscal incentive for retaining nurses because turnover of nurses is very expensive (Buerhaus, et al., 2009; Lake & Friese, 2005; Gordon, 2005). The national average for the cost of replacing a general medical surgical nurse is \$46,832 and \$92,442 for a specialty nurse (Gordon, 2005). To put this into perspective, if a hospital loses 75 medical surgical nurses and 25 specialty nurses, based on the national average the total expense to the hospital is \$5,823,450. Hospitals must advertise, interview and educate new staff nurses. This does not account for issues such as terminal payouts, cost of lost productivity. There may also be the expense to hire temporary nurses to fill the vacancies while the recruitment phase is in progress (Gordon, 2005).

Staff vacancies left unfilled for any period of time create additional vacancies because nurses who remain have increased workloads and stress which creates job dissatisfaction. The literature reports that job dissatisfaction and inadequate staffing lead to increased potential for error (Aiken, et al., 2002; Aiken, et al., 2008; Institute of Medicine, 2000; Lake & Freise, 2006; Needleman, et al., 2006). Inevitably, the longer this cycle persists, the more turnover the hospital will experience. Thus a downward spiral occurs further impacting the work environment.

Many hospitals have, and continue to take action to improve retention of nursing staff. Achievement of a Magnet designation is one approach through creating a positive work environment. Positive work environments for nurses have characteristics of

adequate staffing, adequate resources, collaborative nurse-physician working relationships, autonomous practice, competent leadership and flexible scheduling (American Nurses Credentialing Center, 2005, Aiken, et al., 2002; Aiken, et al., 2006; Hofmeyer & Marck, 2008; Needleman, et al., 2006). However, another complicating factor in workplace is the work values and beliefs of the generations currently in the workplace.

The Magnet Designation

In the literature, the designation of a hospital as a Magnet organization reflects a positive work environment by definition (Aiken, et al., Gordon, 2005; Lake & Friese, 2006; Needleman, et al., 2006; Tinkerhoff, et. al, 2010; Upeniek, 2002; VanOyen Force, 2006). Nursing researchers report that nurses feel a greater sense of autonomy in their practice in Magnet hospitals (VanOyen Force, 2006) leading to job satisfaction and lower turnover. The Magnet designation was originally given to 41 hospitals throughout the country in 1983 based on qualitative research done by McClure, Poulin, Sovie, and Wandelt (1985). In the midst of a large nursing shortage, these hospitals had very low turnover and vacancy rates for nurses, whereas other competitive hospitals were experiencing 100,000 nursing vacancies collectively (McClure, et al., 1985). The procedure included identifying a national sample of "magnetic" hospitals, that is, hospitals that achieved success in retention of nursing staff and had very low turnover rates comparatively. Fellows of the American Academy of Nursing from eight designated regions in the country were asked to nominate six to ten hospitals within their region as potential Magnet hospitals. Hospitals nominated had to demonstrate

success in recruiting and retaining nurses; a total 165 hospitals were originally nominated (McClure, et al., 1985).

Once nominated, the next step involved interviews with the directors of nursing and staff of the hospital. Nine questions were posed to each of the groups. In addition, directors of nursing and staff were asked what practices, policies or procedures were effective in enhancing the profession of nursing and increase the job satisfaction of nurses (McClure, et al., 1985). Based on analysis of the data from these 165 hospitals, 41 emerged as a true magnet for nurses. The low vacancy rates of these 41 hospitals served to confirm the positive work environments in these organizations (Lake & Friese, 2006).

The American Nurses Credentialing Center (ANCC) began a formal process to award a hospital this designation in 1994. If hospitals were able to meet specific standards (Appendix A) the organization would be given a four-year designation as a Magnet hospital (Lake & Friese, 2006). In 2009, the American Nurses Credentialing Center published a revision to the standards, collapsing the 14 Forces of Magnetism into 5 Forces of Magnetism (Appendix A). As of 2014, there are 401 Magnet organizations designated across the country, with New Jersey having 24 designated hospitals (American Nurses Credentialing Center, 2014). This represents about 9% of hospitals across the country.

The process to achieve the Magnet award first requires a lengthy application describing how the organization complies with the Magnet Standards as indicated in Appendix A. This application is then reviewed by the Magnet Commission who then determines whether the organization will receive a site visit. Once the determination is

made for a site visit, a number of surveyors (depending on the size of the organization) are dispatched to the organization to validate and amplify what is written in the application (American Nurses Credentialing Center, 2010). The surveyors spend a great deal of time with the nursing staff and specifically request that management is not present during these discussions with staff. The process to achieve Magnet designation is rigorous, requiring extensive preparation. It is equally challenging to maintain the Magnet status.

Once Magnet designated, the organization is required to participate in the data collection for the National Database of Nursing Sensitive Indicators (NDNQI) which includes a yearly survey of nurses to assess their level of job satisfaction. This process is not without significant expense to the organization as there are multiple fees associated with the process (American Nurses Credentialing Center, 2005; American Nurses Credentialing Center, 2010; Gordon, 2005; Lake & Friese, 2006).

Although the Magnet designation has become synonymous with positive work environments, low vacancy rates and low turnover rates, some questions have been raised as the growth of Magnet hospitals has progressed. First, since the process of the award mirrors a Joint Commission on Accreditation of Hospitals (JCAH) survey, there is a question about why the ANCC would want to emulate the conflicts and troubled history of this process. The Joint Commission is an organization designated by the Center for Medicare and Medicaid Services to survey healthcare organizations for compliance with standards. The accreditation by the Joint Commission is tied to hospital reimbursement by Medicare and Medicaid. Institutions that lose their Joint Commission accreditation often lose their funding from Medicare and Medicaid which

causes substantial financial hardship and reduction in services. Losing accreditation would have devastating effects not only on the hospital finances but reputation of the hospital as well.

This Joint Commission survey completion is extremely intense for the organization and very stressful due to the stakes involved if accreditation is not attained or renewed. Therefore, mirroring a process which could leave the institution vulnerable during subsequent JCAH accreditation review is one of the concerns raised about the current Magnet designation process (Gordon, 2005).

Second, it is argued that if this Magnet designation truly has the effect of improving the quality of patient care for patients through retaining professional nursing staff and preventing nursing shortages, the accreditation process for the Magnet award should be mandatory instead of voluntary. Last, there is a question on whether or not Magnet organizations are able to sustain this positive work environment in this economic climate (Gordon, 2005). The concern is that the award process is costly as is maintaining the award through the four-year designation. There are administrative fees, personnel required to provide and support resources to nurses such as educators, expenses related to ongoing education and infrastructure personnel to alleviate nurses from non-nursing work such as patient transportation or the passing meal trays (Gordon, 2005). These are justified questions particularly as it relates to the quality of patient care. The literature reports better staffing in Magnet designated hospitals (Aiken, et al., 2002; Lake & Friese, 2006). This may present an ethical dilemma in the future of healthcare delivery as quality of patient care seems to be dependent upon adequate numbers of qualified nursing staff (Aiken, et al., 2008; Aiken, et al., 2002;

Armstrong & Laschinger, 2006). Should achievement and maintenance of the Magnet designation become a financial tradeoff for more qualified nurses to provide direct care, this could be problematic from several standpoints. Therefore, it is critical that administrators from non-nursing areas place equal value on the achievement and maintenance of this designation and support allocating of financial resources to do so.

Irrespective of the answers to these questions, according to the earlier literature, there appears to be significant differences in the work environment in hospitals designated as Magnet (Aiken, et al., 2008; Aiken, et al., 2002; Lake & Friese, 2006; Ulrich, Buerhaus, Donelan, Norman, Dittus, 2007). These hospitals have better staffing, more staff development programs, more resources for nurses, flexible scheduling, autonomy and self- governance structures and professional practice environments. In essence, the best example of care environments that support professional nursing practice are Magnet hospitals and research on Magnet hospitals repeatedly demonstrates links between better nursing practice environments and superior nurse and patient outcomes (Aiken, et al., 2008; Aiken, et al., 2002; Lake & Friese, 2006). The lack of adequate numbers of registered nurses can have serious consequences on the financial stability of the organization, nursing morale, patient safety and quality of healthcare in hospitals.

A recent study reports that working in a Magnet designated facility does not necessarily mean that nurses perceive better working conditions, although working conditions have been found to be major considerations in nurse retention (Trinkoff, et al, 2010). These researchers did a secondary data analysis of the Nurses Worklife and Health Study (2004) using responses from 837 nurses working in 171 hospitals: 14

Magnet and 157 non-Magnet hospitals. The original study selected 5,000 licensed RN participants from Illinois and North Carolina. Of the invited participants, 2,156 nurses responded (82.4%). The sample was further restricted to nurses working in acute care environments, resulting in 837 nurses in 171 acute care hospitals (Tinkerhoff, et al, 2010).

The study variables included work schedules (for the prior six months). Work schedules included the frequency of overtime and having less than 10 hours off between shifts. Mandatory overtime and required on-call shifts were also included (Tinkerhoff, et al, 2010).

Job demands were measured by the Job Content Questionnaire which has been shown to accurately measure the psychosocial work environment of the organization based on the individual nurse responses. These psychosocial work demands included working very hard or very fast, excessive amounts of work, long periods of intense concentration, adequate time to get the work done, waiting on work from others and work tasks that are interrupted. Physical demands measured the duration, intensity and frequency of exposure based on 12 items that measured heavy lifting or awkward postures for example (Tinkerhoff, et al., 2010).

Nurse practice measures included autonomy, support, perceived patient safety culture, and job satisfaction with items from the Nurse Work Index- Revised. Physician nurse relationships, decision making into equipment selection, as well as input into cost saving measures and managerial supports were also measured using this tool (Tinkerhoff, et. al, 2010).

The results of this study demonstrated very few differences in working conditions of nurses in Magnet versus non-Magnet hospitals. Those nurses who worked in Magnet hospitals were less likely to work mandatory overtime or on-call shifts, although there were no differences in hours worked per week or day. There were no differences in psychosocial demands between Magnet versus non-Magnet hospitals. Likewise, other measures of working conditions such as nursing practice environment, patient safety culture, and overall job satisfaction demonstrated no significant differences (Tinkerhoff, et. al, 2010).

This study, however, drew some expected criticism from the Commission on Magnet Recognition. Specifically, the Chair and Chair-Elect of the Commission note first that the sample was a sample of convenience. Secondly, they emphasize that this was a secondary analysis of data that is 5 years old from hospitals that were designated as Magnet hospitals under the old Magnet model of 2005. In 2008, the Magnet model changed to include outcomes requirements (Ponte & Wolf, 2010).

Despite the criticism of the study, there is more to the successful retention of registered nurses than just a Magnet designation. There are external factors to the organization that affect job satisfaction as well as internal organizational factors.

Generations in the Workforce

There are currently four generations in the workplace (Coombs & Barriball, 2006; Zemke, et al., 2000). As previously stated, the preferences of these generations relevant to work environment differ which may lead to conflict and turnover (Fogg, 2009; Hahn, 2009; Wong, Gardiner, Lang, Coulon, 2008). Strategies directed toward

Improving job satisfaction leading to retention of nursing staff must take these differences into consideration in order to appeal to these generational differences and be successful in these efforts.

These four generations are demarcated by their years of birth. Authors disagree on specific years of birth of all four generations the most frequently reported range of the four generations are cited. A Veteran's birth is between 1922 and 1945; Baby Boomers range of birth is between 1945-1964; Generation Xers between 1964 and 1981; and the Millennials (or Generation Y) born 1980 for after (Altimier, 2006; Hahn, 2009; Sherman, 2006; Sudheimer, 2009; Twenge & Campbell, 2006; Weingarten, 2009; Wilson, Squires, Widger, Cranley, Tourangeau, 2008; Wong, et al., 2008; Zemke, et al., 2000).

The first group is the Veterans (1922-1945). Attributes of this group include hard-working, a strong sense of duty, they are grateful for a job, believe in lifetime employment and hierarchies, dedication, sacrifice, law and order, respect for authority and duty and honor (Altimeier, 2006; Weingarten, 2009; Wilson, et. al, 2008; Zemke, et al, 2000). They tend to be excellent mentors, value job security and stable work environments, are excellent at achieving consensus yet they are resistant to change (Wong, et al., 2008). This group accounts for 24% of the nursing workforce and most of these individuals in the nursing profession are in management roles (Sudheimer, 2009). Reported to number at 30 million people, this group still wields a great deal of power and influence as a great deal of the nation's government and business leaders are members of this generation (Sessa, et al., 2007).

The second group is the Baby Boomers (1945 – 1964). The Baby Boomers are estimated at 78 million people. This generation of individual was profoundly impacted by the Vietnam War, women's and civil rights movements and the John F. Kennedy and Martin Luther King assassinations, the walk on the moon, the sexual revolution, Woodstock and the Watergate scandal (Sessa, et al., 2007). This group was raised to question authority and grew up embracing the psychology of entitlement. The Baby Boomers were witness to the fall of political, religious and business leaders. As a result, there is a lack of respect for and loyalty to authority and institutions (Sessa, et al., 2007). Their self-esteem is dependent upon career success and they are known for their willingness to work long hours and work relentlessly to achieve their career goals, and are often described as "workaholics". This is the group that is most likely to remain loyal and attached to an organization and they are idealistic, optimistic and driven (Altmeier, 2006; Weingarten, 2009; Wilson, et. al, 2008; Wong, et. al, 2008; Zemke, et.al, 2000). This largest group in the workforce values security and a stable work environment; however, they have experienced downsizing and layoffs (Apsotalidis & Polifroni, 2006; Wong, et. al, 2008). Baby Boomers represent 47% of the workforce (Sudheimer, 2009).

The third group of generational cohorts is the Generation Xers (1964- 1981) who comprise about 44 million people. Sentinel events of this generation were the Challenger incident, the fall of communism and Rodney King. Generation Xers have a sense of immediacy and impatience. They have also grown up with family societal and financial insecurity, rapid change and lack of the solid traditions (Altmeier, 2006; Apostalidis & Polifroni, 2006; Fogg, 2009; Twenge & Campbell, 2006; Sessa, et al.,

2007; Weingarten, 2009; Wong, et. al, 2008; Zemke, et. al, 2000). They rarely stay with an employer more than three years instead looking for versatility in their careers and to gain experience and manage opportunity. They view jobs as temporary and value education and experience to enable them to advance in their roles, largely because they witnessed their hardworking parents laid off. As a result, in the work environment they are cynical and untrusting (Sessa, et al., 2007). In addition, they prefer to work independently, relying only on themselves to accomplish a task. They have not only been described as cynical but narcissistic, detached and expectant of immediate gratification. This group will not be loyal to an organization if their needs have not been met. On the other hand, they are very comfortable with diversity, change completion and multitasking (Sessa, et al., 2007) Twenty-one percent of the workforce is of the Generation X group (Sudheimer, 2009). During the 1990s the nursing profession had significant difficulties attracting members of this generation to the profession. They did not see nursing as offering the career growth or entrepreneurial opportunities available in other careers (Wieck, Prydun, Walsh, 2002).

The last of the generations in the work environment is the Millennials (Generation Y or Nexter group) born 1980 or later and it is estimated that there were 70 million. This is currently the smallest group of individuals in the workplace (Altimeier, 2006; Apostolidis & Polifroni, 2006; Twenge & Campbell, 2006; Sherman, 2006; Weingarten, 2009; Zemke, et. al, 2000). Characteristics of this group are a preference toward collaboration, team orientation and cohesive approaches to work and they prefer a balance between work and life. They are culturally diverse and view education as a key to their success, valuing skill development and new opportunities.

The Millennials are optimistic, confident, highly socialized and enjoy collective action but they are uncertain about the economy (Sessa, et al., 2007). Their expectation from their work environment is that they should be heard, respected and valued from the beginning. They also look for a work environment that is fun and engaging. They are multicultural and accept various cultures as a way of life. Similar to the Gen Xers, they readily accept technology as part of work solutions and are connected through technology 24 hours a day (Altimeier, Apostolidis & Polifroni, 2006; Sessa, et al., 2007; Sherman, 2006; Weingarten, 2009; Wilson, et. al, 2008; Wong, et al.2008, Zemke, et al, 2000). The Millennial group is the smallest group in the workforce at 8%, but they are the future of the nursing profession (Sudheimer, 2009).

Giving consideration to some of the internal and external factors relating to job satisfaction of nurses, the reactions of these generations will be different. For example, the processes of restructuring and re-engineering are quite a reality shock to Veterans who value job security and stability. The Baby Boomers who are raised to question authority are likely to openly question and criticize restructuring or re-engineering decisions and the propensity for cynicism and pessimism of the Generation X group may produce serious morale issues in the organization. The Millennials, who in general have lower satisfaction with jobs, will develop even greater dissatisfaction in this type of negative environment (Wong, et al., 2006).

In organizations that do not promote autonomy, they are likely to experience turnover among the Millennial generation who had high expectations from organizations. They expect to be heard, valued and respected from the beginning (Altimier, 2006; Wong, et al., 2006). Therefore, autonomy is an important concept to

this group. Both the Generation X group and the Millennials look to achieve work-life balance. Input and flexibility regarding work schedules is of key importance (Wong, et al., 2006). To reiterate, the Generation X group and Millennials compose approximately 55% of the workforce. Keeping them content in the work environment increases job satisfaction and decreases turnover (Sudheimer, 2009).

The role of nursing management in job satisfaction and retention of the Baby Boomers and the Generation X groups is of particular importance. Baby Boomers question authority and the Generation X group is unimpressed by authority figures (Wong, et al, 2006; Zemke, et al., 2000). It is unlikely that either group will tolerate autocratic leadership styles or leadership styles that do not encourage participatory management.

The work values of the younger generations of nurses, Generation X and Millennials have desires for rapid career advancement. Therefore, the nursing education domain where advancement is slow may not be appealing to these groups creating continued shortages of nursing educators in the future thereby compounding the nursing recruitment and retention issues (Wildon, B., Squires, M., Wider, K., Cranley, L., Tourangeau, A., 2008). Leadership in both the hospital and the nursing education environment must take these generational differences into consideration when planning retention strategies. The literature is plentiful on work environment factors that create positive or negative environments and strategies to improve job satisfaction. The gap in the literature rests in evaluating these concepts in accordance with the work values of the different generations. A "one size fits all" approach may be the failure of the targeted efforts to improve job satisfaction and retention. Although the

positive work environments denoted by the Magnet award embrace specific attributes, these attributes may not be the priority of the different generations, or specific attributes may be of particular importance to specific generations.

The combination of the organizational culture (work environment) and the values and opinions of the generations in that work environment converge to create success or failure in strategies to create positive work environments. Before the impact of the generations in the work environment can be understood in the context of nursing practice, it is necessary to understand the contributing factors to turnover among nurses. These factors are separated by those that occur externally to the work environment and those that occur internally to the work environment.

There is much in the literature regarding characteristics of positive work environments and their impact on job satisfaction of nurses. One of the characteristics noted is an appropriate number of nursing staff. In addition, two studies have demonstrated that appropriate staffing reduces length of stay, adverse patient outcomes and patient deaths. The American Nurses Credentialing Center has developed the Magnet award as a mechanism to signal nurses and the public about the stature of the hospital with respect to retention of nursing staff and consequently better patient outcomes. As a result, many hospitals have developed retention strategies around the Forces of Magnetism (Appendix A) to assure an adequate number of nurses in their workforce. However, the original research that was the foundation for the Magnet award took place in 1983 and new criteria developed in 1994 after a pilot program (American Nurses Credentialing Center, 2005).

Currently, there are four generations in the workforce with different values and attitudes about work. Whether these Job satisfaction strategies employed by hospitals will appeal to all four generations is unknown. The appeal to the youngest generation, the Millennials is of particular concern. This group is the future of the nursing profession and will be critical to retain in the hospital environment.

Conclusion

The current global nursing shortage is predicted to worsen severely. Compounding this threat is the current economic climate which effects hospital reimbursement and creates competing objectives. If hospitals continue to see registered nurses as an expense versus cost avoiders, work environments will continue to decline. Medical errors may increase and hospital environments become unsafe for patients (Aiken, et al. 2002; Aiken, et al., 2008; Auerbach, et al., 2006; Buerhaus, et al., 2009; Needleman, et al., 2006).

The literature is clear that fewer individuals are entering the profession of nursing (Buerhaus, et al., 2009; Lake & Freise, 2006; Gordon 2005; Needleman, et al. 2006). Therefore, recruitment of nurses can no longer be the primary focus for hospital administrators. The focus must be on creating positive work environments that lead to job satisfaction and ultimately low turnover of registered nurses. Poor work environments leading to high turnover results in patient safety concerns, quality of care issues, higher patient mortality and a financial burden. The work environment must be analyzed for the existence of absence of these components that are most critical to job satisfaction for nurses and thus retention of nursing staff, such as nurse autonomy,

nurse physician working relationships and the end product of these facets, staffing. Components that are weak must be strengthened; those that are nonexistent must be a priority. Currently, one mechanism to validate the existence of a positive work environment is the Magnet award. However, it should be noted that hospitals that do not have a Magnet award do not necessarily have poor working environments and poor job satisfaction. Magnet designated hospitals have been disproportionately large, urban teaching hospital but evidence demonstrates that favorable environments exist in hospitals functioning as sole employer in communities as well (Lake & Friese, 2006). One value of this designation is that it enables nurses seeking positions to readily identify a good working environment which is the foundation of the Magnet award.

The question remaining is will this be enough to sustain retention across all the generations existing in the nursing workforce or do some strategies for job satisfaction require diversification to appeal to nurses from each generation. Strategies may be redefined in the future to accommodate these group diversities.

Summary

In summary, there are multiple issues influencing nursing shortages that are of a different nature than experienced in the past. Yesterday's solutions to the nursing shortage will not be effective in alleviating factors such as an aging workforce culminating in a massive number of retirements of nurses in the next decade. Decreased enrollments in nursing programs limiting replacements of nurses will not be enough to meet the increasing demand for nurses in the future. The numbers of

nursing educators who will retire in the next decade will limit access to nursing programs.

Adding another level of intricacy to the problem of shortages is the presence of four different generations in the workplace. Hospital management must be educated in these generational differences among these generations. Recruitment and retention strategies must be developed that meet the needs of these four generations leading to retention. The key to today's shortage is retention through developing professional and positive work environments that encourage all generations of nurses to remain in the workforce and prepare for the future healthcare needs of the communities.

Chapter III

METHODOLOGY

Introduction

This chapter describes the methodology to answer the research questions and corresponding hypotheses. The methodology used to implement the study was primarily derived from the review of the literature. This review included multiple peer reviewed articles, several books and multiple websites. These resources are primarily located at the Walsh Library at Seton Hall University, Hackensack University Medical Center Medical Library and other libraries throughout the state. In addition, reference books were used to formulate the study approach; specifically, *Foundations of Clinical Research: Applications to Practice*, 2nd Ed. (Portney & Watkins, 2000) and *Nursing Research Principles and Methods*, 6th Ed. (Polit & Hungler, 1999).

After the approval from the Seton Hall Institutional Review Board (Appendix D), the pilot study was conducted at Hackensack University Medical Center (Appendix F) using the same methodology. The pilot at this facility was very successful, yielding 300 participants. The methodology and data results were presented at a Research Forum at Seton Hall University to an audience consisting of doctoral students, and faculty. There were no recommended changes to the methodology; therefore, the survey responses from the pilot hospital were combined with the survey responses from the other hospitals resulting in 620 participants for the study.

Research Design

The design of this study encompasses four types of research. It is a cross-sectional study design because it is based on observations of different age or developmental groups at one point in time. Cross-sectional studies are considered efficient and not to be used testing history as subjects are tested only once (Portney & Watkins, 2000). In addition, the design is especially useful for describing the status of phenomena or describing relationships between phenomena (Polit & Hungler, 1999).

The design is also descriptive and correlational. Descriptive as it is designed to describe the attitudes, conditions characteristics of individuals in specific populations or groups of individuals (Portney & Watkins, 2000). The design is correlational because it is intended to describe interrelationships or associations between two variables. Sometimes referred to as ex post facto research, this non-experimental design demonstrates a tendency for variation on one variable to be related to a variation in another variable (Polit & Hungler, 1999).

Lastly, the design is a between groups design because it addresses a set of scores that are attributed to the differences between different groups of individuals; one group is being compared to another group (Polit & Hungler).

Sampling Procedure

A non-probability, convenience sampling process was used to include registered professional nurses working in acute care hospitals. Those registered nurses who work in nursing homes, subacute facilities, rehabilitation facilities are not included. The rationale for this exclusion is two-fold. The research pertaining to work environment for

registered nurse has been focused on the acute care environment (Aiken, et. al, 2008; McClure, et. al, 1983). Secondly, the Magnet designation has only been awarded to acute care facilities (American Nurses Credentialing Center, 2012). Therefore, the comparison to Magnet designated facilities could not be achieved if nurses in these types of facilities were included.

Using non-probability sampling, it is not possible to ensure that each member of the targeted population can be selected. This process does however; present a greater risk of bias, or an unrepresentative sample (Polit & Hungler, 1999). A convenience sample was used which, as implied, is the use the most available individuals or subjects to participate in the study (Polit & Hungler, 1999). One of the most practical approaches to convenience sampling is consecutive sampling, defined as recruiting all individuals who meet the inclusion of exclusion criteria (Portney & Watkins, 2000). Participants in the study were volunteers, another characteristic of convenience sampling (Portney & Watkins, 2000).

Inclusion/Exclusion Criteria

Staff nurses had to be employed in the facility for 6 months or more to enable them to have enough time to develop opinions about the work environment. Participants must be staff nurses (bedside nurses) as these are the primary individuals expected to be impacted by work environments and affected by impending shortages. In addition, registered nurses are the primary focus of the Magnet program (Aiken, et. al, 2008; Buerhaus, et al, 2009; Lake & Friese, 2006). Excluded from the study are Unit Nurse Managers, Nurse Educators and Advanced Practice Nurses because these groups

impact the perceptions of work environment (Anthony, Standing, Glick, Duffy, Paschall, Sauer, Sweeney, 2005; Gordon, 2005; Sessa, Kabacoff, Deal, Brown, 2007; Upenicks, 2002; VanOyen Force, 2005).

There is another category of “licensed nurses” referred to as Licensed Practical Nurses (LPNs). Although they are licensed through state boards, LPNs are not the same as registered nurses. Registered nurses are permitted by their legal scope of practice to perform many more clinical activities than licensed practical nurses. Educational preparation to allow an individual to sit for a license examination as a registered nurse is longer and more intense. Registered nurses also have more clinical and ethical responsibilities than do licensed practical nurses. In addition, there are many more individuals holding licenses as a registered nurse than those who hold a license as a practical nurse. Registered nurses have a greater impact on the workforce productivity, quality of patient care and patient safety. They also make higher salaries thus they have a greater impact on healthcare spending as well (Buerhaus, et. al, 2009).

Unlicensed Assistive Personnel represent a broad category of hospital personnel which include Nursing Assistants, Patient Transporters, Technicians, or Unit Clerks. These are job categories that do not sit for boards but are assigned to nursing units to support the registered nurses and perform the non-nursing tasks for patient care. This group has not been the focus of past or present shortages (Buerhaus, et. al, 2009).

Advanced Practice Nurses (APNs) are also a group with different roles. This group has a requirement for a masters’ degree in their chosen specialty (i.e.: geriatrics, pediatrics). This category includes nurse midwives, clinical nurse specialists, nurse

practitioners and nurse anesthetists. Through entering in a collaborative agreement with a physician, or a group of physicians, these individuals may prescribe medications and bill for specific services (Buerhaus, et. al, 2009).

Both male and female registered nurses are included. The literature reports that only about 6% of the registered nurse workforce are male (Buerhaus, et. al, 2009). However, males in the nursing profession are increasing in numbers according to research done after this publication. More recent research reports that the number of men entering the profession has increased to 8.1% as of 2011. The highest categories of male nurses were nurse anesthetists at 41% (Payne, 2013). In the industry, this increase in males in the profession of nursing is largely credited to aggressive recruitment initiatives targeting men such as the Johnson & Johnson Men in Nursing Campaign and the American Assembly for Men in Nursing. Another factor is the economic recession (Soto, 2012).

Staff nurses employed in institutions for less than six months are excluded as they are too new in practice to be affected by specific elements in a negative or positive work environment. They are considered in the “honeymoon” phase of their employment (Hill, Cleary, Hewlett, Bleich, Davis, Hatcher, 2010; Jasper, 2005).

To summarize the inclusion and exclusion criteria are as follows:

- Included are all registered nurses employed as staff nurses in the hospital setting,
- Male and female registered nurses are included,
- Registered nurses who work fulltime or part-time are included,

- Registered nurses employed in leadership roles or as Advanced Practice Nurses are excluded,
- Also excluded are nurses employed for less than six months.

Setting

Initially, there were eight New Jersey acute care hospitals included in the study, four Magnet designated and four non-Magnet designated institutions. Care was taken to select hospitals of similar size and similar services to avoid confounding variables. For example, if the hospital were not a teaching hospital and did not have specific specialty services such as Labor and Delivery, this may influence an individual's decision to stay in the organization. Confounding variable contaminate the independent variables (Portney and Watkins, 2000).

The four Magnet designated hospitals were: Hackensack University Medical Center, Hackensack; The Valley Hospital, Ridgewood, Morristown Medical Center, Morristown, and Jersey Shore University Medical Center, Neptune. The non-Magnet designated hospitals were: Trinitas Regional Medical Center, Elizabeth; Overlook Medical Center, Summit; Newark Beth Israel Medical Center, Newark and St. Barnabas Medical Center in Livingston. Institutional Review Board applications were completed for all eight hospitals. Letters of approval were received from the individual Institutional Review Board of six of the hospitals, one of these letters was from Atlantic Health System which was the Institutional Review Board approval for both Morristown University Medical Center and Overlook Medical Center. Morristown University Medical Center and Overlook Medical Center are both under Atlantic Health System and

therefore one application covered both hospitals. The application or letter of approval for Jersey Shore University Medical Center (Meridian Health) were never returned to the investigator. These Institutional Review Board applications and subsequent letters of approval are included in Appendix J. A table of hospitals included and approval dates is also included as Appendix J.

Several other hospitals were approached but declined to participate. These were Holy Name Hospital, Teaneck (Magnet designated); Englewood Hospital and Medical Center, Englewood (Magnet designated), Coopers University Medical Center, Camden; Virtua Medical Center, Marlton; University of Medicine and Dentistry, Newark; St. Michaels Hospital, Newark. In addition, no response was received to the research inquiry from: JFK Medical Center, Edison; Bergen Regional Medical Center, Paramus; and St. Joseph's Medical Center in Paterson. The latter is also a Magnet designated hospital.

The study was open from September 1, 2012 through December 31, 2013. This was longer than originally anticipated due to an insufficient number of participants. During the course of the study an amendment was initiated to the Seton Hall Institutional Review Board (Appendix K) seeking permission to use the snowball sampling technique which did not require IRB approval per Dr. Ruzika, Chair of the Institutional Review Board. This is a process done in two stages. First, subjects who meet the inclusion criteria are identified and requested to participate. These individuals are then asked to identify other individuals who meet the criteria. In essence, this is a process of "chain referral" (Portney & Watkins, 2000). This process demonstrated a moderate increase in participants.

As a last resort, another request was initiated to the New Jersey State Nurses' Association to assist with increasing participation by providing a mailing list for nurses in the state (Appendix L). Once approved by the Institutional Review Board Chair, Dr. Mary Ruzika (Appendix L), five hundred letters of the approved letter of solicitation and the access information to the Seton Hall ASSET System were mailed to nurses across the state. This process resulted in additional participants. The final number of participants when the study was closed was six hundred and twenty.

Instrumentation

A demographic form was developed (Appendix F) and was included with the survey whether electronic or paper. The demographic form included gender of the participant as the importance of specific attributes of the work environment may differ between men and women (Buerhaus, et. al, 2009, p. 297-299). The age range of the participant is important as it confirms the generation into which the individual's responses should be segregated (Apostolidis, & Polifroni, 2006; Arsenault, 2004, Kupperschmidt, 2006; Sherman, 2006; Twenge & Campbell, 2008; Zemke, Raines, Filipczak, 2000). Authors differ in the birth ranges of the generations. Therefore, the most commonly reported birth ranges are used in the study as a generational demarcation. The literature also notes that traits of generations overlap in the later years of the timeframe of the generation and the earlier timeframe of the next generation (Altmeire, 2006; Apostolidis & Polifroni, 2006; Sherman, 2006; Sudheimer, 2009; Weingarten, 2009; Wong, et al., 2008; Zemke, et al., 2000). A demarcation in time is needed for separation of the participant data. Therefore, the year was split in

half in an attempt to accommodate for this variable of overlapping traits. These birth ranges are as follows:

Veterans-	January 1, 1922 to June 30, 1945
Baby Boomers -	July 1, 1945 to June 30, 1964
Generation X -	July 1, 1964 to June 30, 1981
Millennials -	After July 1, 1981

Employment status, (fulltime or part-time) was included as this may serve to explain an emphasis on flexible work schedules (Lake & Friese, 2006; Upenicks, 2002). Highest nursing degree is relevant because the more professional concepts surrounding work environments may be highlight with nurses who have advanced degrees (Trinkoff, Johantgen, Storr, Han, Liang, Gurses, Hopkinson, 2010; Upenicks, 2002). The level of education” was included by asking “the highest nursing degree earned” to determine if advanced degrees in nursing influences responses. Whether or not nursing is a secondary career was solicited as this may be a signal for future recruitment into the profession (Buerhaus, et. al, 2009). Years of experience in the current workplace, and the profession in general are an indicator of turnover and retention of staff in the organization (Bae, Mark, Fried, 2010; Coffman, 2008).

The Nursing Work Index – Revised (NWI-R), included as Appendix B, is the research instrument that was utilized to collect data among registered nurses pertaining to the importance of the attributes of the work environment which are consistent with the Forces of Magnetism (Appendix A) and reported to reflect job satisfaction. There are several versions Nurse Work Index-Revised (Aiken & Patrician, 2000; Lake & Friese, 2002; Lacey, Cox, Lorfing, Teasley, Carroll, Sexton, 2007; Li, Lake, Sales, Sharp,

Greiner, Lowy, Liu, Mitchell, Sochalski, 2007;). In addition, the instrument has been revised for use in several other countries such as Brazil, Japan, Iceland and South Korea to name a few (Bogaert, Clarke, Vermeyan, Meulemans, Van de Heyning, 2010, Gasparino, Guirardello, Aiken, 2011; Kania-Pak, Aiken, Sloane, Poghosyan, 2008; Kwak, Yu-Xu, Eun-Jung, 2010, Slater, O'Halloran, Connelly, McCormack, 2010).

As noted by Cheryl Wagner (2004), the original instrument called the Nursing Work Index was developed by Marlene Kramer and Laurin Hafner in 1989 that used the characteristics of the initial Magnet Hospital study and also an exhaustive review of the literature pertaining to job satisfaction and work values published between 1962 and 1986. Lastly, the tool was reviewed and critiqued by three of the four original researchers (Aiken & Patrician, 2000).

Content validity is the degree to which the contents of the tool adequately reflect the domain being measured (Portney & Watkins, 2000). Content validity of the tool was addressed by 3 methods. The first method was the review of 25 years of literature and work value and job satisfaction. Second was the development of the tool from the actual Magnet characteristics, and the last was the critique of the tool by experts. Criterion validity is considered to be the most practical approach to validity testing and the most objective (Portney & Watkins, 2000). Criterion validity was demonstrated in the high correlation ($r = -0.95$) of the job satisfaction scales with nursing turnover rates and within items of the scale ($r = 0.89 - 0.95$). This tool was designed to measure 4 variables: work values related to perceived productivity, staff nurse job satisfaction, work values related to job satisfaction and perception of staff nurses of an environment conducive to providing quality nursing care (Wagner, 2004). In 1994, Linda Aiken,

nursing researcher, revised the tool into the NWI-R which further refined the ability of the tool to measure the attributes of the organization which supported a professional nursing practice environment. Subscales measuring autonomy, relationships with physicians and control over work environment were added to the instrument (Wagner, 2004). Valda Upenieks (2003), another nursing researcher, further revised the NWI-R adding three additional subscales which measured self-governance, educational opportunities and organizational structures. This revised instrument was applied twice with very impressive results with alpha reliability coefficients of 0.823 – 0.882 (Wagner, 2004).

Criterion validity was also accomplished. The mean NWI scores for job satisfaction for hospitals were correlated highly with turnover rates ($r = .95$), meaning that the higher the job satisfaction of nurses, the lower the turnover in hospitals. In addition, quality of care scores and job satisfaction also demonstrated high correlation with one another: $r = 0.89$ to 0.95 ; $p > .001$ (Aiken & Patrician, 2000).

Linda Aiken again revised the NWI in 1997 to reflect the presence of hospital organizational structures that fostered a professional nursing practice model. Two “value” statements were deleted from the 65 item questionnaire and only the “presence” statements were retained. For example, “this work factor is present in my current place of employment” (Aiken & Patrician, 2000). This tool was further revised to capture three additional organizational attributes; relationships with physicians, autonomy in nursing practice and the control over the work environment. A fourth subscale was created from subscales already existing, to measure organizational support for caregivers. The end result is a 57-question survey tool using a 4 point Likert scale (Appendix B). The overall

Cronbach's alpha for the entire tool is 0.96. As cited by the authors, aggregate scores should be used to calculate the internal consistency reliability coefficient. The alpha for each subscale is: autonomy = 0.85; control = 0.91; relationships with physicians = 0.84; and organizational support = 0.84 (Aiken & Patrician, 2000). This version is the tool used for the study.

Validity of the instrument (content, construct, criterion-related) either in its entirety and/or the subscales was determined by several examples. From the perspective of content validity, the fact that Magnet hospital characteristics were used as the basis for the development of the items in the tool substantiated the content validity. In addition, three of the original researchers for the Magnet hospitals attested to the content validity in capturing the professional practice work environment models (Aiken & Patrician, 2000).

Construct and criterion-related validity was supported by the fact that NWI-R scores are correlated with certain organizational forms. These organizational forms are associated with better outcomes (Aiken & Patrician, 2000). This correlation has been demonstrated by a number of research studies cited by Dr. Aiken (Aiken & Patrician, 2000).

It was not necessary to contact the authors for permission to use the tool. It is noted in the article by Linda Aiken and Patricia Patrician (2000) that "Reproduction of this instrument for noncommercial use does not require permission from the authors" (Aiken & Patrician, 2000, p. 151). However, permission was received and is included in Appendix B.

Directions for scoring were provided by contacting the University of Pennsylvania; specifically, the office of Dr. Linda H. Aiken (Appendix B). Scoring directions indicate: "Score each item so that higher number indicate greater agreement. Thus, if strongly agree@ was coded and 1, and strongly disagree @ was coded 4, you must first reverse code (by subtracting each answer from 5) before calculating subscale scores. Once the coding is in the right direction, calculate nurse-specific subscale scores as the mean for the items in the subscale. The mean permits easy comparison across subscales. For hospital-level scores, calculated the item- level means at the hospital level. Then proceed with the standard computation for subscale scores. This approach permits all nurse responses, including responses of nurses who did not answer all items, to able included in the hospital score." Calculate an overall PES_NWI 'composite' score as the mean of the subscale scores. This approach gives equal weight to the subscales, rather than to the items. (Lake & Friese, 2002). Specific subscale information was not used in the results of this study.

The NWI-R research instrument been tested in multiple research studies and has been found to be a very reliable tool to assess the presence of organizational characteristics within a hospital that promote professional practice environments, nurse job satisfaction and retention of nurses (Aiken & Patrician, 2000; Slater, et al., 2009).

In order to establish the significance of these Magnet attributes to the four generations, data will be separated into specific generations based on birth dates of participants obtained from the organization.

While there are many research instruments that measure positive work environments and job satisfaction, none have been found that targets the needs of

professional nurses in the work environment and the organizational attributes that must be in place to accommodate the issues most important to retaining nursing staff. The NWI-R is the most appropriate tool for this study because it is reflective of the Magnet environment attributes (Slater, O'Halleran, Connolly, McCormack, 2009; Engstrom-Gerhardt & VanKuiken, 2008; Lake & Friese, 2006; Wagner, 2004).

The second research instrument used in this research is the Anticipated Turnover Scale (ATS), included in Appendix C. Developed by Hinshaw and colleagues (1987), this tool has been used to research with a number of nursing personnel to measure potential turnover (Barlow, Zangaro. 2010; Shader, Broome, Broome, West, Nash (2001). This instrument is designed to measure a nurse's intent to voluntarily leave a current position and to test hypothesized relationships among specific variables and explain actual and anticipated turnover among nurses. Researchers report that "the ATS has been significantly correlated with independent criterion variables including job satisfaction, cohesion, transformational leadership, turnover intent, organizational characteristics, hospital ethical climate and conflict" (Barlow, et. al, p.864). The objective behind using this tool is to avoid the unnecessary turnover of nursing staff (Barlow, et. al, 2010; Shader, et. al, 2001).

The ATS (Appendix C) is a 12-item Likert scale with ranges of responses from 1 to 7; 1 corresponding to "strongly agree" and 7 which corresponds to "strongly disagree." The higher the score of the participant, the more likely the individual will leave their current position. There is an equal number of negatively and positively worded items throughout the scale and takes approximately 5 minutes to complete

(Barlow, et. al, 2010). Reliability and validity of this ATS was originally tested using a study sample of 1,597 participants which included 63% registered nurses, and 37% of licensed practical nurses and nursing assistants. Reliability estimates from this study conducted in Arizona using the Cronbach's alpha was 0.84 overall (Barlow, et. al, 2010). The Cronbach Alpha for each of the components of the scale was from 0.70 to 0.90 (Shader, et. al, 2001). Scoring guidelines for the ATS are included in Appendix C.

Barlow and colleagues report 12 studies using the ATS instrument in their meta-analysis of the reliability and validity of the Anticipated Turnover Scale (Appendix C). As cited by Barlow and colleagues, meta-analysis is a process which provides a way to synthesize results across studies and examine factors affecting the variability in construct validity between the ATS and independent criterion variables across studies (Glass, 1976). The meta-analysis of these 12 studies revealed that the overall mean score reliability of the ATS across samples ranged from 0.86 to 0.91 and $P < 0.0001$, with the overall mean being 0.89 (Barlow, et. al, 2010).

Permission to use the Anticipated Turnover Scale was obtained from the authors, Dr. Ada Hinshaw and Dr. Jan Atwood. The document granting permission is included in Appendix C.

Data Collection

Hospitals were requested to provide a hospital based institutional research assistant a list of e-mail addresses for all employed registered staff nurses. The data was sorted by the individual research assistant, excluding management positions as described in the exclusion criteria and any nurses with a hire date of less than six

months. The exception to this process was St. Barnabas hospital in Livingston who indicated that nurses did not have hospital e-mail addresses and requested paper copies of the survey. Paper copies of the survey with a letter of solicitation (Appendix G) attached were delivered to the hospital and distributed by the research assistant.

The electronic Academic Survey System & Evaluation Tool® (ASSET) through Seton Hall University was used as mechanism for participants to complete the surveys. The use of this system completely removed the study from the participating hospital's authority. This was an important issue because nurses are often surveyed for various purposes and are concerned about access to that information by their employer.

The research assistants in the institutions involved in the pilot study were trained using a training script (Appendix H). After approvals were obtained from the participating hospital's Institutional Review Boards (Appendix M), the research assistants sent out an e-mail, or distributed paper copies, to all staff nurses who met the inclusion criteria within the hospitals inviting them to participate in the research study. Attached to this e-mail was the Letter of Solicitation (Appendix G) and the link to the ASSET system. A paper copy of the survey was offered to those who preferred this method of completing the survey. With exception of St. Barnabas Medical Center, no paper copies were requested.

For those who might request paper copies, five manila envelopes containing the solicitation letter, demographic information, survey questionnaire and a number 2 pencil were given to the research assistant. It was understood that manila envelopes containing the surveys to be completed would be hand delivered to the participants by the research assistant. The participant was requested to complete the survey, place it

back in the envelope, seal the envelope and return it to the research assistant within one week. Completed surveys were then delivered to the investigator for analysis. However, there were no additional requests among the participants for a paper copy, and no completed paper copies of surveys were received from St. Barnabas Medical Center.

Anonymity of participants was assured. The ASSET system assigns a number to the participant. Also, the system required the investigator to put in a time frame for the survey to be completed. The principal investigator is unable to view the results until the survey completion date passes.

Analyzed data is retained on an external zip drive kept in the possession of the principal investigator. The only other individuals with access to these surveys will be the members of the dissertation committee upon request. Protection and confidentiality has been maintained throughout the duration of this research project. No personal identifying information has been collected from participants. Additionally, upon completion of the study, any paper data will be kept in a locking file cabinet in the researcher's home for three years after which time the data will be destroyed. Similarly, all electronic data will be stored on a USB memory key with access to the file protected by use of a password only known to the researcher. The electronic completed surveys will be retained on a memory key for a 3 year period in the secured filing cabinet, upon which the data will be destroyed.

In consideration of the number of hospitals involved in the study, the corresponding number of Institutional Review Board applications, and the number of

participants, it was necessary to develop a study process flow chart which is presented below:

Figure 2: Study Process Flow Chart

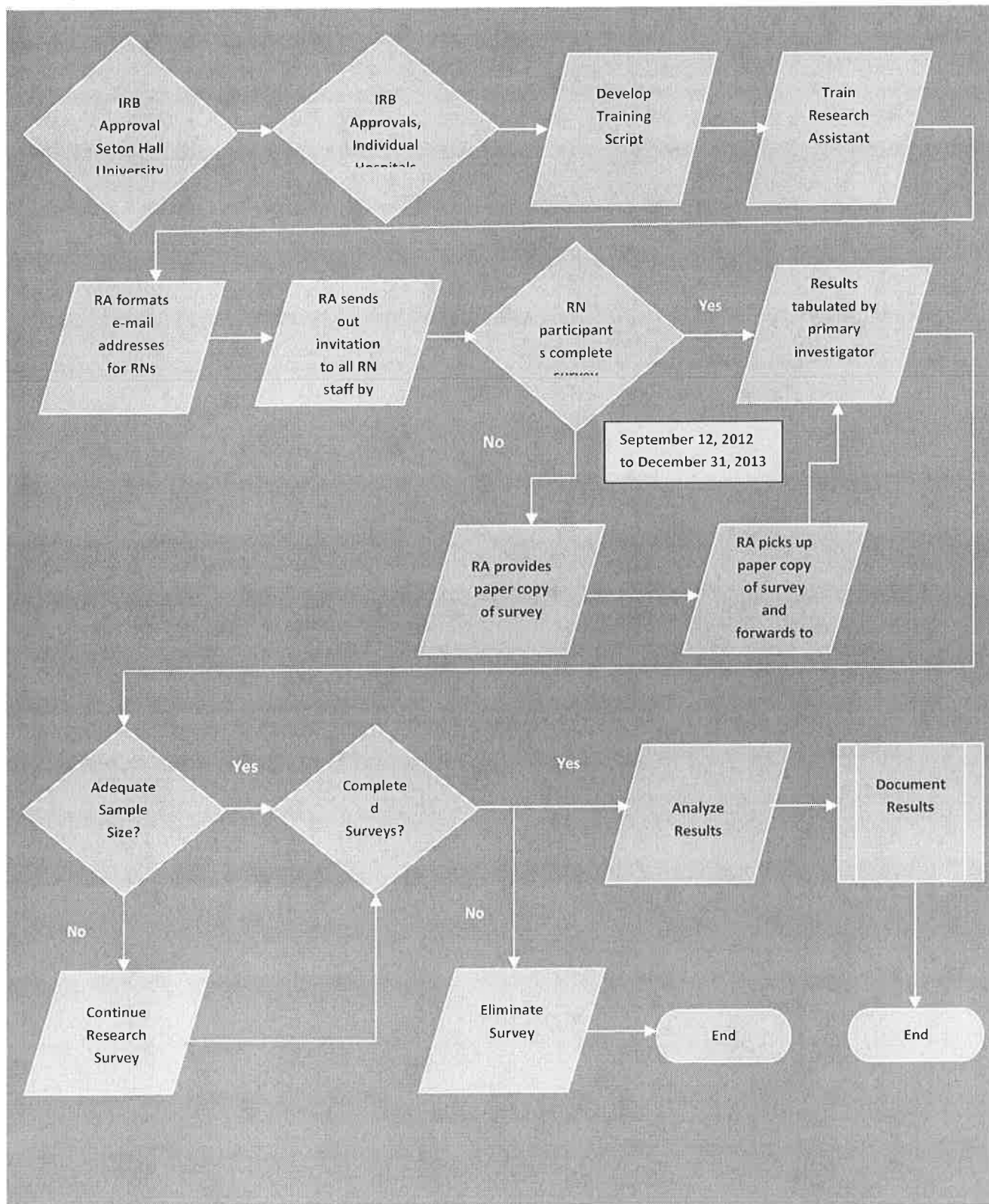


Figure 2: Principal Investigator Self-Developed Process Flow Chart. This flowchart demonstrates the flow of information for the research project.

Data Analysis

The sample size is critical to the legitimacy of the study; essentially, the larger the sample size, the greater the statistical power. A power analysis was used to determine the minimum number of participants (Portney & Watkins). A planned comparison or a priori was used because it was planned prior to the data collection. The effect size was 0.2 (medium effect); the alpha was 0.01; the power was 0.85; the numerator differential 2; and, the number of groups was 3. The effect size of 0.2 was used because according to Cohen (1988), this is a standard for survey design. The medium effect size is reasonable for this type of survey and this population assuming a significance of 0.05. In addition, this was a convenience sample, only registered nurses in New Jersey were requested to participate so there was an effort to avoid a Type I error (Cohen, 1988; Pallant, 2010). The end result of the calculation was a sample size of 425. The total number of surveys was 840. Two hundred and twenty of these were incomplete and therefore eliminated from the data. The total number of surveys for the Nursing Work Index-Revised was 620 and the Anticipated Turnover Scale was 605. The sample size calculation information is summarized in the table below:

*Table 1**Sample Size Calculations*

- Power Analysis
 - Two Way ANOVA
 - A priori
 - Effect Size f : .2, medium Effect
 - Alpha: 0.01
 - Power (1-Beta): .85
 - Numerator df: 2
 - Number of groups: 3
 - Total estimated sample size: 425
-

Data categories were nominal, ordinal and interval. Nominal data is that which represent category labels only such as labels for identification. The ordinal data was that rank ordered on the basis of a defined characteristic such as the highest degree earned. Interval data is the data included on the Nursing Work Index-Revised and Anticipated Turnover Scale surveys in that there are known or equal distances between the intervals (Portney & Watkins, 2000).

The demographic data is displayed in tables using simple descriptive statistics, such as the mean, standard deviation and frequencies. Tables displaying total

participants, total participants separated by Magnet versus non-Magnet designated hospitals (two groups) and the generations (four groups) were assembled from the data. Descriptive statistics are used to describe and summarize sample characteristics and their relationships (Portney & Watkins, 2000).

For the data obtained in the surveys, inferential statistics were used to test hypotheses and estimate population characteristics from the sample data. Assumptions underpinning inferential statistics are based on the concepts of statistical reasoning: probability and sampling error. "Probability is the likelihood that any or one event will occur, given all the possible outcomes" (Portney & Watkins, p, 388). Sampling error is based on the assumption that samples are random and valid representatives of the population characteristics (Portney & Watkins).

Statistical Analysis

Statistical analyses of data were accomplished using SPSS Software version 21.0. There were several statistical procedures used to analyze data using the *SPSS Survival Manual, 4th Edition*, (Pallant, 2010) as a reference guide. Initially, the Kolmogorow-Smirnov test for normality was used. The Nursing Work Index-Revised statistic was 0.01 and the Anticipated Turnover Scale was 0.00. These results being less than 0.05 indicated that the use of parametric statistics was acceptable (Pallant, 2010).

The Nursing Work Index Revised and the Anticipated Turnover Scale were both tested for reliability (internal consistency) using the Cronbach's alpha. Results for the Nursing Work Index-Revised composite score was 0.96 and the Anticipated Turnover

Scale, 0.85 both of which were consistent with what is reported in the literature (Aiken & Patrician, 2000; Lake and Friese, 2002; Barlow, et al., 2010).

Statistical procedures which analyze group variances (ANOVA) were used as well. Specifically, One-Way ANOVA, Two-Way ANOVA and the MANOVA which is a multivariate analysis of variance. According to Portney & Watkins (2000), ANOVA is a powerful analytic tool used to determine if the observed differences among a set of means are greater than would be expected by chance alone. One-Way ANOVA is used when the design involves one independent variable with three or more levels whereas the Two - Way ANOVA involves the analysis of two or more independent variables (Portney & Watkins, 2000). Lastly, the MANOVA which is an extension of analysis of variance was used when there was more than one dependent variable in the analysis (Pallant, 2010). Independent variables in the study were Magnet designation and non-Magnet designation and dependent variables were job satisfaction as measured by positive work environment attributes and anticipated turnover as measured by the Anticipated Turnover Scale.

Prior to reviewing the ANOVA or MANOVA results, the Levene's test for homogeneity of variance was reviewed to assure a result greater than 0.05. This test determines if the variance in the scores is the same for each of the groups. A result greater than 0.05 indicates that the assumption of homogeneity of variance was not violated (Pallant, 2010). The Levene's statistics for the data were all above 0.05. therefore, the assumption of homogeneity of variance was not violated.

The Mahalanobis distance statistic was used to test multivariate normality in the MANOVA analysis. Mahalanobis distance is the distance of a specific case from the

centroid of the remaining cases. The centroid is created by the means of all the variables and will identify any cases with a strange pattern of scores. Too many outliers or extreme scores will necessitate deleting cases or transforming variables. This value is then compared to a value in the chi-square table. If the value is less than the critical value, there are no substantial outliers. (Pallant, 2010). The Mahalanobis distance for the Nursing Work Index-Revised was 6.08 and the Anticipated turnover scale was 7.07; less than the critical value of 11.07, therefore normality was not violated.

The Tukey's Honestly Significant Difference (HSD) was used as the post hoc test with all significant differences found in the data analysis to avoid a Type I error. A Type I error occurs when the null hypothesis is incorrectly rejected. The alpha for the Tukey's HSD is set at 0.05 (Portney & Watkins, 2000). SPSS 21.0 version software does not calculate a Tukey's HSD for less than three variables. Therefore, the Tukey's HSD for the significance found pertaining to Magnet versus non-Magnet hospitals was calculated using *Virtual Statistician Software* (Hall, 1998), which is available online. The result of the Tukey's HSD for these variables was 7.45; higher than the critical value of 3.64, and therefore significant. The data analysis information is summarized in the table below.

*Table 2**Data Analysis*

- Data Categories
 - Ordinal
 - Nominal
 - Interval
 - Statistics
 - Descriptive Statistics (mean, median, mode and standard deviations)
 - Inferential Statistics (significance $p = \leq 0.05$)
 - Parametric Statistics (SPSS version 21.0 used for analysis)
 - Tukey's Post Hoc Analysis with $p = \leq 0.05$)
 - Demographics
 - Used key demographics identified in the literature
-

Chapter IV

RESULTS

Introduction

The purpose of this study was to determine if there were differences in nurses' perceptions of job satisfaction with regards to workplace environment and attributes among the different generations of nurses working in Magnet designated and non-Magnet designated hospitals. The secondary purpose was to determine if there were differences in nurses' perceptions of anticipated turnover (retention) among the different generations of nurses working in Magnet designated versus non-Magnet-designated hospitals. The research instruments used in the study were the Nursing Work Index-Revised and the Anticipated Turnover Scale (Appendix C). Recruitment of participants proved to be challenging.

Characteristics of the Sample

The pilot study was conducted at Hackensack University Medical Center in Hackensack, New Jersey. The survey was administered through the hospital's e-mail system which included a letter of solicitation assuring confidentiality (Appendix G). All registered professional nurses employed by the hospital were invited to participate. Excluded were those registered nurses in management roles, registered nurses working for less than six months, Nursing Educators or Advanced Practice Nurses (APNs). This pilot was very successful in terms of participants with an ending total of 300. There were 417 total participants; 117 of these surveys were excluded from the study because they were incomplete. The methodology used for the pilot remained the same for the

dissertation study. Participants were recruited from seven other hospitals in New Jersey initially through completion and approval of Institutional Review Board applications for each specific hospital (Appendices M).

The survey was open from September 1, 2012 to December 31, 2013; longer than anticipated. However, the number of participants was unsatisfactory after several months. Amendments to the original Seton Hall University Institutional Review Board were completed to request permission to use the snowball technique and finally mailings to 500 registered nurses in New Jersey through a mailing list provided by the New Jersey State Nurses' Association (NJSNA). The research study ended with 545 participants; 125 of these were excluded because they were incomplete. Combined with the participants from the pilot study, the number of surveys used for data analysis was 620.

Demographic Characteristics

The demographic questionnaire (Appendix E) asked for several pieces of information: 1) whether or not the hospital in which the participant was employed was a Magnet designated hospital; 2) the participant's gender; 3) their birth date range to identify the generational cohort; 4) their years of experience as a registered nurse and their years of experience as a registered nurse in their current position; 5) their highest educational degree; and, 6) whether or not nursing was a second career. The rationale for these inquiries has been previously described in Chapter III.

The demographic information is summarized below in tables 3, 4, 5, 6:

Table 3

Magnet Designation, Second Career

	Number		Percentage	
	Yes	No	Yes	No
Criteria:				
Magnet Designation	505	115	81.0%	19.0%
Second Career	122	498	19.2%	80.3%

In terms of Magnet designation, there were a disproportionate number of participants from the Magnet designated hospitals versus the non-Magnet designated hospitals. The reason for this may be the emphasis placed on nursing research by the Magnet criteria reflecting the Forces of Magnetism (Appendix A). This imbalance of the participants from Magnet and non-Magnet designated hospitals has resulted in the inability to draw any reliable conclusions from this data. However, there is information from 115 participants which should not be ignored and may point to a direction for future research. Tables 4 through 7 display the remainder of the information from the Demographic Questionnaire.

Table 4

Gender

	Number	Percentage
Female	17	6.0%
Male	583	94.0%
Total	620	100.0%

The nursing profession remains a female dominated amongst this group at 94.0% females and 6.0% males. This is somewhat lower than the numbers of males in the nursing profession across the country. In a document titled *The U.S. Nursing Workforce: Trends in Supply and Education* (Health Resources and Services Administration, 2013) reports 9.1% of the nursing workforce were male as of 2011.

Table 5

Generational Cohorts

	Number	Percentage
Veterans (January 1, 1922 to June 30, 1945)	9	1.5%
Baby Boomers (July 1, 1945 to June 30, 1964)	294	47.4%
Generation X (July 1m 1964 to June 30, 1981)	215	37.4%
Millennials (born after July 1, 1981)	102	16.5%
Total	620	100.0%

The literature also speaks to the generational beliefs and values as overlapping to some extent from one generation to the next (Apostolidis & Polifroni, 2006; Cennamo & Gardner, 2008; Hahn, 2009; Zemke, et. al, 2000). There were only nine Veteran cohort participants in the data which was not totally unexpected. Because there is such a small sample of Veterans among these participants, these nine surveys were combined with the Baby Boomer cohort for analysis.

Table 6

Highest Educational Degree

	Number	Percentages
Type of Degree:		
Associates Degree	79	12.7%
Diploma	51	8.2%
Bachelor's Degree in Nursing	314	50.6%
Bachelor's Degree, Other	41	6.6%
Master's Degree in Nursing	91	15.0%
Masters, Other	32	5.2%
Doctorate in Nursing	7	1.1%
Doctorate, Other	3	0.5%
Total	620	100.0%

According to the New Jersey Nursing Initiative (Robert Wood Johnson Foundation & Heath Research Educational Trust of New Jersey, 2012), 25% of all nurses have an Associate's degree, 44% in New Jersey have a Bachelor's degree and 14% of nursing in the state have a Master's degree. The participant information regarding degrees is somewhat higher than these statistics. Doctoral prepared nurses are reported at 1% which is consistent with this data. The smaller numbers of nurses educated at the master's and doctorate level is at the center of the issue of shortage of nursing educators, both current and predicted (Buerhaus, et al., 2009; Flynn, 2007; Gordon, 2005; Wildon, et al., 2008). Without an adequate number of qualified nursing educators, the number of nursing students required to graduate for the future cannot be accommodated.

Nursing experience of participants was diverse, both experience in general and experience in their current hospital of employment. The mean overall experience for all participants was 19.7 years. Years of experience in their current position had a mean of 13.4. Nurses in this participant group were very experienced and in addition, there appeared to be fairly good retention among the participants with an average of 13.4 years in their current position, however there was enough diversity in experience among the participants to allow for a diversity of perspectives on their work environment.

Table 7

Years of Experience in Nursing and Experience in Current Positions

Category	Mean	Median	Mode	STD.	Skewness	Std. Error	Kurtosis	Std. Error
Experience in Nursing	19.72	20.00	30.00	12.33	.180	.098	-8.92	.196
Experience Current Position	13.36	11.00	1.00	10.23	.659	.098	-.552	.196

The standard deviation reflects the variability or dispersion of scores around the mean; the larger the standard deviation, the more variability (Portney & Watkins, 2000). The skewness value provides information about the symmetry of the information about the distribution from the participants. Positive skewness indicates values are clustered to the left at the lower values; whereas negative values indicate a clustering to the right or higher values (Pallant, 2010). The skewness in both categories of experience was positive.

Kurtosis provides information about the “peakedness” of the distribution within the sample. A perfectly normal distribution would present with a value of 0 which is noted to be rather uncommon in the social sciences. A positive kurtosis value indicates that the distribution is peaked, clustered the center. Kurtosis values below 0 indicate a distribution that is flat or too many cases in the extremes (Pallant, 2010).

The Nursing Work Index – Revised

Tests for normality are done as most parametric statistical techniques assume that the distribution of scores on the dependent variable is normal, a symmetrical, bell-shaped curve which has the greatest frequency of scores in the middle and smaller frequencies towards the extremes (Pallant, 2010). Therefore, the first statistical procedure used was to assess normality. Information pertaining to the normality of this sample is presented in Figure 2 histogram and Table 8, statistical data.

Figure 3. Histogram of NWI-R Total Scores

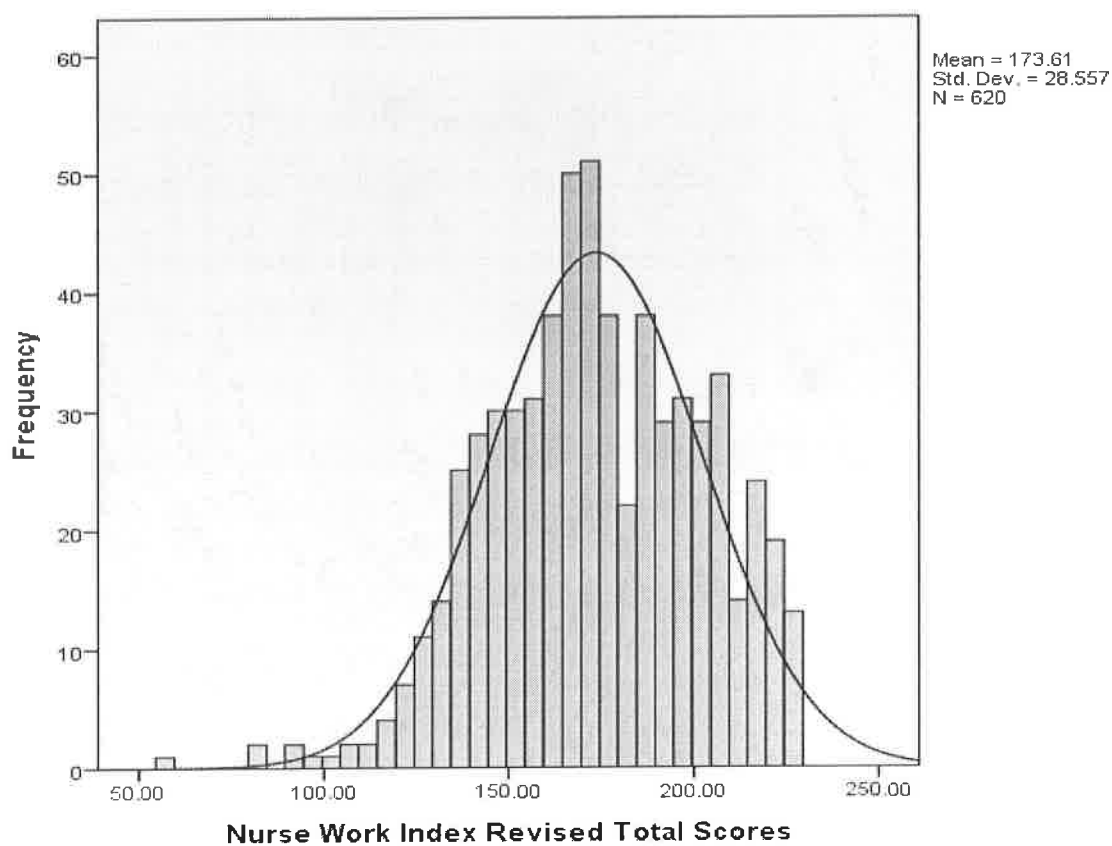


Figure 3: Histogram of NWI-R Total Scores shows normal distribution.

Table 8

Tests of Normality for the Nursing Work Index-Revised

	Min	Max	SD	Skewness	Std. Error	Kurtosis	Std. Error
Nursing Work Index-Revised Total Scores	57.00	228.00	28.56	-.259	.098	-.038	.196

This statistical procedure also provides the Kolmogorov-Smirnov statistic and the Shapiro-Wilk statistic which also assesses the normality of the distribution of scores. A non-significant result, a significance of more than 0.05, indicates normality (Pallant, 2010). In this case, the Kolmogorov-Smirnov statistic was .011 and the Shapiro-Wilk statistic was .000. These results would indicate a violation of the assumption of normality as they are less than 0.05, however according to Pallant (2010) this is common with large samples. In review of the literature, this investigator was unable to find a definition of a “large” sample as it pertained to these tests of normality. Therefore, the use of parametric statistics was justified based on this information.

Cronbach’s coefficient alpha was the second procedure conducted. The Cronbach’s alpha is a test for internal consistency and evaluates whether the items on a scale are measuring the same construct or if they are redundant, in which case items could be discarded to improve homogeneity (Portney & Watkins, 2010). The Cronbach’s alpha for the Nursing Work Index-Revised (Appendix B) is reported in the literature to be 0.96 (Aiken & Patrician, 2000). Results for the Cronbach’s alpha for this research sample was also 0.96

As previously mentioned, the Nursing Work Index-Revised allows for four response options to a statement: Strongly Agree, Somewhat Agree, Somewhat Disagree and Strongly Disagree. The frequency distributions of the responses to these options were calculated in order to examine the differences between participants from the Magnet designated and non-Magnet designated hospitals. The frequency distribution information is displayed in Figure 4.

Figure 4: Frequency Distribution of Responses to the NWI-R

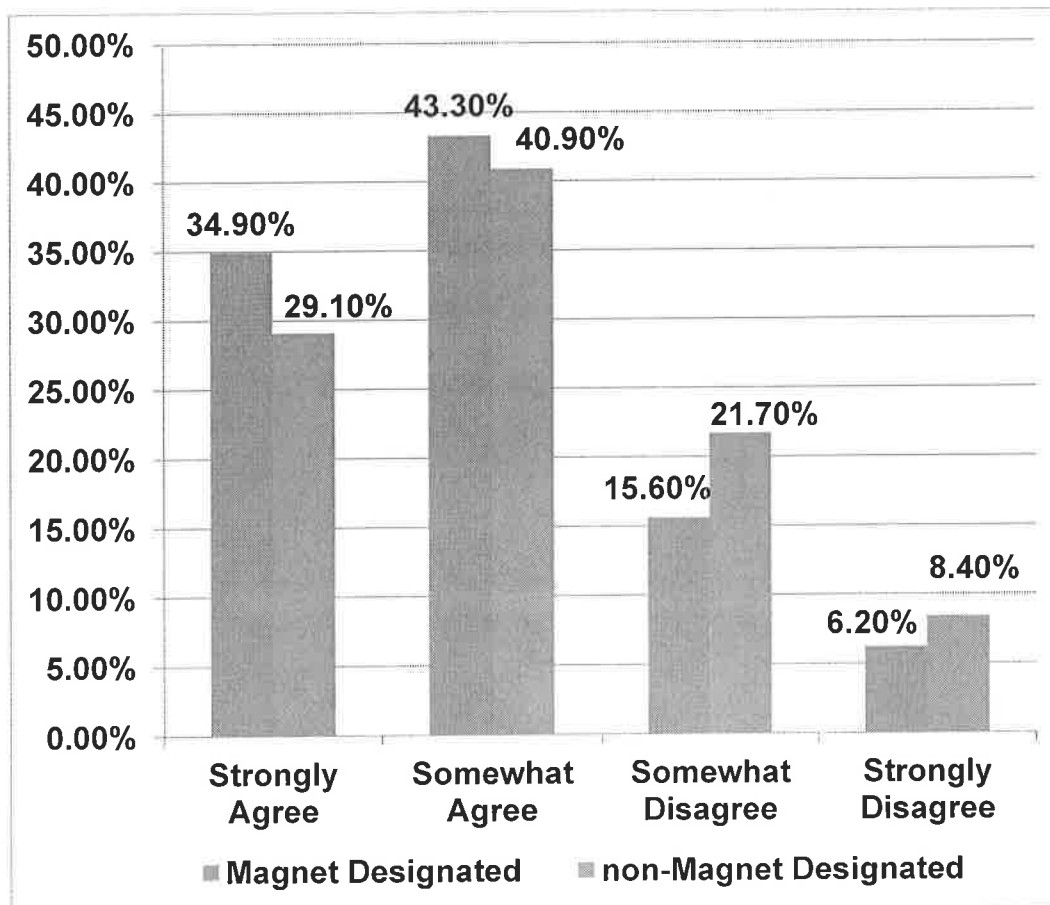


Figure 4: Bar Graph demonstrating frequency distribution of responses to the NWI-R, Magnet versus non-Magnet designated hospitals. Magnet designated hospitals had more positive answers to the Nurse Work Index-Revised.

Standard deviations were also similar with the Magnet designated group having a mean of 175.19 and a standard deviation of 27.67. The non-Magnet group's mean was 166.68 with a standard deviation of 31.37. The means and standard deviations are represented in Figure 5.

Figure 5: One-Way ANOVA of Nurse Work Index-Revised Responses

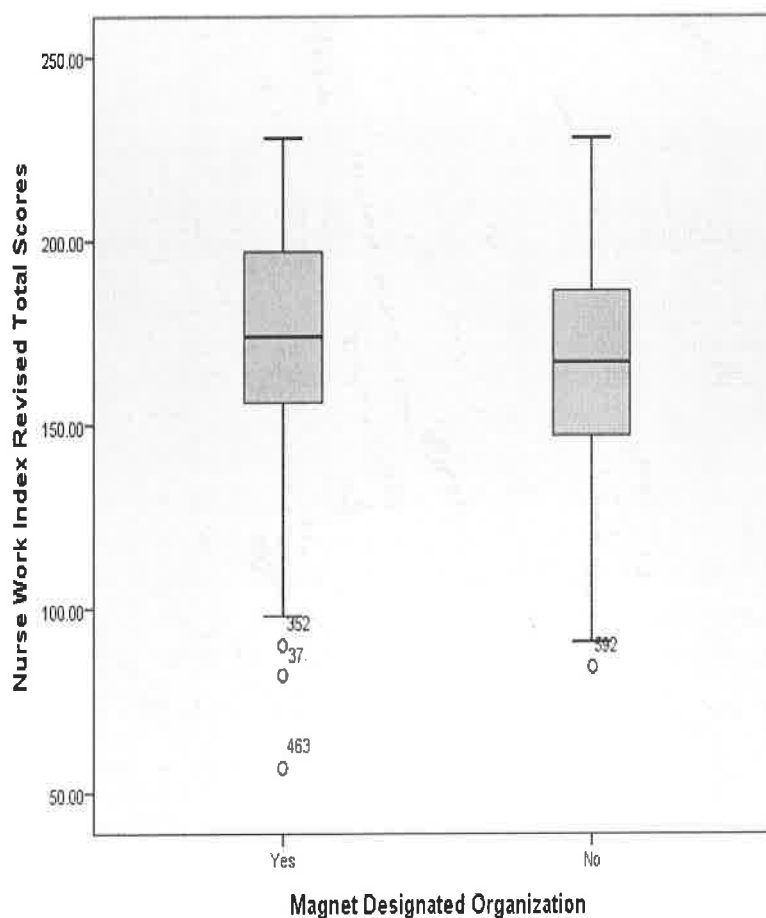


Figure 5: Bar Graphs: One-Way ANOVA of NWI-R Responses, Magnet versus non-Magnet designated hospitals demonstrates a significant difference ($p = .00$) in the attributes of a positive work environment leading to job satisfaction.

A One-Way ANOVA procedure was then used to test the first hypothesis. This statistic is one of a number of options allowing the researcher to perform an analysis of variance. It is used in research designs where there are three or more conditions or groups which are compared (Portney & Watkins, 2000). The One-Way ANOVA involves one independent variable which in this case was the Magnet designation.

Prior to review of the ANOVA statistic, the Levene's test of Equality of Variances was reviewed. Parametric techniques make the assumption that samples are obtained from populations of equal variances or the variability of scores for each of the groups is similar (Pallant, 2010). The Levene's test result was .171, higher than 0.05 so the assumption was not violated.

The research questions and hypotheses are provided as a review with the results following:

Research Question 1: Is there a significant difference ($p = \leq 0.50$) in job satisfaction with regards to workplace environment and attributes as measured by the Nursing Work Index-Revised (NWIR) among all registered nurses working in Magnet designated and non-Magnet designated hospitals?

Hypothesis 1: Job satisfaction among all nurses with regards to workplace environment and attributes as measured by the Nursing Work Index-Revised (NWI-R) will be higher in Magnet designated versus non-Magnet designated hospitals. Significance is determined at $p = \leq 0.50$.

The answer to this question is “yes”, there is a significant difference in the attributes of a positive work environment leading to job satisfaction among nurses working in Magnet designated and non–Magnet designated organization. The specific statistics are reported.

Table 9

One-Way ANOVA: NWI-R, Magnet versus non-Magnet Designated

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6792.79	1	6792.79	8.43	.004
Within Groups	497990.08	618	805.809		
Total	504782.869	619			

The F ratio is also calculated in this procedure. This ratio represents between the groups divided by the variance within the groups. A large F ratio indicates that there is more variability between the groups caused by the independent variable than there is within each group (Pallant, p.249).

The effect size of the difference is also known as Eta squared, is calculated by dividing the sum of the squares between groups by the total sum of the squares (Pallant, 2010). In this case, the resulting eta squared is .013 or 1.3%. According to Cohen (1988) this is a small effect size.

Tukeys Honestly Significant Difference was used as the post hoc test. SPSS version 21.0 does not calculate a post hoc test for fewer than three groups (Magnet versus non-Magnet). Therefore, the Virtual Statistician program (Hall, 1998) was used

to calculate the Tukey's HSD value. The value was 7.45 which was higher than the critical value of 3.64 and therefore significant.

This significant difference between Magnet and non-Magnet designated hospitals was not unexpected, and consistent with the literature. There have been numerous research studies examining job satisfaction between Magnet and non-Magnet designated hospitals as well as differences in patient outcomes. In these studies it has been repeatedly reported that the Magnet designated hospitals have demonstrated higher job satisfaction among the nursing staff than the non-Magnet designated hospitals as well as better patient outcomes (Aikens, Havens, Sloane, 2009; Armstrong & Laschinger, 2006; Brady-Schwartz, 2005; Engstrom-Gerhardt & VanKuiken, 2005; Gordon, 2005; Hess, DesRoches, Konelan, Norman, Buerhaus, 2011; McClure, Poulin, Sovie, Wandelt, 1983; McHugh, Kelly, Smity, Evan, Wu, Vanak, Aiken, 2013; Schmalenberg & Kramer, 2008; Stimpfel, Rosen, McHugh, 2014).

As noted however, the effect size is very small at 1.3%. What was learned in this research is that some of the non-Magnet designated hospitals included in the study had adopted and implemented the Magnet philosophies, but choose not to apply for the designation due to the expense of achieving and retaining the designation. This approach may have led to increased job satisfaction among their nursing staff in the organization as well as account for the small effect size.

Research question 2 examines information from the perspective of job satisfaction from the perspective of the generations (Veterans/Baby Boomers, Generation X and the Millennials) as well. The second research question and corresponding hypothesis are:

Research question 2: Is there a significant difference ($p = \leq 0.050$) in job satisfaction with regards to workplace environment and attributes as measured by the Nursing Work Index-Revised (NWI-R) among the four generations of registered nurses?

2a. Is there a significant difference ($p = \leq 0.05$) in job satisfaction with regards to work place environment and attributes as measured by the Nurse Work Index-Revised (NWI-R) among the Veteran generation of registered nurses?

2b. Is there a significant difference ($p = \leq 0.05$) in job satisfaction with regards to work place environment and attributes as measured by the Nurse Work Index-Revised (NWI-R) among the Baby Boomer generation of registered nurses?

2c. Is there a significant difference ($p = \leq 0.05$) in job satisfaction with regards to work place environment and attributes as measured by the Nurse Work Index-Revised (NWI-R) among the Generation X generation of registered nurses?

2d. Is there a significant difference ($p = \leq 0.05$) in job satisfaction with regards to work place environment and attributes as measured by the Nurse Work Index-Revised (NWI-R) among the Millennial generation of registered nurses?

Hypothesis 2: High job satisfaction with regards to workplace environment and attributes as measured by the Nurse Work Index-Revised (NWI-R) will correlate with the four generations of nurses.

H2a High job satisfaction with regards to workplace environment and attributes as measured by the Nurse Work Index Revised will correlate with the work values and beliefs of the Veterans Generation. Significance is determined at $p = \leq 0.05$.

H2b High job satisfaction with regards to workplace environment and attributes as measured by the Nurse Work Index Revised will correlate with the work values and beliefs of the Baby Boomer Generation. Significance is determined at $p = \leq 0.05$.

H2c High job satisfaction with regards to workplace environment and attributes as measured by the Nurse Work Index Revised will correlate with the work values and beliefs of the Generation X generation. Significance is determined at $p = \leq 0.05$.

H2d High job satisfaction with regards to workplace environment and attributes as measured by the Nurse Work Index Revised will correlate with the work values and beliefs of the Millennial *generation*. Significance is determined at $p = \leq 0.05$.

The answer to question 2 is “no” which is demonstrated by the means, standard deviations and the Two-Way ANOVA statistical procedure. The Two – Way ANOVA is another procedure to analyze variance among groups when there are two independent variables (Portney & Watkins, 2000). In the participant information there are three, specifically the three generations. As previously reviewed, due to the low number of Veteran cohort participants (see Demographic Information), the Veteran and Baby Boomers participants were collapsed into one group: Veterans/Baby Boomers. Thus, even though the hypotheses address four generations, data will show three generational cohorts with this combination of the two.

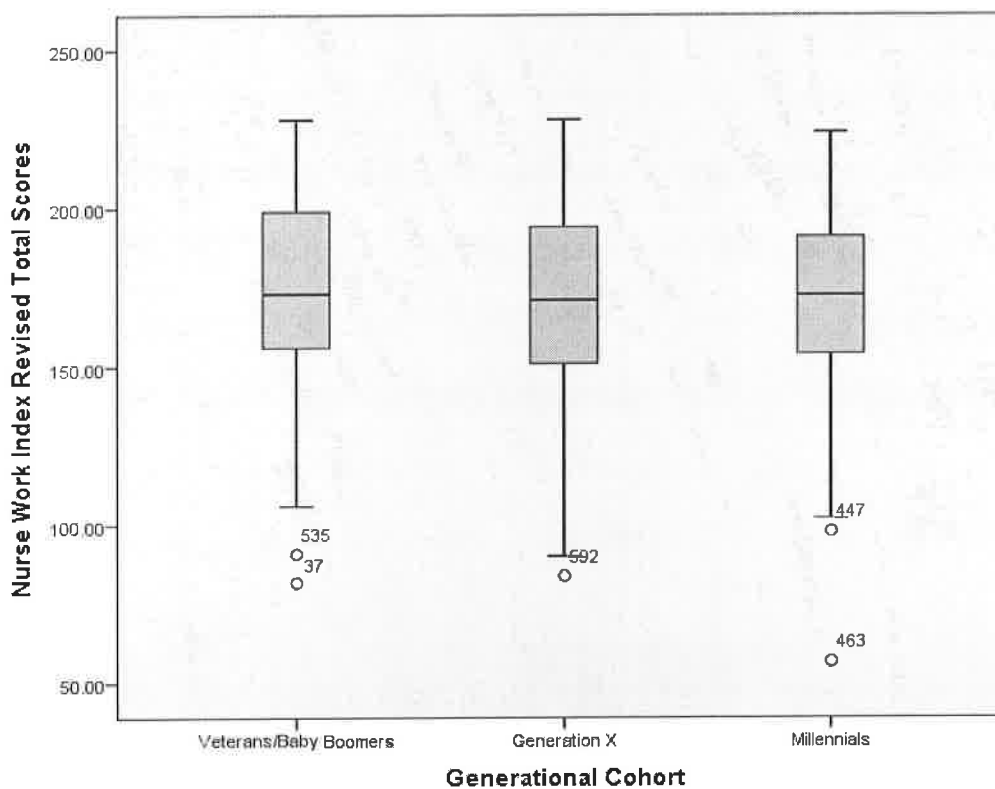
Figure 6. Nurse Work Index Revised Scores by Generational Cohort

Figure 6: Nurse Work Index-Revised mean scores by generational cohort does not demonstrate a significant difference among the three groups

Table 10:

Nurse Work Index Revised Scores: Means & Standard Deviations by Generation

	N	Percent	Mean	STD
Veterans/Baby Boomers	303	48.8%	175.33	28.92
Generation X	215	34.7%	172.59	28.37
Millennials	102	16.5%	170.64	27.85
Total	620	100.0%		

Once again the Levene's statistic was reviewed to evaluate the assumption of equality. The Levene's test of homogeneity was 0.42, greater than 0.05 so the assumption of equality was not violated. The ANOVA statistic was .289; greater than 0.05 as was the Tukey's HSD at .285. Therefore, we can conclude that there are no significant differences among the three generations of registered nurses in terms of job satisfaction with regards to positive work attributes measured by the Nursing Work Index-Revised. This is also demonstrated in Figure 6, showing the estimated marginal means of the generations. The estimated marginal means give the mean response for each factor, adjusted for any other variable (Pallant, 2010).

Figure 7. Estimated Marginal Means of Nurse Work Index Revised Total Scores

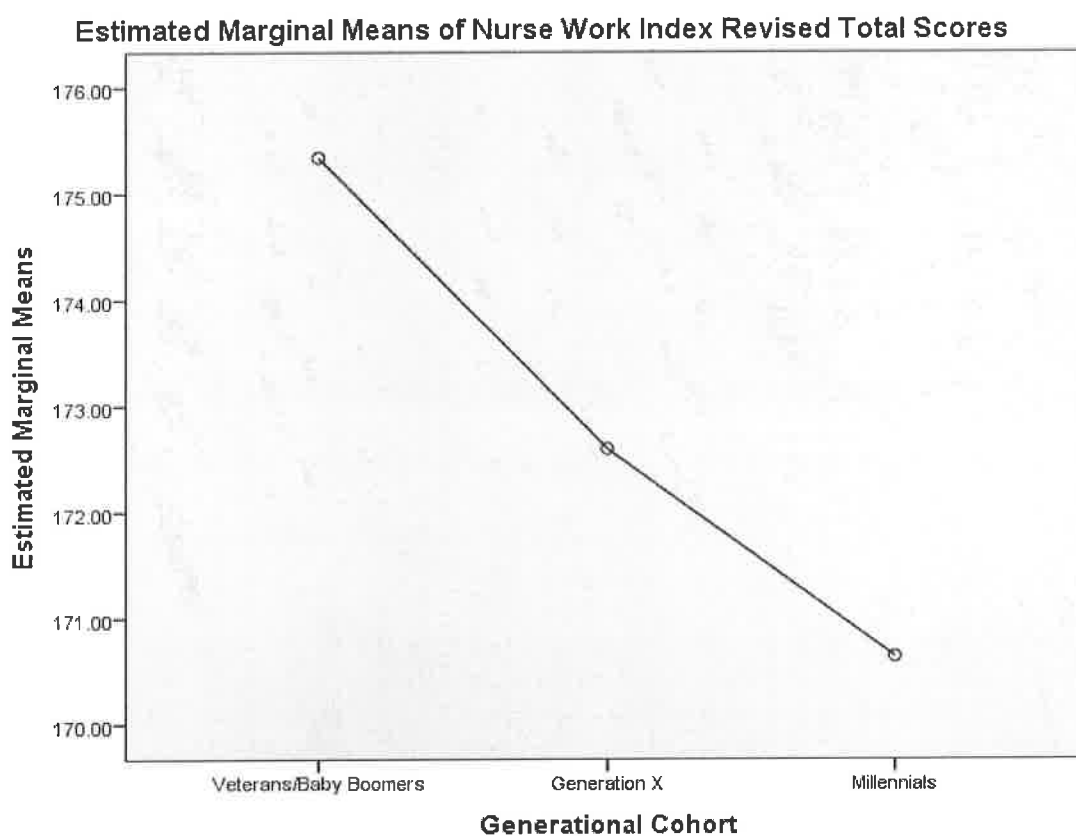


Figure 7: Estimated Marginal Means, Nurse Work Index-Revised, by generational cohort demonstrating no significant difference; all are above .05,

The different generations are reported to have different values and beliefs about work which sometimes lead to conflict within the workplace as well as job dissatisfaction (Apostolidis & Polifroni, 2006; Arsenault, 2004; Cennamo & Gardner, 2008; Hahn, 2009; Kupperschmidt, 2006; Laroie-Tremblay, O'Brien-Pallas, Gelinias, Desforjes, Marchionni, 2008; Weingarten, 2009; Zemke, et al, 2000). The lack of a significant difference among the generations in job satisfaction was not expected.

A possible explanation is offered by David Keepnews and colleagues who conducted a study in 2009 among 2,364 registered nurses from all four generations of newly licensed nurses. The Silent Generation (Veterans) consisted of 8.7%; Baby Boomers, 61.4%; Generation X 26.3% and Generation Y (Millennials), 2.3%. They indicated that newly licensed nurses consisted of all four generations; graduates were in their 20s or 60s. Notably, they suggest that because registered nurses include individuals of a wide range of ages, with a wide range of experience, in the nursing profession, age is not a reliable proxy for experience. They posit that experience is the more appropriate determinant of job satisfaction (Keepnews, Brewer, Kovner, Shin, 2009).

The third research question and hypothesis introduce the Magnet designation into the mix:

Research question 3: Is there a significant difference ($P = \leq 0.5$) in job satisfaction with regards to workplace environment and attributes as measured by the Nursing Work Index-Revised among the four generations of registered nurses working in Magnet designated and non-Magnet designated hospitals?

3a. Is there a significant difference ($p = \leq 0.05$) in job satisfaction with regards to workplace environment and attributes as measured by the Nurse Work Index-Revised among the Veteran generation of

registered nurses working in Magnet and non-Magnet designated hospitals?

3b. Is there a significant difference ($p = \leq 0.05$) in job satisfaction with regards to workplace environment and attributes as measured by the Nurse Work Index-Revised among the Baby Boomer generation of registered nurses working in Magnet and non-Magnet designated hospitals?

3c. Is there a significant difference ($p = \leq 0.05$) in job satisfaction with regards to workplace environment and attributes as measured by the Nurse Work Index-Revised among the Generation X generation of registered nurses working in Magnet and non-Magnet designated hospitals?

3d. Is there a significant difference ($p = \leq 0.05$) in job satisfaction with regards to workplace environment and attributes as measured by the Nurse Work Index-Revised among the Millennial generation of registered nurses working in Magnet and non-Magnet designated hospitals?

Hypothesis 3: There will be a significant difference in job satisfaction with regards to workplace environment and attributes as measured by the

Nursing Work Index-Revised among the four generations of registered nurses working in Magnet designated hospitals versus non-Magnet designated hospitals. Significance is determined at $p = \leq 0.05$.

H3a. There will be a significant difference in job satisfaction with regards to workplace environment and attributes as measured by the Nurse Work Index-Revised among the Veteran generation of registered nurses working in Magnet designated versus non-Magnet designated hospitals. Significance is determined at $p = \leq 0.05$.

H3b. There will be a significant difference in job satisfaction with regards to workplace environment and attributes as measured by the Nurse Work Index-Revised among the Baby Boomer generation of registered nurses working in Magnet designated versus non-Magnet designated hospitals. Significance is determined at $p = \leq 0.05$.

H3c. There will be a significant difference in job satisfaction with regards to workplace environment and attributes as measured by the Nurse Work Index-Revised among the Generation X generation of registered nurses working in Magnet designated versus non-Magnet designated hospitals. Significance is determined at $p = \leq 0.05$.

H3d. There is a significant difference in job satisfaction with regards to workplace environment and attributes as measured by the Nurse Work Index-Revised among the Millennial generation of registered nurses working in Magnet designated and non-Magnet designated hospitals. Significance is determined at $p = \leq 0.05$.

The answer to this research question is also “no.” A Two-Way ANOVA procedure was used once again to test this hypothesis. The Levene’s test of homogeneity was .44. There was no significance with generational cohort (.220) but the Magnet designation had a significance of .000 as did the interactive effect between the variables Generational Cohort and Magnet designation at .001. The effect size (partial eta squared) for both of these variables is very small at 1.4% and 1.6% respectively.

The estimated marginal means in Figure 7 suggests that the Veterans/Baby Boomers and Millennial generations are more satisfied working in Magnet designated hospitals. However, Generation X is more satisfied in the non-Magnet designated hospital which is a curious phenomenon. In review of the corresponding table of multiple comparisons, which demonstrates where any differences are, there was no significance (Portney & Watkins, 2010).

The Generation X group has been described as cynical and untrusting of work environments. This is the generation that saw their Baby Boomer parents who were very loyal to their employer laid off due to re-engineering; and, as a result, learned not to be loyal to organizations. They are also described as innovative, independent and assertive. Generation X values individualism and their time off. Generally, they see

work as a necessity in order to enjoy their time off. They are less tolerant of authority, viewing all team members as equal regardless of the position they hold. Individuals from this generation become frustrated if they think the organization is too bureaucratic or too political. Also, they want to work toward their individual goals while simultaneously working toward the organization's goals (Carver & Candella, 2008; Murray, 2013; Stowkowski, 2013; Wey-Smola & Sutton, 2002). Considering the work environment of hospitals which often tends to be hierarchical, bureaucratic and political, this may account for their dissatisfaction. It has been reported in the literature that most Magnet designated hospitals are large, urban teaching hospitals (Lake & Friese, 2006). The larger the hospital, the more bureaucratic, the more hierarchical and the more political the work environment tends to be (Lindquist, Alenius, Griffiths, Runesdotter, Tishelman, 2013).

Figure 8. Estimated Marginal Means of Nurse Work Index Revised Total Scores, Magnet versus non-Magnet Hospitals

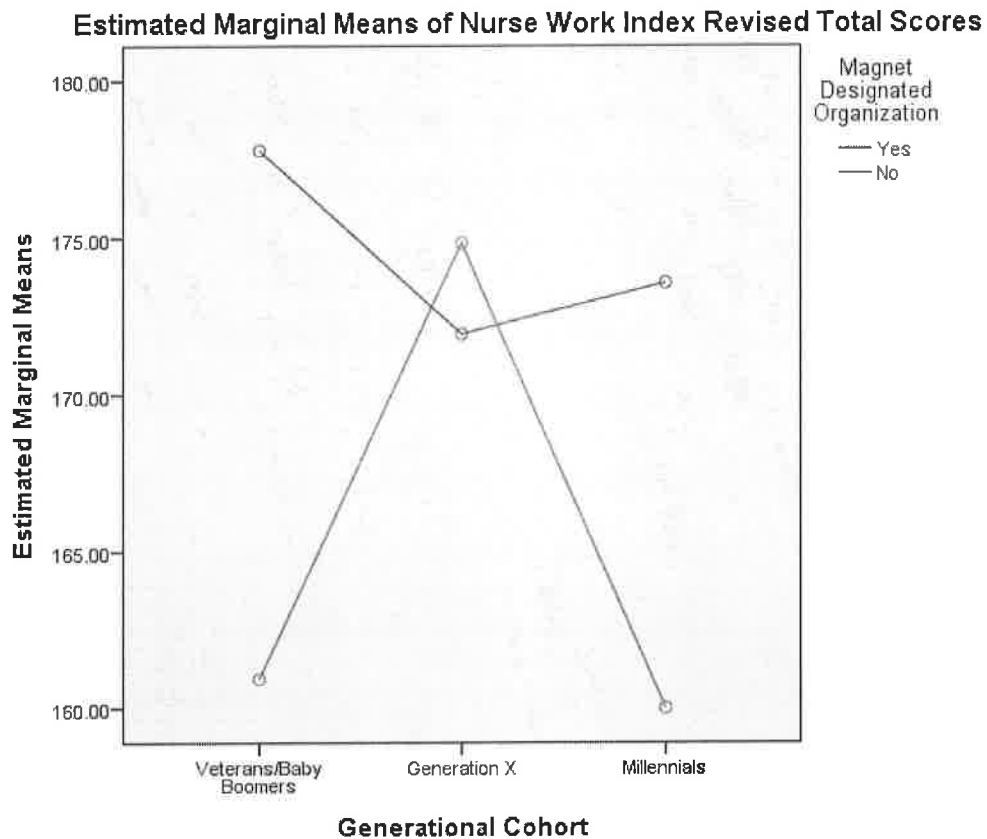


Figure 8: Estimated Marginal Means: Nursing Work Index – Revised scores by generational cohort in Magnet versus non-Magnet designated hospitals. Baby Boomers and Millennials are more satisfied in Magnet organizations.

Anticipated Turnover Scale

The Anticipated Turnover Scale (Appendix C) is a research instrument used to evaluate an nurse's likelihood of voluntarily leaving their position of employment (Barlow, Zangaro, 2010; Shader, Broome, Broome, West, Nash (2001). The instrument is composed of an equal number of positive and negative statements evaluated on a Likert scale of seven options. These options are: Strongly Agree, Moderately Agree,

Slightly Agree, Uncertain, Strongly Disagree, Moderately Agree and Slightly Disagree 0.70 to 0.90 (Shader, et. al, 2001). For this instrument there were 605 responses. Research questions 4 and 5 and the corresponding hypotheses pertain to the Anticipated Turnover Scale.

Similar statistical procedures were used to analyze the Anticipated Turnover Scale as with the Nursing Work Index-Revised. The first was the test for reliability of the data. The Cronbach's alpha was 0.85 which is consistent with the literature that reports a range of 0.70 to 0.90 (Shader, et. al, 2001).

The second procedure conducted was to test the data for normality. The statistical information pertaining to normality as well as the histogram are presented in Table 11 and Figure 9.

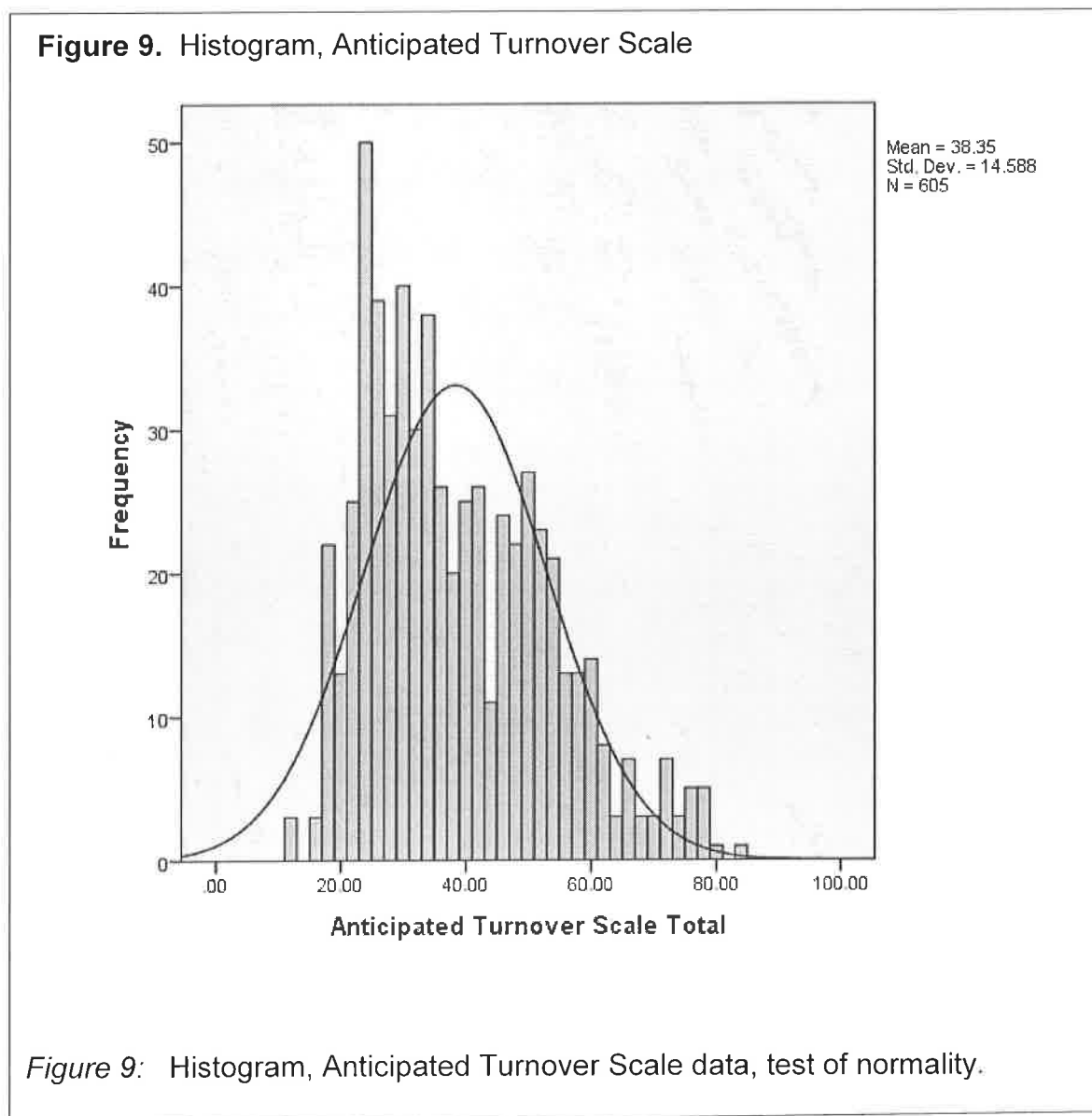
Table 11

Tests of Normality, Anticipated Turnover Scale

	Min	Max	SD	Skewness	Std. Error	Kurtosis	Std. Error
Anticipated Turnover Scale Total Scores	12.00	84.00	14.59	-.657	.099	-.204	.198

The Kolomogrov-Smirnov and the Shapiro-Wilk statistics were both .000, less than 0.05. These statistics indicate that the assumption of normality has been violated. However, as has been previously mentioned, Pallant (2010) indicates that this is very common in large samples. The investigator was unsuccessful finding further

information in terms of what determines a “large sample,” therefore parametric statistics were utilized with the Anticipated Turnover Scale as well.



Research question 4 looks at the Anticipated Turnover Scale scores in relationship to Magnet designated and non-Magnet designated hospitals. To test the

hypothesis, a One-Way ANOVA procedure (analysis of variance) was used. The research question and hypothesis are provided below for review:

Research question 4: Is there a significant difference ($p = \leq 0.05$) in anticipated turnover (retention) as measured by the Anticipated Turnover Scale (ATS) among all generations of nurses working Magnet designated and non-Magnet designated hospitals.

Hypothesis 4: There will be a significant difference in anticipated turnover (retention as measured by the Anticipated Turnover Scale among all registered nurses working Magnet and non-Magnet designated hospitals.

The answer to this question is “no”. The mean scores of Magnet designated and non-Magnet designated participants were very close at 38.21 and 38.96 respectively. The Levene’s statistic was .89, greater than 0.05 indicating the homogeneity of variance had not been violated. The significance of the One-Way ANOVA was 0.624.

Table 12

One-Way ANOVA, Anticipated Turnover Scale

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	51.103	1	51.03	.240	.624
Within Groups	128478.004	603	213.065		
Total	128529.107	604			

Figure 10. Anticipated Turnover Scale, Magnet versus non-Magnet Designated Hospitals

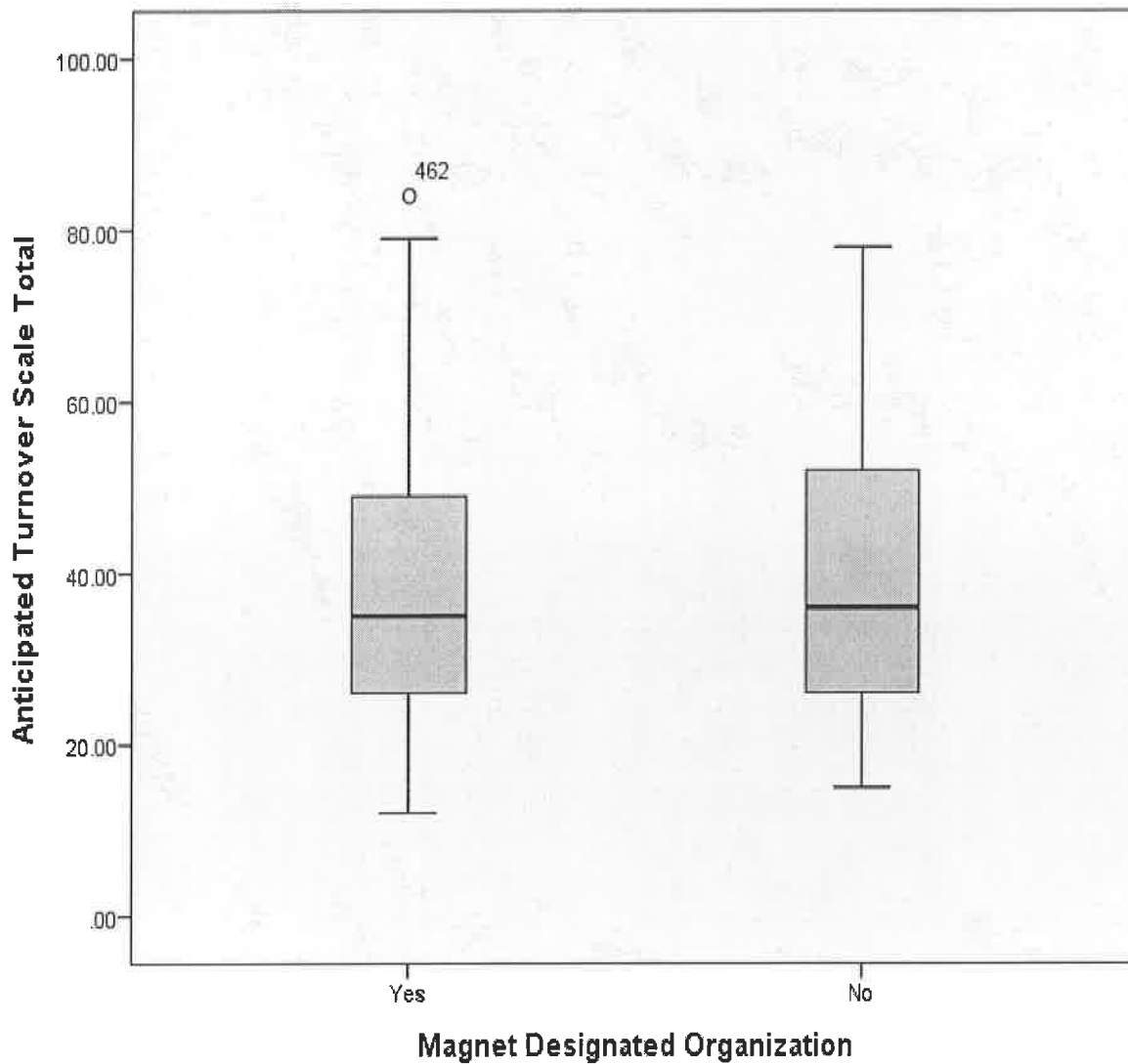


Figure 10. Box Plots demonstrating mean scores between Magnet designated and Non-Magnet designated hospitals. The mean scores are not significantly different.

Frequencies and distribution of responses showed some interesting results between the two hospital types. These results are shown in Table 11 and Figure 11.

Table 13

Frequencies: Anticipated Turnover Scale, "Strongly Agree"

Statement	Magnet	Non-Magnet	Statement	Magnet	Non-Magnet
I plan to stay in this position a while.	48.9%	44.3%	I've been in my position about if I want to.	21.7%	27.0
I am quite sure I will leave my position in the foreseeable future.	31.7%	33.9%	I am certain I will be staying here a while.	39.2%	40.0%
Deciding to stay or leave my position is not a critical issue for me at this point in time.	36.6%	33.0%	I don't have any specific idea how much longer I will stay.	12.7%	13.0%
I know whether or not I will be leaving this agency within a short time.	24.0%	21.7%	I plan to hang onto this job a while.	39.6%	40.0%
If I got another job offer tomorrow I would give it serious consideration	19.6%	23.5%	There are big doubts in my mind as to whether or not I will stay in this agency.	40.8%	39.1%
I have no intentions of leaving my present position.	38.0%	40.9%	I plan to leave this position shortly.	43.7%	47.6%

Table 12 represents the percentages of “Strongly Agree” responses among the Magnet and non-Magnet designated participants. In general, among the Magnet group the total collective responses for “Strongly Agree”, “Moderately Agree” or “Slightly Agree” (positive responses) were 58.8%. “Uncertain” was 16.3% and the “Disagree” participants had similar results with total positive responses at 54.4%, “Uncertain at 17.5%, and the “Disagree responses were 17.9%. At least from the percentages of these response types, there are not remarkably different.

A graphic presentation of this information is shown in Figure 11 which reinforces these small differences among the two groups. There are only small differences between the Magnet and non-Magnet group, the largest being between the “Uncertain” and “Strongly Disagree.”

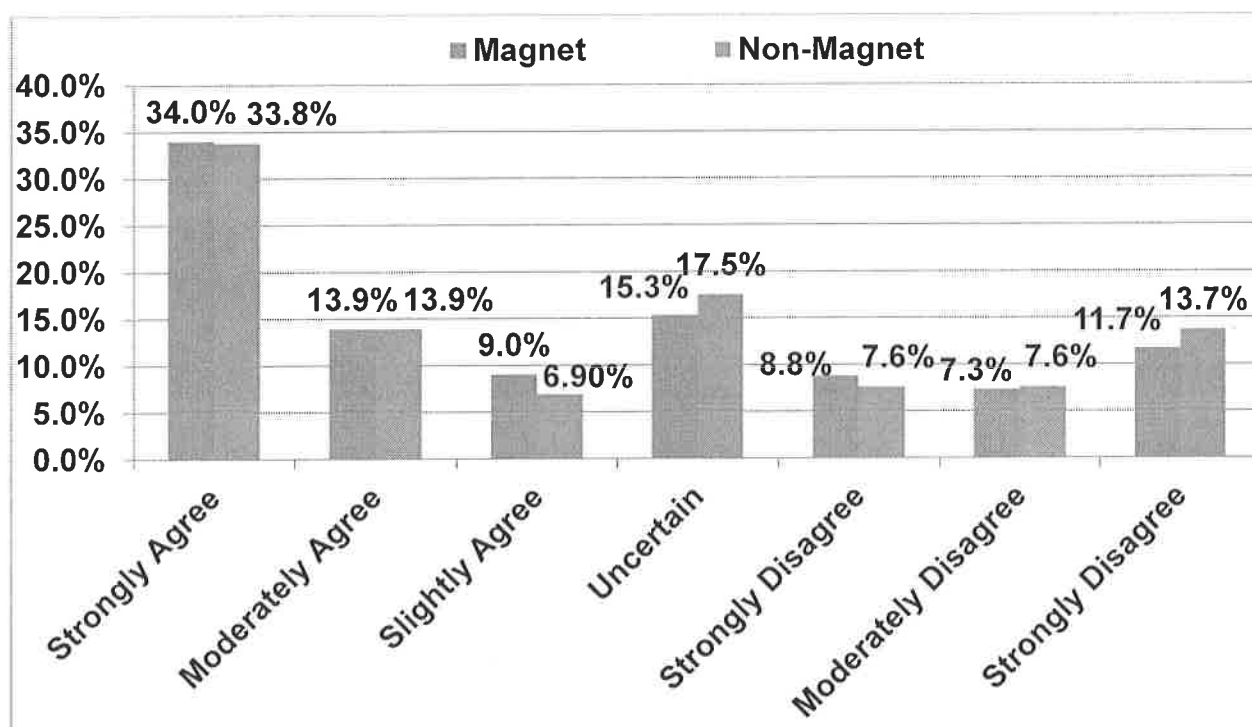
Figure 11. Distribution of Responses to the Anticipated Turnover Scale

Figure 11: Distribution of Responses to the Anticipated Turnover Scale: Magnet versus non-Magnet designated hospitals. Responses are very similar.

It has been determined that there is no significant difference in anticipated turnover among nurses working in Magnet designated and non-Magnet designated hospitals. If the variable of generational cohort is added to the equation, would the results demonstrate any significant differences? This is essence of research question number 5 and hypothesis number 5. This research question and hypothesis are noted below for review.

Research Question 5: Is there a significant difference ($p \leq 0.5$) in anticipated turnover (retention) as measured by the Anticipated Turnover Scale (ATS) among the four generations of nurses.

5a Is there a significant difference ($p \leq 0.5$) in anticipated turnover (retention) as measured by the Anticipated Turnover Scale (ATS) among Veterans generation registered nurses?

5b. Is there a significant difference ($p \leq 0.5$) in anticipated turnover (retention) as measured by the Anticipated Turnover Scale (ATS) among Baby Boomer generation registered nurses?

5c. Is there a significant difference ($p \leq 0.5$) in anticipated turnover (retention) as measured by the Anticipated Turnover Scale (ATS) among Generation X generation registered nurses?

5d. Is there a significant difference ($p \leq 0.5$) in anticipated turnover (retention) as measured by the Anticipated Turnover Scale (ATS) among Millennial generation registered nurses?

Hypothesis 5: There will be a significant difference in anticipated turnover (retention) as measured by the Anticipated Turnover Scale among the four generations of registered nurses. Significance is determined at $p = \leq 0.05$.

H5a There will be a significant difference in anticipated turnover (retention) as measured by the Anticipated Turnover Scale among Veterans generations of registered nurses. Significance is determined at $p = \leq 0.05$.

H5b There will be a significant difference in anticipated turnover (retention) as measured by the Anticipated Turnover Scale among the Baby Boomer generation of registered nurses. Significance is determined at $p = \leq 0.05$.

H5c There will be a significant difference in anticipated turnover (retention) as measured by the Anticipated Turnover Scale among the Generation X generations of registered nurses. Significance is determined at $p = \leq 0.05$.

H5d There will be a significant difference in anticipated turnover (retention) as measured by the Anticipated Turnover Scale among the Millennial generations of registered nurses. Significance is determined at $p = \leq 0.05$.

The answer to this research question is “yes.” There is a significant difference within the generational cohorts. A Two-Way ANOVA procedure was used to determine this difference. This difference is somewhat evident in the means and standard deviations of respondents for the Anticipated Turnover Scale displayed in Table 14 and

Table 14

Means, Standard Deviations, Anticipated Turnover Scale

Generational Cohort	N	Percentage	Mean Score	STD
Veterans/Baby Boomers	303	48.8%	36.04	14.16
Generation X	215	33.5%	39.72	14.13
Millennials	102	16.2%	41.29	15.62

Figure 12. Anticipated Turnover Scale Mean Scores by Generational Cohort

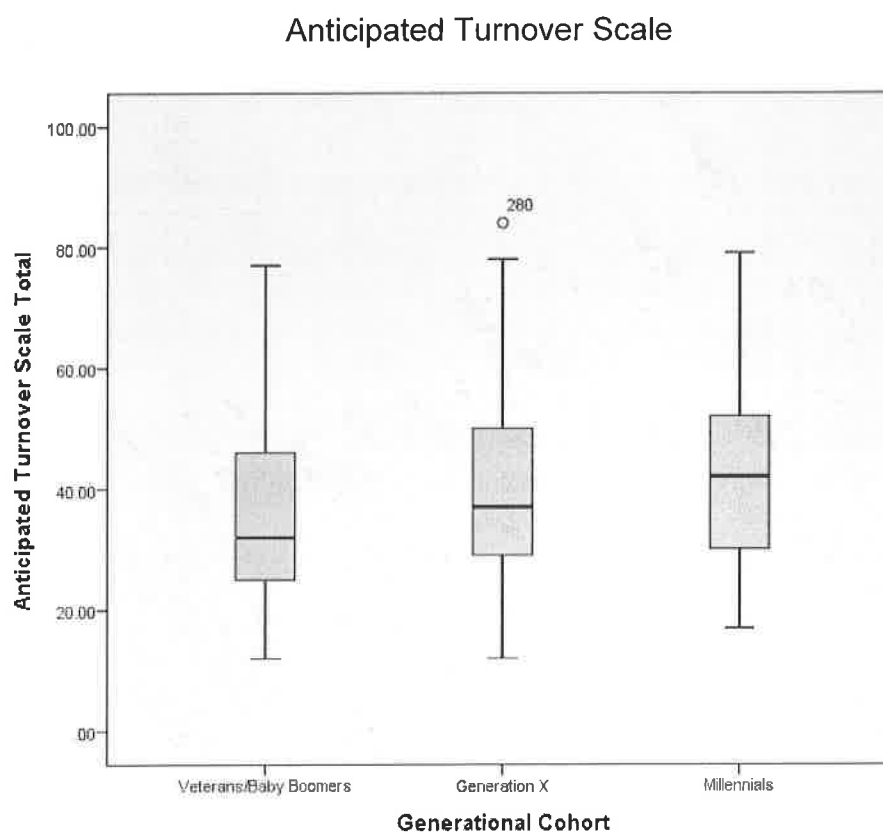


Figure 12: Anticipated Turnover Scale, Box Plots. The mean score is highest among the Millennial generation indicating they are most likely to leave their jobs.

The Two-Way ANOVA procedure result was significant at .000 with an F ratio of 8.50. Once a significant result is obtained, the next step is to review the Multiple Comparisons Table. The results of the post hoc tests are provided for the researcher in the Multiple Comparisons Table. The Tukey's HSD test is indicated as it is the most common post hoc test used (Pallant, 2010). In the SPSS software program, significant results ($p = \leq 0.05$) is also noted with an asterisk in the Mean Difference column. The Multiple Comparisons Table is provided in Table 15 below.

Table 15

Two-Way ANOVA: Anticipated Turnover Scale and the Generational Cohorts (Multiple Comparisons Table)

(I) Generational Cohort	(J) Generational Cohort	Mean Difference	Std. Error	Sig.
Veterans/Baby Boomers	Generation X	-3.68*	1.30	.001
	Millennials	-6.25*	1.66	.000
Generation X	Veterans/Baby Boomers	3.68*	1.30	.001
	Millennials	-.257	1.75	.310
Millennials	Veterans/Baby Boomers	6.25*	1.68	.000
	Generation X	2.57	1.75	.310

The Veterans/Baby Boomers differ significantly from the Generation X and Millennial cohorts. The greatest difference is between the Veterans/Baby Boomers and the Millennials.

The sixth research question takes into consideration two independent variables. specifically, the generational cohorts and the Magnet designation.

Research Question 6: Is there a significant difference in anticipated turnover (retention) as measured by the Anticipated Turnover Scale (ATS) among the four generations of registered nurses working in Magnet designated and non-Magnet designated hospitals?

6a. Is there a significant difference in anticipated turnover (retention) as measured by the Anticipated Turnover Scale (ATS) among the Veteran generation of registered nurses working in Magnet designated and non-Magnet designated hospitals?

6b. Is there a significant difference in anticipated turnover (retention) as measured by the Anticipated Turnover Scale (ATS) among the Baby Boomer generation of registered nurses working in Magnet designated and non-Magnet designated hospitals?

6c. Is there a significant difference in anticipated turnover (retention) as measured by the Anticipated Turnover Scale (ATS) among the Generation X

generation of registered nurses working in Magnet designated and non-Magnet designated hospitals?

6d. Is there a significant difference in anticipated turnover (retention) as measured by the Anticipated Turnover Scale (ATS) among the Millennial generation of registered nurses working in Magnet designated and non-Magnet designated hospitals?

The corresponding hypothesis:

Hypothesis 6: There will be a significant difference in anticipated turnover (retention) as measured by the Anticipated Turnover Scale (ATS) among the four generations of registered nurses working in Magnet designated and non-Magnet designated hospitals. Significance is determined at $p = \leq 0.05$.

H6a There will be a significant difference in anticipated turnover (retention) as measured by the Anticipated Turnover Scale (ATS) among Veterans generation of registered nurses working in Magnet designated and non-Magnet designated hospitals. Significance is determined at $p = \leq 0.05$.

H6b There will be a significant difference in anticipated turnover (retention) as measured by the Anticipated Turnover Scale (ATS) among Baby Boomer generation of registered nurses working in Magnet designated and non-Magnet designated hospitals. Significance is determined at $p = \leq 0.05$.

H6c There will be a significant difference between anticipated turnover (retention) as measured by the Anticipated Turnover Scale (ATS) among the Generation X generation of registered nurses working in Magnet designated and non-Magnet designated hospitals. Significance is determined at $p = \leq 0.05$.

H6d. There will be a significant difference in anticipated turnover (retention) as measured by the Anticipated Turnover Scale (ATS) among the Millennial generation of registered nurses working in Magnet designated and non-Magnet designated hospitals. Significance is determined at $p = \leq 0.05$.

The answer to this question is “partially.” The scoring requirements for the Anticipated Turnover Scale are rather straight forward. There is an equal number of negative and positive statements. The negative statements require that the scoring reversed so that if “Strongly Agree” had a score of 7, this score now became a 1 and so on. The scores are then totaled and divided by the number of items in the scale which is twelve (Appendix C). The Veterans and Baby Boomers had the highest score (771.41) meaning that this group was most likely to leave their positions. Generation X followed at 564.41 and then the Millennials at 278.58.

In the non-Magnet designated organization, the Generation X cohort scored the highest at 148.83; Veterans and Baby Boomers followed at 139.33 and lastly Millennials at 82.25. Table 15 and 16 show the highest scoring items among each cohort in both the Magnet and non-Magnet designated hospitals.

Table 16

Anticipated Turnover Scale: Highest Scoring Items, Magnet Designated Hospitals

Magnet Designated (N=505)		
Generational Cohort	Survey Statement	Score
Veterans/Baby Boomers	I don't have any specific idea how much longer I will stay in this agency.	1,115
Generation X	If I got another job tomorrow, I would give it serious consideration.	757
Millennials	If I got another job tomorrow, I would give it serious consideration.	380

Table 17

Anticipated Turnover Scale: Highest Scoring Items, non-Magnet Designated Hospitals

Non-Magnet Designated (N=115)		
Generational Cohort	Survey Statement	Score
Veterans/Baby Boomers	I know whether or not I will be leaving this agency within a short time.	203
Generation X	I don't have any specific ideal how much longer I will stay.	204
Millennials	If I got another job tomorrow, I would give it serious consideration.	100

To test hypothesis number 6, the Multivariate Analysis or MANOVA statistical procedure was used. This procedure is an extension of analysis of variance for use when there is more than one dependent variable (Portney & Watkins, 2000). In this case, the dependent variables were the Nursing Work Index-Revised and the Anticipated Turnover Scale. The advantage of using a MANVA is that it controls or adjusts for an increased risk of a Type 1 error. It is a complex procedure which requires a number of additional assumptions (Pallant, 2010).

Checking the multivariate normality is the first step in the MANOVA procedure; the Mahalanobis distance. As cited by J. Pallant (2010), Tabachnick & Fidell define the Mahalanobis distance as the distance of a particular case from the centroid of the remaining cases. The centroid is the point created by the means of all the variables. This analysis will pick up any unusual pattern of scores across the dependent variables (Pallant, 2010). Should the maximum values for Mahalanobis distance be less than the critical value, one can assume that there were no substantial multivariate outliers and continue with the statistical procedure (Pallant, 2010). The Mahalanobis distance for the Nursing Work Index-Revised was 6.08 and 7.07 for the Anticipated Turnover Scale. Both these results are less than the critical value of 11.07.

The Box's Test of Equality of Covariance Matrices tells whether the data violates the assumption of homogeneity of variance-covariance matrices. The significance must be larger than .001 to assume that this homogeneity of variance-covariance matrices is not violated (Pallant, 2010). The significance of the Box's Test for this data was .242.

The Levene's Test of Equality of Error Variance must be less than 0.05 in order to assume that the assumption of equality of variance is not violated (Pallant, 2010).

For this data, there were no values less than 0.05. Therefore, the assumption of equality of variance was not violated.

The Wilk's Lambda (Table 16) is a multivariate test and indicates whether there are statistically significant differences among the groups on a linear combination of dependent variables. Although there are a number of multivariate tests, the Wilk's Lambda is the most commonly reported (Pallant, 2010). The effect size or Partial Eta Squared gives the researcher the magnitude of the difference of a relationship between two variables. For example, if the Partial Eta Squared was .015, the magnitude would be 1.5%. For this data presented in the Multivariate Tests, the effect sizes are very small.

Table 18

Multivariate Analysis

Effect		Sig.	Partial Eta Squared
Generational Cohort	Wilk's Lambda	.014	.014
Magnet Designation	Wilk's Lambda	.009	.011
Generational Cohort* Magnet Organization	Wilk's Lambda	.008	.010

Once a significant multivariate analysis was to determine what variable created the interactive effect. The Between Subjects Effect was reviewed to identify that variable. This information is displayed in Table 19.

Table 19

Between - Subjects Effects

Independent Variable	Dependent Variable	F Ratio	Sig.	Partial Eta Squared
Generational Cohort	Nursing Work Index-	1.469	.231	.005
	Revised	4.775	.009	.016
	Anticipated Turnover Scale			
Magnet Designation	Nursing Work Index-	7.714	.006	.013
	Revised	.281	.596	.000
	Anticipated Turnover Scale			
<i>Generational Cohort *</i>	Nursing Work Index-	5.683	.004	.019
<i>Magnet Designation</i>	Revised	2.028	.133	.007
	Anticipated Turnover Scale			

There is a significant interactive effect between generational cohort and the results of the Anticipated Turnover Scale. There is also a significant effect between Magnet designation and the Nursing Work Index-Revised. Once again however, these effect sizes are very small.

The next step in the statistical analysis was to review the Multiple Comparisons table (Table 20) to determine which variables were responsible for the interactive effect.

Table 20

Multiple Comparisons

Dependent Variables	(I) Generational Cohort	(J) Generational Cohort	Mean Diff.	Std. Error	Sig.
Nursing Work Index-Revised	Veterans/Baby Boomers	Generation X	3.30	2.55	.400
		Millennials	4.84	3.25	.305
	Generation X	Veterans/Baby Boomers	-3.30	2.55	.400
		Millennials	1.54	3.41	.894
	Millennials	Veterans/Baby Boomers	-4.84	3.25	.305
		Generation X	-1.54	3.44	.894
Anticipated Turnover Scale	Veterans/Baby Boomers	Generation X	-3.68*	1.30	.000
		Millennials	-6.25*	1.74	.000
	Generation X	Veterans/Baby Boomers	3.68*	1.30	.001
		Millennials	-2.57	1.74	.305
	Millennials	Veterans/Baby Boomers	6.25*	1.66	.000
		Generation X	2.58	1.74	.305

The interactive effect is only between the generations and the Anticipated Turnover Scale. There is no interactive effect between the generational cohorts and the Nursing Work Index-Revised. The Tukey's HSD was 0.05.

Further analysis of the Estimated Marginal Means (Figure 13) provides additional information. In terms of the Anticipated Turnover Scale, the Millennials are more likely to leave the organization in both the Magnet and non-Magnet designated hospitals.

Generation X is behind them. These results are surprising as well as concerning. Surprising because the Anticipated Turnover Scale was expected to have higher scores in the non-Magnet designated hospitals due to the positive work environments, but in Generation X, it is higher. The data is concerning because the Millennial generation is regarded as the future of nursing (Riegel, 2013). Their scores are higher in both Magnet and non-Magnet hospitals.

Figure 13. Estimated Marginal Means of Anticipated Turnover Scale

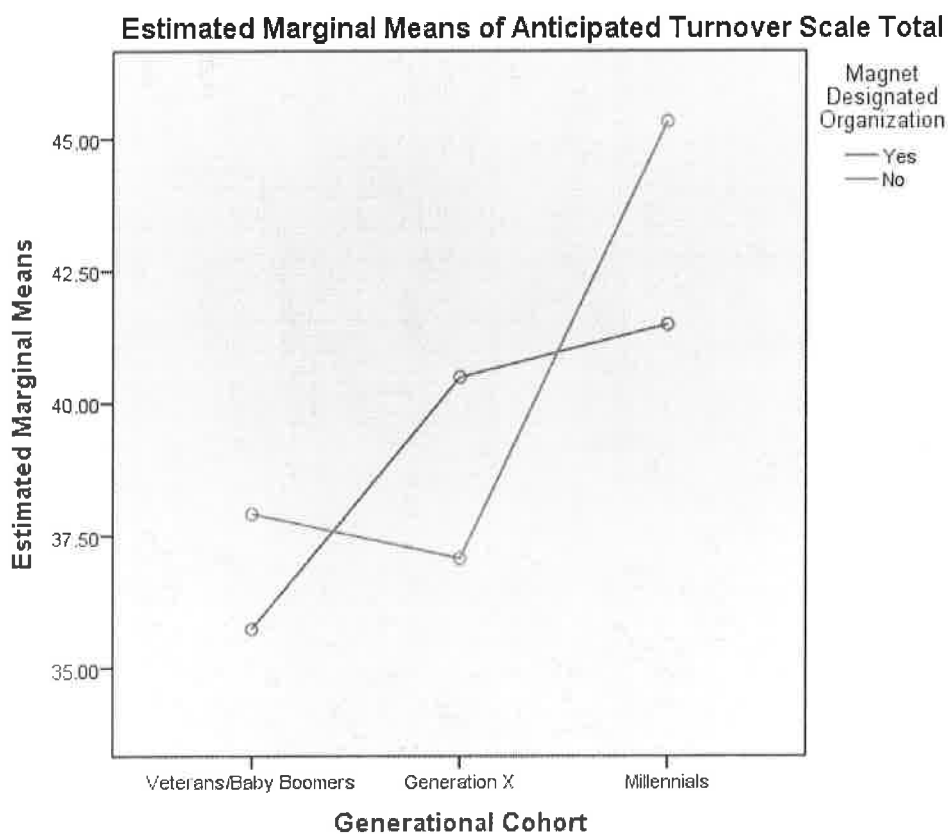


Figure 13: Estimated Marginal Means of Anticipated Turnover Scale: total scores by generational cohort in Magnet and non-Magnet designated hospitals. The Millennials are more likely to leave their jobs in both Magnet and non-Magnet designated hospitals.

Cheryl Bowles and Lori Candela (2005) from the University of Nevada conducted a survey of 3,077 nurses registered and their first job experience in the state of Nevada. Eligibility to participate in the study required nurses to have graduated within the last five years. There was a 12% response rate for a total number of participants of 352. These researchers found that there were several themes that emerged as to why nurses left their jobs within one to two years:

- The majority of participants felt there was no room for advancement in their current positions. Although they felt that advanced education was supported, less than half reported funding support.
- Working in a non-profit hospital or profit hospital made a difference with more positive perceptions of work environment from the group working in the non-profit organizations.
- Size of the unit on which they worked made a difference as well. Those that worked on a unit with less than 20 patients had a more positive experience in their work.
- Those who had been working for two years or less had a more positive experience than those working three to five years.
- Reports of stress associated with the acuity of patients and unacceptable nurse to patient ratios resulting in a perception of unsafe patient care.
- Management issues, being given too much responsibility and lack of support and guidance.

(Bowles & Candela, 2005)

An interesting recommendation came from this study with regard to for profit hospitals. "This finding would support for-profit hospitals examining nurse staffing practices and perhaps considering the development of Magnet hospital philosophies as a way of improving the work environment for nurses" (Bowles & Candela, p. 135).

The seventh and last research question and hypothesis addresses the *actual* nursing turnover rates with the hospitals that participated in the study:

Research question 7: Is there a significant difference ($p = \leq 0.05$) in *actual* nursing turnover rates among all four generations of nurses working in Magnet designated and non-Magnet designated hospitals?

7a. Is there a significant difference ($p = \leq 0.05$) in *actual* nursing turnover rates among the Veteran generations nurses working in Magnet designated and non-Magnet designated hospitals?

7b. Is there a significant difference ($p = \leq 0.05$) in *actual* nursing turnover rates among the Baby Boomer generations of nurses working in Magnet designated and non-Magnet designated hospitals?

7c. Is there a significant difference ($p = \leq 0.05$) in *actual* nursing turnover rates among the Generation X generation of nurses working in Magnet designated and non-Magnet designated hospitals?

7d. Is there a significant difference ($p \leq 0.05$) in *actual* nursing turnover rates among the Millennial generation of nurses working in Magnet designated and non-Magnet designated hospitals?

The corresponding hypothesis:

Hypothesis 7: There will be a significant difference in *actual* nurse turnover rates among the four generations of nurses working in Magnet designated and non-Magnet designated hospitals. Significance is determined at $p \leq 0.05$.

H7a. There will be a significant difference in *actual* nurse turnover rates among the Veteran generation nurses in Magnet designated and non-Magnet designated hospitals. Significance is determined at $p \leq 0.05$.

H7b. There will be a significant difference in *actual* nurse turnover rates among the Baby Boomer generation nurses in Magnet designated and non-Magnet designated hospitals. Significance is determined at $p \leq 0.05$.

H7c. There will be a significant difference in *actual* nurse turnover rates among the Generation X nurses in Magnet designated and non-Magnet designated hospitals. Significance is determined at $p \leq 0.05$.

H7d. There will be a significant difference in *actual* nurse turnover rates among the Millennial generation nurses in Magnet designated and non-Magnet designated hospitals. Significance is determined at $p \leq 0.05$

Unfortunately, this question could not be answered. The intent was to obtain actual turnover rates by generation from each hospital in the study. The researcher was advised that this information was considered “proprietary” or that the computer systems within the Human Resources Department were not sophisticated enough to provide that type of information.

Summary of Findings

There were seven research questions and seven hypotheses regarding the generational cohorts of nurses and work environments leading to job satisfaction and anticipated turnover. Job satisfaction as measured by the Nursing Work Index-Revised demonstrated differences among nurses working in Magnet designated and non-Magnet designated hospitals. Effect sizes of these differences were small. When the generational cohort variable was added to the question, there were no differences in job satisfaction with regard to positive work attributes as measured by the Nursing Work Index-Revised. When the Magnet designation was introduced as another variable, once again, there were no significant differences.

In terms of the Anticipated Turnover Scale which measured the probability of voluntary resignations of nurses, there was no significant difference in nurses working in Magnet and non-magnet designated hospitals. However, there was a significant

difference in anticipated turnover among the generational cohorts of nurses. This was also the case when interactive effects among the variables were analyzed using a Multivariate Analysis; the interactive effect was only between the generational cohorts and the Anticipated Turnover Scale.

The last research question and corresponding hypothesis addressed the actual turnover among the generations of nurses in the hospitals participating in the studies. Unfortunately, this information was not available to the researcher and therefore this question could not be answered.

Chapter V

DISCUSSION

Overview of Findings

The impending shortage of registered nurses will undoubtedly create many challenging issues for acute care hospitals, long term care facilities and other health care venues as have past shortages. This upcoming shortage is predicted to be very different than other shortages because the contributing factors are different than shortages of the past (Bednash, 2000; Bowles & Candela, 2005; Buerhaus, 2008; Buerhaus, Staiger, Auerbach, 2000; Coffman, 2008; Goldsmith, 2011; Jasper, 2005; Lavoie-Tremblay, O'Brien-Pallas, Gelinas, Desforges, Marchionni, 2008; Staiger, Auerbach, Buerhaus, 2012).

As of 2013, there are 2,824,641 registered nurses in the United States. Of these nurses 46.8% (1,321,932) are between the ages of 46 to 65 years of age (Health Resources and Services Administration, 2013). Contributing factors to this predicted shortage are the retirement of a number of Baby Boomer nurses in the next decade coupled with an increasing societal demand for nurses. Baby Boomer retirees include Nursing Educators, thus creating a shortage in academia to address the replacement of these nurses (Buerhaus, et al, 2009; Barlow and Zangaro, 2010; (Gordon, 2005; Hirschhorn, West, Hill, Cleary, Hewlett, 2010).

Adding to the complexity of this issue is the presence of four different generations in the workplace. Each of these generational cohorts has different beliefs and values about work shaped by key events occurring in their growth and

development. These generations sometimes clash in the workplace due to these beliefs and values (Coombs & Barriball, 2006; Zemke, Raines, Filiczkpak, 2000).

. The experienced, well-informed manager will make the effort to understand these generational differences and capitalize on them in order to create an environment conducive to job satisfaction and retention

Shortages of registered nurses in hospitals create quality of care issues, patient safety issues and financial issues which will culminate to have devastating effects on hospital reputations and financial stability (Aiken, et al., 2002; Alvarez & Fitzpatrick, 2007; Bae, Mark, Fried, 2010; Gordon, 2005). The most pressing issue however is that the patient is at the center of this turmoil, and the individual at greatest risk.

The most logical approach to avoid such an overwhelming shortage of nurses is to create positive working environments in hospitals that lead to the retention of registered nurses. One mechanism to create such an environment is to adopt the Magnet philosophies which have been demonstrated to be linked to positive work environments, job satisfaction and consequently retention (American Nurses Credentialing Center, 2005; Aiken, et al., 2005; Lake & Friese, 2006; McClure, Poulin, Sovie, Wandelt, 1983).

The purpose of this research was two-fold. First, to determine if there were differences in nurses' perceptions of job satisfaction with regards to workplace environment and attributes among the different generations in Magnet designated and non-Magnet designated hospitals. Second, to determine if there were differences in nurses' perception of anticipated turnover (retention) among the generations of nurses working in Magnet and non-Magnet designated hospitals. The research indicated that

there was a significant difference in nurses' perceptions of job satisfaction among Magnet designated and non-Magnet designated hospitals, although a small effect size. Perceptions of job satisfaction among the generational cohorts demonstrated no significant differences. However, research has demonstrated that age is not a good distinction by which to measure job satisfaction. Experience of the registered nurse is the better demarcation when it comes to perceptions of job satisfaction (Keepnews, et al.; 2009)

The Anticipated Turnover Scale was used to measure potential turnover of registered nurses. Data demonstrated no significant differences in potential turnover among nurses working in Magnet and non-Magnet designated hospitals. Surprising to some extent, however given that this research was conducted in New Jersey hospitals, not surprising. New Jersey is the "flagship" state for Magnet designation, Hackensack University Medical Center in Hackensack New Jersey became the second hospital in the nation to achieve this recognition in 1995. The pilot hospital, University of Washington Medical Center in Seattle, Washington was the first achieving the designation in 1994. Between 1996 and 2000, 6 additional hospitals achieved the designation; 11 additional hospitals between 2001 and 2005, and finally in 2014, there are 24 Magnet designated hospitals. Interestingly, in the state of Washington, there are only three Magnet designated hospitals (American Nurses Credentialing Center, 2014). Nurse executives in New Jersey are well versed in the attributes of the Magnet philosophies and even though their hospitals have not received the designation, many

nurse executives have adopted and implemented the philosophies; creating the desired work environment without the associated expense.

There was a significant difference in the anticipated turnover among the four generations in the workplace. The Millennials scored higher in anticipated turnover in both the Magnet and non-Magnet designated organization. In fact, research has shown they leave their jobs within one to two years (Bowles & Candela, 2005). This finding underscores the need for better understanding of this generation's needs and heightened efforts to retain this generational cohort termed "the future of nursing" (Bowles & Candela, 2005; Sherman, 2006; Stanley, 2010)

Kanter's Theory of Organizational Empowerment has noted that people engage in different behaviors depending on if certain structural supports (power and opportunity) exist. Furthermore, power is defined as the ability to mobilize resources, information and support for one's position to allow them to successfully complete their job. These lines of power come from informal and formal systems within the organization. Flexibility and discretion in how work is accomplished is central to the overall organization. These concepts embrace the values and beliefs of the Generation X and the Millennial generational cohorts. Equal attention must be paid to retention of the Baby Boomer generation as they will be the individuals training the new nurses of the Generation X and the Millennial groups. Failure to do so may result in a majority workforce of inexperienced nurses; equally detrimental to quality and safety of patient care (Spence-Laschinger & Finegan, 2005).

With regard to the generational cohorts, life experiences culminate to develop individual's attitudes, values, opinions and beliefs which spill over into the work

environment. In this study, the Veterans/Baby Boomers in the non-Magnet designated group had a higher score in their intent to leave their place of employment. The Magnet standards address quality, and emphasize patient outcomes and professionalism. This group is detail oriented, hard working and believe in hierarchies. They are team players and they want to please (Apostolidis & Polifroni, 2006; Arsenault, 2004; Cennamo & Gardner, 2008; Stanley, 2010; Zemke, et. al, 2000).

Generation Xs are independent, un-intimidated by authority and are not particularly loyal to the organizations in which they work. They are also intolerant of organizational politics (Cennamo & Gardner, 2008). Hospitals are notorious for political environments and multiple hierarchal structures; there are physician hierarchies, nursing hierarchies and administrative hierarchies all of which have the potential to collide.

The Millennials are the group most likely to leave irrespective of the Magnet designation. They look for a balance between life and work, and they have a need for supervision and structure. This group is reported to be very disillusioned with the profession of nursing, particularly within the hospital environment. Their perception is that the work environment is unsafe: they are given too much responsibility; there is lack of support and guidance; there are management issues; and unacceptable nurse to patient ratios (Bowles & Candela, 2009).

Limitations

The study has several limitations. A convenience sample was used and therefore the findings are not generalizable. The major limitation to this method is the potential bias

of self-selection. It is impossible to know what attributes are present in those who participate compared to those who do not (Portney & Watkins, 2000).

The second limitation was that data is self-reported in that the existence of the attributes in the hospital was the opinion of the participant. If the participant were not exposed to some of the attributes as described in the Magnet philosophies which are reported to create a positive work environment, the assumption may be that the attribute does not exist within the institution. For example, the Magnet standards support the concept of self-governance and staff nurses participating in decision making. If the participant is not a member of one of the committees; they may believe it does not exist.

The study was only conducted in New Jersey hospitals. As previously mentioned, New Jersey was the “flagship” state for Magnet designation of hospitals. Hackensack University Medical Center in Hackensack, New Jersey was the second hospital in the country to achieve Magnet status in 1995; the first being the pilot hospital in the state of Washington (American Nurses Credentialing Center, 2014). Once the hospital achieved this status, a very large, pervasive marketing campaign was launched which segmented this hospital from others in New Jersey as having the “best nurses in the country”. This marketing campaign captured the interest of multiple hospital executives in New Jersey and within a couple of years there were multiple hospitals who had achieved that status. Those who chose not to pursue the designation adopted and implemented the Magnet philosophies as a mechanism to compete for nursing resources. In summary, this state is well indoctrinated in terms of the Magnet philosophies and attributes, whether or not there is a specific designation.

In addition, there were a smaller number of participants from the non-Magnet designated hospitals than from the Magnet hospitals. This imbalance creates to some extent a more favorable lean towards the Magnet designation. However, in compiling the statistics, the researcher attempted to compensate for this issue.

Lastly, the length of the Nursing Work Index-Revised is another limitation. This version of this instrument contains 57 statements (Appendix B). Other versions are shorter yet capture the elements of a positive work environment (Lake & Friese, 2002). Combined with the Anticipated Turnover Scale and the Demographic Questionnaire (Appendices C, F), responding to this survey could have been too time consuming to be completed in the workplace. There were a number of surveys that had to be eliminated because they were incomplete. Nurses in the work setting may have begun to respond to the survey and been called away to tend to patient needs. A shorter survey or a survey which could be completed on the nurses' own time may have avoided this issue.

Study Implications

Magnet standards and philosophies do improve the attributes of the work environment leading to job satisfaction and retention of nursing staff. Research has repeatedly demonstrated the connection between a Magnet designated hospital and job satisfaction leading to retention of nursing staff. If nursing leaders have not adopted these standards, they need to do so to enhance the work environment. Whether or not adopting these standards without seeking the official designation will suffice remains to be seen. The Magnet designation is a signal to registered nurses seeking employment that the facility has a positive work environment. Leaders must balance the expense of

achieving and retaining this designation with the potential expense associated with not achieving this designation.

Although the Magnet award is given to the hospital as a whole, it is a nursing driven process. Most nursing leaders have been well indoctrinated into the Magnet standards. Other leaders in the organization may not be as familiar with these standards. Dissatisfaction in other departments has the potential to impact the work of registered nurses. Nurses are dependent upon the infrastructure of the facility to effectively and efficiently accomplish their work. For example, if there is a decision to eliminate the Patient Transport Team due to finances, it does not mean that the need to transport patients to other departments for diagnostic testing will stop. What it means is that another personnel type within the facility will now transport the patient. In many cases, this is now absorbed by the nursing department; perhaps not by a registered nurse (unless the patient is critical) but by a nurses' assistant. The nurse remaining on the unit will now have to pick up the responsibilities of the nurses' aide as well as his/her own. Nurses are part of an integral health care delivery system. All components of that system must be functioning in concert with one another to assure effective, quality driven patient care.

Turnover of personnel in other departments also impacts registered nurse work and may lead to job satisfaction as nurses have to perform non-nursing functions to compensate. In addition, sometimes other departments eliminate nursing staff now relying on the unit nurses. For example, there are usually nurses hired by Radiology Departments. If there is a decision to eliminate these nurses, the department will now rely on the unit nurses to care for their patient who is undergoing a radiology procedure.

This nurse is removed from the unit for a period of time and must have another nurse on the unit care for her patients in her absence. This creates stress and dissatisfaction for both the nurse pulled away from her assignment and the nurse who is covering two patient assignments.

Experience versus age (generational cohort) may indeed be the better indicator to use in terms of job satisfaction leading to retention. Nurses are graduating from nursing programs in their 20s, 30s, 40s and 50s (Keepnews, et. al, 2010). As an inexperienced nurse, it is difficult to assess the work environment accurately. Philosophies may be stated or written, but are they truly implemented? It is only through experience that an individual can determine if what is being said or written is occurring in reality. Also, for the nurse who is a second career nurse, experience in other industries may influence perceptions of attributes contributing to positive work environments. Maturity of the individual may also be an influential factor.

Chapter VI

CONCLUSION

Future Research

This dissertation study and the results have provided several opportunities for future research. First, research of this nature should be conducted in a geographical area that is not so indoctrinated in the Magnet standards; doing so may have demonstrated a greater difference in the attributes of positive work environments. As has been mentioned, New Jersey hospitals had taken the lead in Magnet hospital designations. The marketing campaign conducted by Hackensack University Medical Center was the impetus for other hospitals to embrace the Magnet standards or risk being non-competitive in the health care environment. Conducting this research in a state not so familiar with the Magnet standards may have resulted in more specific differences in the working environments of hospitals; providing a direction for improvement. Likewise, conducting similar research across the country would perhaps provide benefit in thwarting a shortage.

The interdependence among the disciplines in the work environment of hospitals has been discussed. Nurses are dependent on multiple departments to effectively and efficiently deliver patient care. A deficit in one of these departments which impedes the work flow can be a source of frustration and dissatisfaction to nurses. Nurses who act as patient advocates by professional standards will find themselves compensating for these deficits by picking up the workload. Research should be conducted regarding positive work environments that are specific to non-nursing departments. The question

becomes, are the Magnet attributes of a positive hospital work environment of equal value to other departments within the hospital?

Turnover of employees throughout the hospital will impact the nursing department. Research pertaining to anticipated turnover among other disciplines would be helpful to administrators allowing them to target areas for intervention and improvement. Retention of experienced personnel throughout the hospital is of equal importance to create a well-functioning, fine-tuned system of health care.

The impending nursing shortage will have an impact on society if not effectively prevented. Given the fact that the factors precipitating this predicted shortage are different than others, administrators must take steps to assure a positive work environment, keep their experienced nurses and successfully attract nursing staff for the future. The profession as a whole must continue to promote nursing as a desirable career choice for men and women.

In addition, the educational arena must assess the reasons they are unable to attract nursing educators and correct those issues for the future. Establishing collaborations with hospitals and their qualified nursing staff may be a mechanism to explore for the future.

All of us will be impacted by a severe nursing shortage in some way; if not personally, through a family member or acquaintance. In the long run, society will benefit by hospital administrator efforts geared toward retention and recruitment of all hospital disciplines, but specifically registered nurses.

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APPENDIX A

A-1: Original 14 Forces of Magnetism

A-2: Revised Forces of Magnetism

Forces of Magnetism

1. *“Quality of nursing leadership-* Nursing leaders were perceived as knowledgeable, strong risk-takers who followed an articulated philosophy in the day to day operations of the nursing department. Nursing leaders also conveyed a strong send of advocacy and support on behalf of the staff.
2. *Organizational structure* – Organizational structures were characterized as flat, rather than tall, and where unit-based decision making prevailed. Nursing departments were decentralized, with strong representation evident in the organizational committee structure. The Chief Nursing Officer reported to the Chief Executive Officer.
3. *Management style* – Hospital and nursing administrators were found t use a participative management style, incorporating feedback from staff at all levels of the organization. Feedback was characterized as encouraged and valued. Nurses serving in leadership positions were visible accessible, and committed to communicating effectively with staff.
4. *Personnel policies and programs* – Salaries and benefits were characterized as competitive. Rotating shifts were minimized and creative and flexible staffing models were used. Personnel policies were created with staff involvement and significant administrative and clinical promotional opportunities existed.
5. *Professional models of care* – Models of care were used that gave nurses the responsibility and authority for the provision of patient care. Nurses were accountable for their own practice and were the coordinators of care.
6. *Quality of Care* – Nurses perceived that they were providing high-quality care to their patients. Providing quality care was seen as an organizational priority as well, and nurses serving in leadership positions were viewed as responsible for developing the environment in which high-quality care could be provided.
7. *Quality improvement-* Quality improvement activities were viewed as educational. Staff nurses participated in the quality improvement process and perceived the process as one that improved the quality of care delivered within the organization.

8. *Consultation and resources* – Adequate consultation and other human resources were available. Knowledgeable experts, particularly advanced practice nurses, were available and used. In addition, peer support was given within and outside the nursing division.
9. *Autonomy* – Nurses were permitted and expected to practice autonomously, consistent with professional standards. Independent judgment was expected to be exercised within the context of a multidisciplinary approach to patient care.
10. *Community and the hospital* – Hospitals that were best able to recruit and retain nurses also maintained a strong community presence. A community presence was seen in a variety of ongoing, long-term outreach programs. These outreach programs resulted in the hospital being perceived as a strong, positive, and productive corporate citizen.
11. *Nurses as teachers* – Nurses were permitted and expected to incorporate teaching in all aspects of their practice. Teaching was one activity that reportedly gave nurses a great deal of professional satisfaction.
12. *Image of nursing* – Nurses were viewed as integral to the hospital's ability to provide patient care services. The services provided by nurses were characterized as essential to other members of the healthcare team.
13. *Interdisciplinary relationships* – Interdisciplinary relationships were characterized as positive. A sense of mutual respect was exhibited among all disciplines.
14. *Professional development* – Significant emphasis was placed on orientation, in-service education, continuing education, formal education, and career development. Personal and professional growth and development were valued. In addition, opportunities for competency-based clinical advancement existed, along with the resources to maintain competency.”

Source: American Nurses Credentialing Center (2005). *Magnet Recognition Program*. Silver Spring, Maryland: American Nurses Credentialing Center.

Revised Forces of Magnetism

1. "*Transformational Leadership* (encompasses quality of nursing leadership and management style)- The Chief Nursing Officer (CNO) in a Magnet organization is a knowledgeable, transformational leader who develops a strong vision and well-articulated philosophy, professional practice model and strategic and quality plans in leading nursing services. The transformational CNO communicates expectations, develops leaders, and evolves the organization to meet current and anticipated needs and strategic priorities. Nursing leaders at all levels of the organization convey a strong sense of advocacy and support on behalf of staff and patients.

The CNO must be strategically positioned within the organization to effectively influence other stakeholders, including the board of directors/trustees. Strategic positioning is imperative to achieving the level of influence required to lead others both operationally and during periods of change management due to internal or external factors. Executive-level nursing leaders serve at the executive level of the organization, with the CNO typically reporting to the chief executive officer.

The nursing organization must be continually assessed, and appropriate strategic and quality plans for nursing and patient care developed that are congruent with those of the organization. The CNO must secure adequate resources to implement these plans and engage in interdisciplinary efforts to accomplish this work.

Wherever nursing is practice, the CNO must develop structures, processes, and expectations for staff nurse input and involvement throughout the organization. Mechanisms must be implemented for evidence-based practice to evolve and for innovation to flourish. The CNO should be seen as an executive leader and nursing advocate and perceived as leading nursing practice and patient care. The CNO is visible, accessible, and communicates effectively in an environment of mutual respect. As a result, nurses throughout the organization should perceive that their voices are heard, their input valued, and their practice supported.

2. *Structural Empowerment* (encompasses organizational structure, personnel policies and programs, community and the healthcare organization, image of nursing and professional development)- Magnet structural environments are generally flat, flexible, and decentralized. Nurses throughout the organization are involved in self-governance and decision-making structures and processes that establish standards of practice and address issues of concern. The flow of information and decision-making is bi-directional and horizontal between and among professional nurses at the bedside, the leadership team and the CNO.

The CNO serves on the highest-level councils and/or committees and task forces that address excellence in patient care and the safe, efficient, and effective operation of the organization.

The healthcare organization promotes relationships among all types of community organizations to develop strong partnerships to improve patient outcomes and the members of the communities they serve. Magnet nurses extend their influence to professional and community groups, advancing the nursing profession and supporting organizational goals and personal and professional growth and development.

The organization uses multiple strategies to establish structures, systematic and equitable processes, and expectations that support lifelong professional learning, development, and career advancement. Relationships are established throughout the organization and with the community to encourage educational advancement.

Nurse contributions to the organization and community are recognized for their positive effect on patients and families. Nurse are acknowledged in various and substantial ways for these accomplishments, enhancing the image of nursing in the community.

3. *Exemplary Professional Practice* (encompasses professional models of care, consultation and resources, autonomy, nurses as teachers, interdisciplinary relationships, quality of care: ethics, patient safety and quality infrastructure and quality improvement) – A professional practice model is the overarching conceptual framework for nurses, nursing care, and interdisciplinary patient care. It is a schematic description of a system, theory, or phenomenon that depicts how nurses practice, collaborate, communicate and develop professionally to provide the highest quality care for those served in the organization (e.g., patients, families, community). The Professional Practice Model illustrates the alignment and integration of nursing practice with mission, vision, philosophy, and values that nursing has adapted. Magnet hospitals take the lead in research efforts to create and test models of professional practice for nurses.

The Care Delivery System is integrated within the Professional Practice Model and promotes continuous, consistent, efficient, and accountable delivery of nursing care. The Care Delivery System is adapted to regulatory considerations and describes the manner in which care is delivered, skill set required, context of care, and expected outcomes of care. Nurses create patient care delivery systems that delineate the nurses' authority and accountability for clinical decision-making and outcomes. At the organizational level, nurse leaders ensure that care is patient/family centered.

Exemplary professional practice is evident in Magnet hospitals. Nurses have significant control over staffing and scheduling processes and work in

collaboration with interdisciplinary partners to achieve high-quality patient outcomes.

Interdisciplinary collaboration is evident with clear expectations and direction to all practicing nurses about the importance of partnerships with patients and families, and with the disciplines of medicine, pharmacy, nutrition, rehabilitation, social work, psychology, and other professions to ensure a comprehensive care plan. Collegial working relationships within and among the disciplines are valued by the organization and its employees. Mutual respect is based on the premise that all members of the healthcare team make essential and meaningful contributions in the achievement of clinical outcomes. Conflict management strategies are in place and used effectively, when indicated.

The autonomous nurse makes judgments about how to provide care based on the unique needs and attributes of the patient and family. The knowledge, skills and resources have been identified by the nursing staff as necessary to practice are consistently available in the practice environment. These resources form the basis of the Care Delivery System. Competency assessment and peer evaluation ensures that the nurse bases care delivery decisions on current evidence about safe and ethical practice using the nursing process.

Attention is given to achieving equity in care. Workplace advocacy initiatives address ethical issues and the privacy, security, and confidentiality of patients and staff.

The achievement of exemplary professional practice is grounded by a culture of safety, quality monitoring, and quality improvement. Nurses collaborate with other disciplines to ensure that care is comprehensive, coordinated, and monitored for effectiveness to ensure that care is comprehensive, coordinated, and monitored for effectiveness through the quality improvement model. Nurses participate in safety initiatives that incorporate national best practices. Sufficient resources are available to respond to safety initiatives and quality improvements for patients and employees.

Nurses at all levels analyze data and use national benchmarks to gain a comparative perspective about their performance and the care patients receive. Action plans are developed that lead to systematic improvements over time. Magnet hospital data demonstrate outcome measures at or above the benchmark mean in patient and nurse sensitive indicators the majority of the time.

4. *New Knowledge, Innovations, and Improvements* (encompasses quality of care: research and evidence based practice, quality improvement) - Magnet organizations conscientiously integrate evidence-based practice and research into clinical and operational processes. Nurses are educated about evidence-

based practice and research, enabling them to appropriately explore the safest and best practices for their patients and practice environment, and to generate new knowledge. Published research is systematically evaluated and used. Nurses serve on the board that reviews proposals for research, and knowledge gained through research is disseminated to the community of nurses.

Organizations achieving Magnet recognition possess established and evolving programs related to evidence-based practices and research programs. Infrastructures and resources are in place to support the advancement of evidence-based practices and research in all clinical settings. Targets for research productivity are set with participation and leadership in a multitude of research activities within the framework of the practice site.

Innovations in patient care, nursing, and the practice environment are the hallmark of organizations receiving Magnet recognition. Establishing new ways of achieving high-quality, effective, and efficient care is the outcome of transformational leadership, empowering structures and processes, and exemplary professional practice in nursing.

5. *Empirical Outcomes* (encompasses quality care) - Nursing makes an essential contribution to patient, nursing workforce, organizational and consumer outcomes. The empirical measurement of quality outcomes related to nursing g leadership and clinical practice in Magnet organizations is imperative. Throughout the Manual, in each of the other model components, the Empirical Outcomes are requested as Sources of Evidence.

The relationships among the structure and processes of care and associated outcomes need to be continually assessed and monitored. Empirical Outcomes focus on the results and the differences that can be demonstrated based on the application of sound structure and processes in the healthcare team, organization, and systems of care.

Outcomes are dynamic and define areas of both improved performance and those requiring additional effort to achieve improvement. Organizations must establish baselines for measures and track progress over time compared to the baseline and national benchmarks. Magnet organizations are expected to serve as mentors and lead the way in the provision of quality patient and the creation of environments that contribute to the well-being of the workforce and the community at large.”

Data Source: American Nurses Credentialing Center, (2008). *Application Manual: Magnet Recognition Program*. Silverspring, Maryland: American Nurses Credentialing Center.

APPENDIX B

- B-1 Nurse Work Index- Revised**

- B-2: Permission to use the Nurse Work Index-
Revised**

- B-3: Nurse Work Index-Revised Scoring
Instructions**

Nursing Work Index – Revised

For each item in this section, please indicate the extent to which you agree that the following are present in your current job. Indicate your degree of agreement by circling the appropriate number.

	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree
1. Adequate support services allow me to spend time with my patients.	1	2	3	4
2. Physicians and nurses have good working relationships.	1	2	3	4
3. A good orientation program for newly employed nurses.	1	2	3	4
4. A supervisory staff that is supportive of nurses.	1	2	3	4
5. A satisfactory salary.	1	2	3	4
6. Nursing controls its own practice.	1	2	3	4
7. Active inservice/continuing education programs for nurses.	1	2	3	4
8. Career development/clinical ladder opportunity.	1	2	3	4
9. Opportunity for staff nurses to participate in policy decisions.	1	2	3	4
10. Support of new and innovative ideas about patient care.	1	2	3	4
11. Enough time and opportunity to discuss patient care problems with other nurses.	1	2	3	4
12. Enough registered nurse on staff to provide quality patient care.	1	2	3	4
13. A nurse manager who is a good manager and nursing leader	1	2	3	4

Page 2	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree
14. A chief nursing officer is highly visible and accessible to staff.	1	2	3	4
15. Flexible or modified work schedules are available.	1	2	3	4
16. Enough staff to get the work done.	1	2	3	4
17. Freedom to make important patient care and work decisions.	1	2	3	4
18. Praise and recognition for a job well done.	1	2	3	4
19. Clinical nurse specialists who provide patient care consultation.	1	2	3	4
20. Team nursing as the nursing delivery system.	1	2	3	4
21. Total patient care as the nursing delivery system.	1	2	3	4
22. Primary nursing as the nursing delivery system.	1	2	3	4
23. Good relationships with other departments such as housekeeping and dietary.	1	2	3	4
24. Not being placed in a position of having to do things that are against my nursing judgment.	1	2	3	4
25. High standards of nursing care are expected by the administration.	1	2	3	4
26. A chief nursing executive is equal in power and authority to other top level hospital executives.	1	2	3	4
27. Much teamwork between nurses and doctors.	1	2	3	4
28. Physicians give high quality medical care.	1	2	3	4
29. Opportunities for advancement.	1	2	3	4

Page 3		Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree
30	Nursing staff is supported in pursuing degrees in nursing.	1	2	3	4
31.	A clear philosophy of nursing pervades the patient care environment.	1	2	3	4
32.	Nursing actively participates in efforts to control costs.	1	2	3	4
33.	Working with nurses who are clinically competent.	1	2	3	4
34.	The nursing staff participates in selecting new equipment.	1	2	3	4
35.	A nurse manager backs up the nursing staff in decision making even when the conflict is with a physician.	1	2	3	4
36.	An administration that listens and responds to employee concerns.	1	2	3	4
37.	An active quality assurance program.	1	2	3	4
38.	Staff nurses are involved in the internal governance of the hospital (e.g. practice and policy committees).	1	2	3	4
39.	Collaboration (join practice) between nurses and physicians.	1	2	3	4
40.	A preceptor program for newly hired RNs.	1	2	3	4
41.	Nursing care is based on a nursing rather than a medical model.	1	2	3	4
42.	Staff nurses have the opportunity to serve on hospital and nursing committees.	1	2	3	4
43.	The contributions that a nurse makes to patient care are publically acknowledged.	1	2	3	4

Page 4	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree
44. Nurse managers consult with staff on daily problems and procedures.	1	2	3	4
45. The work environment is pleasant, attractive and comfortable.	1	2	3	4
46. Opportunity to work on a highly specialized unit.	1	2	3	4
47. Written up to date nursing care plans for all patients.	1	2	3	4
48. Patient assignments foster continuity of care (the same nurse cares for the patient from one day to the next).	1	2	3	4
49. Regular permanently assigned staff nurses never have to float to another unit.	1	2	3	4
50. Staff nurses actively participate in developing their work schedules (e.g. what days they work, days off, etc.).	1	2	3	4
51. Standardized policies and procedures and ways of doing things.	1	2	3	4
52. Use of nursing diagnoses.	1	2	3	4
53. Floating so that staff is equalized among units.	1	2	3	4
54. Each nursing unit determines its own policies and procedures.	1	2	3	4
55. Use of problem oriented medical record.	1	2	3	4
56. Working with experienced nurses who "know" the hospital.	1	2	3	4
57. Nursing care plans are verbally transmitted from nurse to nurse.	1	2	3	4

Permission to use The Nurse Work Index-Revised
with Scoring Instructions

Cima, Laura

From: Mazurkewicz, Laura [lmaz@nursing.upenn.edu]
Sent: Tuesday, May 25, 2010 2:48 PM
To: Cima, Laura
Subject: FW: Research
Attachments: PES-NWI subscales and scoring.doc; Practice Environment Scale of the Nursing Work Index.doc; RINAH06.02-Lake.pdf; Lake&Friese reduced file size.pdf

Dear Laura,

Thank you for your inquiry. I am replying on behalf of Dr. Lake. Enclosed please find the instrument, scoring instructions, and an article containing PES-NWI scores for ANCC Magnet hospitals from 1998 in Table 1. Dr. Lake's permission is not needed as the instrument is in the public domain due to its endorsement by the National Quality Forum in 2004 and re-endorsement in 2009:

http://www.qualityforum.org/Projects/n-r/Nursing-Sensitive_Care_Measure_Maintenance/Nursing_Sensitive_Care_-_Measure_Maintenance.aspx

However, if you prefer to have Dr. Lake's permission, this email serves as her permission. Please direct any reply to Dr. Lake.

Best wishes,
Laura Mazurkewicz for Dr. Lake

Laura M. Mazurkewicz
Administrative Coordinator
Center for Health Outcomes & Policy Research
418 Curie Blvd.
Philadelphia, PA 19104-4217
p: 215-898-4727
f: 215-573-2062

SUBSCALES AND COMPONENT ITEMS

The Practice Environment Scale of the Nursing Work Index	
Subscale	Component items
Nurse Participation in Hospital Affairs	5, 6, 11, 15, 17, 21, 23, 27, 28
Nursing Foundations for Quality of Care	4, 14, 18, 19, 22, 25, 26, 29, 30, 31
Nurse Manager Ability, Leadership, and Support of Nurses	3, 7, 10, 13, 20
Staffing and Resource Adequacy	1, 8, 9, 12
Collegial Nurse-Physician Relations	2, 16, 24

SCORING DIRECTIONS

Score each item so that higher numbers indicate greater agreement. Thus, if *Strongly agree* was coded 1, and *Strongly disagree* was coded 4, you must first reverse code (by subtracting each answer from 5) before calculating subscale scores. Once the coding is in the right direction, calculate nurse-specific subscale scores as the mean of the items in the subscale. The mean permits easy comparison across subscales. For hospital-level scores, calculate the item-level means at the hospital level. Then proceed with the standard computation for subscale scores. This approach permits all nurse responses, including responses of nurses who did not answer all items, to be included in the hospital score.

Calculate an overall PES-NWI “composite” score as the mean of the five subscale scores. This approach gives equal weight to the subscales, rather than to the items.

APPENDIX C

- C-1: Anticipated Turnover Scale (ATS)**
- C-2: Permission to use the Anticipated Turnover Scale**
- C-3: Scoring Instructions, Anticipated Turnover Scale**

Anticipated Turnover Scale (ATS)

ITEMS	Strongly Agree	Moderately Agree	Slightly Agree	Uncertain	Slightly Disagree	Moderately Disagree	Strongly Disagree
1. I plan to stay in my position awhile	7	6	5	4	3	2	1
2. I am quite sure I will leave my position in the foreseeable future.	7	6	5	4	3	2	1
3. Deciding to stay or leave my position is not a critical issue for me at this point in time.	7	6	5	4	3	2	1
4. I know whether or not I will be leaving this agency within a short time.	7	6	5	4	3	2	1
5. If I got another job offer tomorrow, I would give it serious consideration.	7	6	5	4	3	2	1
6. I have no intentions of leaving my present position.	7	6	5	4	3	2	1
7. I have been in my position about as long as I want to.	7	6	5	4	3	2	1
8. I am certain I will be staying here awhile.	7	6	5	4	3	2	1
9. I do not have any specific idea how much longer I will stay.	7	6	5	4	3	2	1
10. I plan to hang on to this job for a while.	7	6	5	4	3	2	1
11. There are big doubts in my mind as to whether or not I will really stay in this agency.	7	6	5	4	3	2	1
12. I plan to leave this position shortly.	7	6	5	4	3	2	1

Nurse Retention Evidence-Based Guideline

© The University of Iowa Gerontological Nursing Interventions Research Center

Research Translation and Dissemination Core

Written 02/2002

Permission to The Anticipated Turnover Scale
with Instructions for Use

Subj: **Re: Dr. Ada Hinshaw**
Date: 4/26/2011 9:28:55 A.M. Eastern Daylight Time
From: AdaSue.Hinshaw@usuhs.mil
To: LauraE228@aol.com
CC: phandel@usuhs.mil

My executive secretary will be sending the Anticipated Turnover Scale to you. You have Dr. and my approval for its use. Best of success with your research.

Ada Sue Hinshaw, PhD, RN, FAAN
Dean and Professor
Graduate School of Nursing
Uniformed Services University
Phone: 301-295-9004
Fax: 301-295-1707

Classification: UNCLASSIFIED
Caveats: None

>>> <LauraE228@aol.com> 4/25/2011 5:13 PM >>>
My name is Laura Cima. I am a doctoral student at Seton Hall University.
I am trying to reach Dr. Ada Hinshaw to request permission to use the
Anticipated Turnover Scale.

Classification: UNCLASSIFIED

Caveats: None

Scoring Guidelines, Anticipated Turnover Scale

ANTICIPATED TURNOVER SCALE

By

(Hinshaw, A.S. and Atwood, J. R.)

Response Options

AS	=	Agree Strongly
MA	=	Moderately Agree
SA	=	Slightly Agree
U	=	Uncertain
SD	=	Slightly Disagree
MD	=	Moderately Disagree
DS	=	Disagree Strongly

Directions: For each item below, circle the appropriate response. Be sure to use the full range of responses (Agree Strongly to Disagree Strongly).

Scoring Key	Options	Item
(-)	AS MA SA U SD MD DS	1. I plan to stay in my position awhile.
(+)	AS MA SA U SD MD DS	2. I am quite sure I will leave my position in the foreseeable future.
(-)	AS MA SA U SD MD DS	3. Deciding to stay or leave my position is not a critical issue for me at this point in time.
(+)	AS MA SA U SD MD DS	4. I know whether or not I'll be leaving this agency within a short time.

- (+) AS MA SA U SD MD DS 5. If I got another job offer tomorrow, I would give it serious consideration.
- (-) AS MA SA U SD MD DS 6. I have no intentions of leaving my present position.
- (+) AS MA SA U SD MD DS 7. I've been in my position about as long as I want to.
- (-) AS MA SA U SD MD DS 8. I am certain I will be staying here awhile
- (-) AS MA SA U SD MD DS 9. I don't have any specific idea how much longer I will stay.
- (-) AS MA SA U SD MD DS 10. I plan to hang on to this job awhile.
- (+) AS MA SA U SD MD DS 11. There are big doubts in my mind as to whether or not I will really stay in this agency.
- (+) AS MA SA U SD MD DS 12. I plan to leave this position shortly.

ATS: Rev 8/84

O: dean's correspondence instruments: tools

INSTRUCTIONS FOR SCORING SCALES AND SUBSCALES

SCALES WITHOUT SUBSCALES

1. GIVE EACH ITEM A SCORE

Use the + and – key provided. For each item, score it according to whether it is positive or negative. For example, on a 5-point scale, for + items, SA is scored 5 and SD is scored 1. Conversely, for a negative item on that same 5-point scale, an item response of SA is scored 1 and SD is scored 5.

2. COMPUTE THE SCORES

APPENDIX D

- D-1: Application to Seton Hall University Institutional Review Board to Conduct Pilot Study at Hackensack University Medical Center, page 1**
- D-2: Approval from Seton Hall University Institutional Review Board to Conduct Pilot Study**

For the full IRB application and/or any questions or

Further information regarding the application

Please contact the PI at LauraE228@aol.com

SETON HALL UNIVERSITY IRB APPLICATION SHEET

Application must be typed.

If more than one researcher, give information on a separate page for #1-4 for each researcher. Indicate who is Principal Investigator.

For office use only:

Exempt

Expedited

Full

1. NAME: Laura E. Cima HOME PHONE: _____
EMAIL ADDRESS: LauraE228@aol.com
2. HOME MAILING ADDRESS: _____
3. PLACE OF EMPLOYMENT: Hackensack University Medical Center
4. POSITION OR JOB TITLE: Vice President, Nursing WORK PHONE: 201-996-2129
5. TITLE OF STUDY:
Pilot Study: Understanding Nursing Generational Differences in Job Satisfaction in Magnet Designated and Non-Magnet Designated Hospitals
6. Study is: (a) Thesis _____ (b) Dissertation _____ (c) Other [specify] **PILOT STUDY**
7. Does your research have a potential or actual financial interest of any kind (e.g. any form of payment for services, equity interests, intellectual property rights, etc.)?
____ Yes. (Please complete the Financial Conflict of Interest form at the end of this IRB application and submit with the application.)
X No
8. Name of advisor, thesis or dissertation, class professor (If applicable):
Dissertation Chair/Advisor: Dr. Deborah DeLuca
Dissertation Committee Member: Dr. Terrence Cahill
Dissertation Committee Member: Dr. Raju Parasher
School of Health and Medical Sciences, Graduate Programs in Health Sciences Leadership Department
Alfieri Hall
400 South Orange Avenue
South Orange, NJ 07079

Phone: 973-275-2842 delucade@shu.edu

Phone: 973-275-2440 cahillte@shu.edu

Phone: 973 275- 2395 parashra@shu.edu

9. Anticipated starting and completion dates:

June, 2011 – Dec, 2011:

Pilot Study (application attached herein)



OFFICE OF INSTITUTIONAL
REVIEW BOARD

SETON HALL UNIVERSITY

June 15, 2011

Laura E. Cima
85 Avenue D
Lodi, NJ 07644

Dear Ms. Cima,

The Seton Hall University Institutional Review Board has reviewed your research proposal entitled "Understanding Nursing Generational Differences in Job Satisfaction in Magnet Designated and Non-Magnet Designated Hospitals" and has approved it as submitted under exempt status.

Enclosed for your records is the signed Request for Approval form.

Please note that, where applicable, subjects must sign and must be given a copy of the Seton Hall University current stamped Letter of Solicitation or Consent Form before the subjects' participation. All data, as well as the investigator's copies of the signed Consent Forms, must be retained by the principal investigator for a period of at least three years following the termination of the project.

Should you wish to make changes to the IRB approved procedures, the following materials must be submitted for IRB review and be approved by the IRB prior to being instituted:

- Description of proposed revisions;
- *If applicable*, any new or revised materials, such as recruitment fliers, letters to subjects, or consent documents; and
- *If applicable*, updated letters of approval from cooperating institutions and IRBs.

At the present time, there is no need for further action on your part with the IRB.

In harmony with federal regulations, none of the investigators or research staff involved in the study took part in the final decision.

Sincerely,



Mary F. Ruzicka, Ph.D.
Professor
Director, Institutional Review Board

cc: Dr. Deborah DeLuca

APPENDIX E

E-1: PI Self Developed Demographic Form

Demographic Form

Understanding the Relationship between Hospital Work Environments, Nurse Job Satisfaction and Nurse Retention across the Generations

Demographic Section

(Please check or fill in the appropriate response)

1. Sex: Female Male

2. Age:

18 to 20 <input type="checkbox"/>	46 to 50 <input type="checkbox"/>
21 to 25 <input type="checkbox"/>	51 to 55 <input type="checkbox"/>
26 to 30 <input type="checkbox"/>	56 to 60 <input type="checkbox"/>
31 to 35 <input type="checkbox"/>	61 to 65 <input type="checkbox"/>
36 to 40 <input type="checkbox"/>	66 to 70 <input type="checkbox"/>
41 to 45 <input type="checkbox"/>	

3. Years of experience as a registered nurse

4. Years of experience in your current organization as a registered nurse

5. Highest nursing degree:

Year Graduated:

Associates Degree

Diploma in Nursing

1. Is the profession of nursing a second career for you?

Yes _____

No _____

DO NOT COPY

APPENDIX F

- F-1: Application to Hackensack University Medical Center Institutional Review Board to Conduct Pilot Study, page 1**

- F-2: Approval, Hackensack University Medical Center Institutional Review Board**



ID: Pro00001777

Date: Sunday, January 17, 2016 4:22:59 PM

[Print](#) [Close](#)

Study Identification Information

This is the first step in your Human Research Application. You will automatically be guided to the appropriate forms needed to complete your submissions.

*** Abbreviated Title:**

Work Environments, Job Satisfaction and Retention Across the Generations

*** Full Study Title:**

Understanding the Relationship Between Hospital Work Environments, Nurse Job Satisfaction and Nurse Retention Across the Generations (Pilot Study)

*** Is this study investigator initiated?** Yes No

*** Principal Investigator:**

[Laura Cima](#)

Research Nurse Coordinator:

Sub-Investigators

Last Name	First Name	Organization	Profile
There are no items to display			

Other Study Staff:

Name	Organization	Profile	Role
[View]			Hospital Based Research Assistants or Nurse Managers will be requested to distribute the envelopes to participants
[View] Cheryl Dubenezic	IRB	00000053	IRB Staff

ID: Pro00001777

IRB Researcher Training Records

The following information is taken from your currently approved training records on your researcher profile. If training information, CV or License is outdated or not found on this page, please upload in your e-IRB profile. Please contact 201-996-4012 if assistance is required.

1.0 Principal Investigator's Training
IRB Certification Date:

IRB Certification Renewal Deadline:

IRB Course Status:

IRB Course	Date Completed	Certificate	Score	Course Renewal Deadline
There are no items to display				

2.0 Sub-Investigator IRB Training Certifications:

lastName	firstName	Dept.	title	Certification Date	IRB Renewal Deadline
There are no items to display					



SETON HALL UNIVERSITY

1 8 5 6

LETTER OF SOLICITATION

Study Title: "Dissertation: "Comparing Generational Differences in Job Satisfaction and Retention among Nurses in Magnet and Non-Magnet Designated Hospitals."

Summer, 2012

Dear Generational Nursing Participant:

My name is Laura Cima and I am a doctoral student in the School of Health and Medical Sciences at Seton Hall University. I am conducting a research project that will culminate in completing the requirements for a PhD in Health Sciences Leadership.

Purpose

You're being invited to participate in this research study because you are a licensed registered staff nurse practicing in The Valley Health System. Studies have shown that an eminent nursing shortage in healthcare will negatively impact patient care and outcomes as early as the next 10 years. Additionally, attrition due to an aging nurse population, trying to retain currently practicing nurses while attracting and retaining new nurses to meet the looming shortage is presenting a real challenge to hospital administrators who are trying to balance need, demand and nurse expectations. These issues as well as the growing demand for nurses in settings other than hospitals further compounds the problem of care and patient outcomes. However, the literature also suggests that hospitals that have attained the Magnet award, the highest award granted by the American Nurses Credentialing Center, seem to have more success attracting and retaining nursing talent than those institutions that do not have the Magnet designation. Much is also known in the literature about the value of workplace environment and job satisfaction according to generational groupings in the workplace. However, a clear relationship between job satisfaction and nurse retention or nursing turnover rates has not been established. Therefore, the purpose of this study is to explore the predictive relationship between perceptions of nurse job satisfaction and the four generations of nurses in the workplace in Magnet designated vs. non-Magnet designated hospitals. Retention strategies may have to be altered for the four generations in the workplace as their beliefs, values and preferences about work differ.

School of Health and Medical Sciences
 Department of Graduate Programs in Health Sciences
 Tel: 973.275.2076 • Fax: 973.275.2121
 400 South Orange Avenue • South Orange, New Jersey 07079 • slans@shu.edu

Procedure

During this study, you will be asked to complete 3 questionnaires uploaded into the Academic Survey System and Evaluation Tool (ASSETSM) electronic system through Seton Hall University. This link is included in the e-mail inviting you to participate and allows you to complete the survey electronically. Or, if you prefer, a paper copy survey, these questionnaires will be included in a packet

- (1) **Comparing Generational Differences in Job Satisfaction and Retention among Nurses in Magnet and non-Magnet Designated Hospitals Demographic Questionnaire** - The purpose of this questionnaire is to collect demographic information about you such as your age group, gender, educational level, years of experience in nursing and years of experience at the current organization
- (2) **Nurse Work Index-Revised** - The purpose of this questionnaire is to assess your perceptions of job satisfaction and the workplace environment as well as the Forces of Magnetism and their role in the workplace environment.
- (3) **Anticipated Turnover Scale** - The purpose of this questionnaire is to predict turnover of nurses with the goal of preventing unnecessary turnover. This questionnaire has been strongly linked with attributes of positive work environments

It is important that you complete the 3 questionnaires either electronically or through completing a paper survey. If you choose to complete the paper survey, all three must be returned in the packet. It is also important that the survey is fully completed. Incomplete surveys will have to be excluded from the analysis. The process should take about 20 minutes to complete.

Voluntary Participation

Your participation in this research study is entirely voluntary. You may decide not to participate or to withdraw from participation at any time. If you decide not to participate, you will not be penalized or lose any benefits to which you are otherwise entitled. Consent to participate in this study is indicated by completing the electronic version of the questionnaires and clicking "submit." Or, if you have chosen the paper option, consent to participate is indicated by returning the questionnaires in the packet provided to the research assistant when you are finished.

Anonymity

You will not be identified by name or description in any reports or publications about this study. A coding system on the paper forms, through the use of numbers found in the top left hand corner of each questionnaire, will be used only to verify that all materials given to an individual participant in each packet are returned. You will not indicate your name or other identifying information on any documents associated with this study. This method ensures your complete anonymity at all times.

Benefits of Participation

There are not direct benefits to participating in this study. However, it is hoped that the results obtained will assist healthcare providers understand how to attract and retain nursing talent in their institutions to address the impending nursing shortage and improve patient outcomes, as well as understand generational differences in the workplace and utilize that information effectively to improve retention rates which will positively influence patient outcomes.

Compensation

There is no monetary or other compensation provided for participating in the study.

Confidentiality

All information in this study is kept strictly confidential. All research data will be stored on a USB memory key, or in original paper packets in a locked cabinet in the principal investigator's home office. The principal investigator, Laura Cima, is the only individual who will have access to all of the research data for a period of three years. Thereafter, all research data will be destroyed.

Contacts for Further Information

If you have any questions or would be interested in learning about the results of the study when they are available you may contact the principal investigator, Laura Cima, through the office of Dr. Deborah A. DeLuca, Dissertation Chair, Seton Hall University School of Health and Medical Sciences, 400 South Orange Avenue, South Orange, New Jersey, 07079, at (973) 275-2842 or the Office of the Seton Hall University Institutional Review Board at (973) 313-6314.

Sincerely,



Laura Cima, RN

APPENDIX H

**H-1: PI Self-Developed Training Script for
Research Assistants**

Training Script Example

You are asked to assist with a pilot study entitled “Understanding Nursing Generational Differences in Job Satisfaction in Magnet Designated and Non-Magnet Designated Hospitals.” The purpose of this initial pilot study is two-fold. First, to determine if there are predictive differences between nurses’ perceptions of job satisfaction among the generations, turnover/retention, workplace environment and the “Forces of Magnetism” as measured by the Nurse Work Index – Revised (NWI-R) in Magnet-designated institutions and to approximate anticipated turnover of nurses using the Anticipated Turnover Scale (ATS) The second purpose is to determine if the participant recruitment and data collection processes and methodology employed in the pilot study are appropriate and manageable for the larger dissertation research project.

You will be receiving a computer-generated list from the Human Resources Department listing all registered staff nurses employed at the medical center with their e-mail addresses. You will be asked to upload a Letter of Solicitation and the web link to the Academic Survey System and Evaluation Tool (ASSET) which includes the Demographic Questionnaire, the Nurse Work Index-Revised and the Anticipated Turnover Scale.

A paper option is also made available to participants. You will be receiving 30 envelopes which contain a Letter of Solicitation, Demographic Questionnaire, the Nurse Work Index-Revised Survey, the Anticipated Turnover Scale and two number 2 pencils. Please distribute these envelopes upon request to registered staff nurses who prefer the paper survey. The identity of those preferring the paper survey is not to be revealed to the principal investigator.

Instruct participants to read the Letter of Solicitation carefully then complete the surveys. Once complete, return the information to the envelope and seal it. Reinforce with nursing staff that participation is voluntary and there is no way to link the completed surveys

with the individuals. The codes on the bottom of the survey are for the purpose of reconciling what has been distributed and what surveys are returned. Advise the registered staff nurses that you will pick up completed surveys within one week, or they can put it in your office mailbox, located in the Staffing Office on the 1st floor of the Main Building.

Manila envelopes will be returned to the principal investigator on a daily basis, placed in a locked box in her office.

Please thank the individuals in advance for participating. Once the surveys are picked up, return to the locked box in the principal investigator's office.

You will also be asked to e-mail the registered staff nurses on two additional occasions to remind them of the survey and elicit their participation with a message that states the following:

“Dear Staff Nurse:

If you have not already participated in the survey titled: ‘Understanding Nursing Generational Differences in Job Satisfaction In Magnet and Non-Magnet Designated Hospitals,’ we once again invite you to do so. Attached, please find the Letter of Solicitation and the web link to the Academic Survey System and Evaluation Tool (ASSET) through Seton Hall University. As a reminder, your participation in this survey is totally confidential. Paper copies of surveys will be provided upon request through contacting the Research Assistant, Claudia Douglas, RN, MSN at extension 2730.

Your invaluable participation in this survey is very much appreciated.”

APPENDIX I

- I-1: Application to Seton Hall University Institutional Review Board to Conduct Full Study in Five Additional Hospitals: Jersey Shore University Medical Center, Morristown Medical Center, Overlook Medical Center, Trinitas Medical Center and Valley Hospital, page 1**

- I-2: Approval from Seton Hall University Institutional Review Board**

- I-3: Amendment to Research Proposal and Approval from Seton Hall University Institutional Review Board**

For the full IRB application and/or any questions or

Further information regarding the application

Please contact the PI at LauraE228@aol.com

SETON HALL UNIVERSITY IRB APPLICATION SHEET

For office use only:

 ExemptApplication must be typed.

If more than one researcher, give information on a separate page for #1-4 for each researcher. Indicate who is Principal Investigator.

1. NAME: Laura E. Cima HOME PHONE: [REDACTED]

EMAIL ADDRESS: LauraE228@aol.com

2. HOME MAILING ADDRESS: [REDACTED]

3. PLACE OF EMPLOYMENT: Hackensack University Medical Center

4. POSITION OR JOB TITLE: Vice President, Nursing WORK PHONE: 201-996-2129

5. TITLE OF STUDY:

Understanding Nursing Generational Differences in Job Satisfaction in Magnet Designated and Non-Magnet Designated Hospitals

6. Study is: (a) Thesis _____ (b) Dissertation X (c) Other [specify]

7. Does your research have a potential or actual financial interest of any kind (e.g. any form of payment for services, equity interests, intellectual property rights, etc.)?

Yes. (Please complete the Financial Conflict of Interest form at the end of this IRB application and submit with the application.)

No

8. Name of advisor, thesis or dissertation, class professor (If applicable):

Dissertation Chair/Advisor: Dr. Deborah DeLuca

Dissertation Committee Member: Dr. Terrence Cahill

Dissertation Committee Member: Dr. Raju Parasher

School of Health and Medical Sciences, Graduate Programs in Health Sciences Leadership
Department

Alfieri Hall

400 South Orange Avenue

South Orange, NJ 07079

Phone: 973-275-2842

delucade@shu.edu



July 24, 2012

Laura Cima

Dear Ms. Cima,

The Seton Hall University Institutional Review Board has reviewed the information you have submitted addressing the concerns for your proposal entitled "Comparing Generational Differences in Job Satisfaction and Retention Among Nurses in Magnet Designated and Non-Magnet Designated Hospitals." Your research protocol is hereby approved as revised through exempt review. The IRB reserves the right to recall the proposal at any time for full review.

Please note that, where applicable, subjects must sign and must be given a copy of the Seton Hall University current stamped Letter of Solicitation or Consent Form before the subjects' participation. All data, as well as the investigator's copies of the signed Consent Forms, must be retained by the principal investigator for a period of at least three years following the termination of the project.

Should you wish to make changes to the IRB approved procedures, the following materials must be submitted for IRB review and be approved by the IRB prior to being instituted:

- Description of proposed revisions;
- *If applicable*, any new or revised materials, such as recruitment fliers, letters to subjects, or consent documents; and
- *If applicable*, updated letters of approval from cooperating institutions and IRBs.

At the present time, there is no need for further action on your part with the IRB.

In harmony with federal regulations, none of the investigators or research staff involved in the study took part in the final decision.

Sincerely,

Mary F. Ruzicka, Ph.D.
 Mary F. Ruzicka, Ph.D.
 Professor
 Director, Institutional Review Board

cc: Dr. Deborah DeLuca

Office of Institutional Review Board

Presidents Hall • 400 South Orange Avenue • South Orange, New Jersey 07079 • Tel: 973.313.6314 • Fax: 973.275.2361 • www.shu.edu

Laura E. Cima

June 13, 2012

Mary F. Ruzicka, Ph.D.
Office of the IRB, President's Hall
Seton Hall University
400 South Orange Avenue
South Orange, NJ 07079

Dear Dr. Ruzicka,

Attached please find a copy of my approved IRB application corresponding to my pilot study entitled "*Understanding Generational Differences in Job Satisfaction and Retention among Nurses in a Magnet Designated Hospital (Pilot Study)*." I conducted the pilot study according to the approved protocol and the outcomes of the pilot study demonstrated that the methodology proposed in the pilot study is suitable now to conduct my dissertation study.

However, based on the outcomes of the pilot study and the feedback I received from the presentation of the pilot study findings to my Committee and the GPHS Department Faculty, students and invited others from the Seton Hall University campus during my Dissertation Proposal Hearing on May 22, 2012, I am requesting some amendments to the study.

Therefore, as recommended, I have completed the full application for this study, which is attached for your review. *All amendments to the initial pilot study protocol are highlighted in yellow.* Additionally, I have provided an overview of the changes below.

Please note: Because I have added seven hospitals, listed herein, due to the size of the sample (N= 1,875-2,500 participants needed) I require, as estimated from the pilot study, and the process to achieve IRB approval from each location, which I have already commenced (in order to attach the approvals to this application) to conduct my study varies in time tremendously, I am submitting this application only with the hospitals for which I have attained IRB site approval already so that I may begin my study data collection this summer. *I have highlighted the hospitals from which I have already received The IRB site approval(s) that I have already received and have attached to this application for SHU IRB review and approval are The Valley Hospital for your ease in identification.*

As I receive back each IRB site approval from each of the remaining hospitals listed herein, I intend to submit to the Seton Hall University IRB, amendments to this IRB application for approval prior to conducting any study data collection from participants at the locations indicated. I will hold these amendment requests until I have a few gathered at one time to facilitate the process from your side. *Every time I submit an amendment request for approval, I will highlight in green which new IRB site approvals are attached and include a new cover letter for clarity as well.*

The hospitals that are being amended to the original pilot study application are as follows:

Valley Hospital – Paramus, NJ
 Morristown Memorial Hospital (Atlantic Health) – Morristown, NJ
 Jersey Shore University Medical Center (Meridian Health) - Neptune, NJ
 Overlook Hospital (Atlantic Health) – Summit, NJ
 Virtua Memorial (Virtual Health System) – Mt. Holly, NJ
 Trinitas Regional Medical Center – Elizabeth, NJ
 St. Barnabas Medical Center – Livingston, NJ

The IRB site approvals received and attached herein with this IRB application are: The Valley Hospital. The letter of approval is included as (list).

General Amendments:

The proposed changes, listed in detail below, are being requested in order to adequately analyze the data for the dissertation project. Amendments/modifications are being made to the following items: the purpose of the dissertation study, the demographic questionnaire, sample size and locations, and research question and hypothesis. The detailed changes are as follows:

1. Modifying the purpose of the study: eliminate the need to determine if the methodology suggested is suitable for the greater dissertation study; add further predictive relationships and effects between variables.

Rationale: Since the methodology was found to be appropriate for the larger dissertation study during the pilot study, it is not being changed for the dissertation study; this merely provides more opportunity to explore relationships among and between variables.

2. Modifying the demographic questionnaire to remove questions pertaining to the year of graduation for each degree the participant held is of no particular value added to the research and “clutters” the survey.

Rationale: A nurse can sit for her licensing examination if she graduates from a two year, three year or four year program. This is one of the difficulties with the profession. Often, nurses will pursue additional degrees which may be a bachelors, masters or PhD in nursing or another field. There are 8 possible degree types. Many participants had more than one degree, so there would be multiple dates. These questions will be removed for the larger study because once again, it does not add any value to the study.

3. Modifying the demographic questionnaire to add the question: “Are you currently pursuing an advanced degree?”

Rationale: The opportunities for registered nurses to advance their education is an important factor in retention and development.

4. Modifying the demographic questionnaire to add the question: “Were you educated in the United States? If not, where?”

The hospitals that are being amended to the original pilot study application are as follows:

Valley Hospital – Paramus, NJ
 Morristown Memorial Hospital (Atlantic Health) – Morristown, NJ
 Jersey Shore University Medical Center (Meridian Health) - Neptune, NJ
 Overlook Hospital (Atlantic Health) – Summit, NJ
 Virtua Memorial (Virtual Health System) – Mt. Holly, NJ
 Trinitas Regional Medical Center – Elizabeth, NJ
 St. Barnabas Medical Center – Livingston, NJ

The IRB site approvals received and attached herein with this IRB application are: The Valley Hospital. The letter of approval is included as (list).

General Amendments:

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1. Modifying the purpose of the study: eliminate the need to determine if the methodology suggested is suitable for the greater dissertation study; add further predictive relationships and effects between variables.

Rationale: Since the methodology was found to be appropriate for the larger dissertation study during the pilot study, it is not being changed for the dissertation study; this merely provides more opportunity to explore relationships among and between variables.

2. Modifying the demographic questionnaire to remove questions pertaining to the year of graduation for each degree the participant held is of no particular value added to the research and “clutters” the survey.

Rationale: A nurse can sit for her licensing examination if she graduates from a two year, three year or four year program. This is one of the difficulties with the profession. Often, nurses will pursue additional degrees which may be a bachelors, masters or PhD in nursing or another field. There are 8 possible degree types. Many participants had more than one degree, so there would be multiple dates. These questions will be removed for the larger study because once again, it does not add any value to the study.

3. Modifying the demographic questionnaire to add the question: “Are you currently pursuing an advanced degree?”

Rationale: The opportunities for registered nurses to advance their education is an important factor in retention and development.

4. Modifying the demographic questionnaire to add the question: “Were you educated in the United States? If not, where?”

A two-way ANOVA will be used, a between subjects analysis
 Post hoc tests using Tukey's HSD will be used with a significance of $p < 0.05$
 Pearson r correlation will be used
 A regression analysis will be used to analyze the Magnet designated hospital participants and the non-Magnet designated hospital participants and the five subsets of the Nurse Work Index revised, which are:

Nurse Participation in Hospital Affairs
 Nurse Physician Collegial Relationships
 Staffing Resource and Adequacy
 Nursing Foundations for Quality of Care
 Nurse Manager Ability and Leadership

Rationale: These analyses match the questions being asked, subsequent to the results attained from the sample ($n=300$) from the pilot study.

12. Revising the approved research questions/hypotheses to account for descriptive analysis of nurse retention, job satisfaction and generational differences; explore interactive effects and finally explore differences among specific demographic characteristics. A breakdown of the approved research question and the requested change to the research questions are listed below. The questions/hypotheses that have been adjusted are highlighted.

Approved Research Question/Hypothesis	Requested Change
<p>RQ1. Is there a difference in nurse perceptions of job satisfaction, as measured by the Nurse Work Index-Revised, among all nurses who work in Magnet designated hospitals versus non-Magnet designated hospitals?</p> <p>H1. Job satisfaction among nurses in Magnet designated hospitals will be higher or more favorable than job satisfaction among nurses in non-Magnet hospitals.</p>	<p>RQ1. Is there a significant difference in job satisfaction as measured by the NWI-R and the five subscales among registered nurses working in Magnet designated versus non-Magnet designated hospitals?</p> <p>The five subscales are:</p> <ul style="list-style-type: none"> • Nurse Participation in Hospital Affairs • Nurse Physician Collegial Relationships • Staffing Resource and Adequacy • Nursing Foundations for Quality of Care • Nurse Manager Ability and Leadership. <p>H1 no change; Significance determined at $p < 0.05$</p>
<p>RQ2. Is there a difference in perceptions of job satisfaction as measured by the Nurse Work Index-Revised, among the 4 generations of nurses in Magnet designated vs. non-Magnet designated hospitals?</p> <p>H2a. High job satisfaction levels will correlate with all generations of nurses</p>	<p>RQ2. Is there a significant difference in job satisfaction among the four generations of registered nurses (as measured by the NWI-R and its five subscales) working in Magnet and non-Magnet designated hospitals?</p> <p>H2a, H2b no changes; Significance determined at $p < 0.05$</p>

<p>employed in Magnet designated hospitals.</p> <p>H2b. Low job satisfaction levels will correlate with all generations of nurses employed in non-Magnet designated hospitals</p>	
<p>RQ3a. Is there a difference in perceptions of job satisfaction, as measured by the Nurse Work Index-Revised, and nurse retention rates among 4 generations of nurses, in Magnet designated vs. non-Magnet designated hospitals?</p> <p>H3a1. High job retention rates will correlate with high job satisfaction levels across all generations of nurses employed in Magnet designated hospitals.</p> <p>H3a2. High job turnover rates/low job retention rates will correlate with low job satisfaction levels across all generations of nurses employed in non-Magnet designated hospitals.</p> <p>RQ3b. Is there a difference between nurse perceptions of job satisfaction, as measured by the Nurse Work Index – Revised, and nurse turnover/retention rates among the Veteran nurses and as among the Baby Boomers, among the Generation X and among Millennials, in Magnet designated vs. non-Magnet designated hospitals?</p> <p>The corresponding hypotheses are: H3b1. Veteran generation nurses will show higher rates of retention and job satisfaction in both Magnet and non-Magnet designated hospitals.</p> <p>H3b2. Baby Boomer generation nurses will show higher rates of retention and job satisfaction in Magnet designated hospitals than in non-Magnet designated hospitals.</p> <p>H3b3. Generation X nurses will show equivalent rates of retention</p>	<p>RQ3. Is there a significant difference in job satisfaction among registered nurses as measured by the NWI-R and its five subscales and anticipated turnover as measured by the ATS in Magnet versus non-Magnet designated hospitals?</p> <p>H3a1, H3a2 no change; Significance determined at $p < 0.05$</p>

<p>and job satisfaction both Magnet-designated and non-Magnet designated hospitals.</p> <p>H3b4. Millennial generation nurses will show lower rates of retention and job satisfaction in both Magnet-designated and non-Magnet designated hospitals.</p>	
<p>RQ4a. Is there a difference in nurse perceptions of job satisfaction as measured by the Nurse Work Index-Revised, among 4 generations of nurses in Magnet designated hospitals?</p> <p>H4a1. High job satisfaction levels will correlate with Magnet-qualified workplace environment across all generations of nurses.</p> <p>H4a2. Low job satisfaction levels will correlate with Magnet-qualified workplace environments across all generations of nurses.</p> <p>RQ4b. Is there a difference between nurse perceptions of job satisfaction as measured by the Nurse Work Index-Revised among the Veteran nurses, and as among the Baby Boomers, among Generation X, among the Millennials in Magnet designated hospitals?</p> <p>H4b1. Veteran generation nurses will show high levels of job satisfaction due to workplace environment in Magnet-designated and hospitals.</p> <p>H4b2. Baby boomer generation nurses will show higher levels of job satisfaction due to workplace environment in Magnet-designated hospitals.</p> <p>H4b3. Millennial generation nurses will show lower levels of job satisfaction due to workplace environment in Magnet designated hospitals.</p>	<p>RQ4. Is there a significant difference in anticipated turnover as measured by the ATS among registered nurses working in Magnet designated versus non-Magnet designated hospitals?</p> <p>H4. There is a significant difference in anticipated turnover among registered nurses working in Magnet designated versus non-Magnet designated hospitals.</p> <p>Significance determined at $p < 0.05$</p>

<p>RQ5. Is there a significant relationship ($p < 0.05$), if any, between the "Forces of Magnetism", as measured by the Nurse Work Index Revised, and perceptions of the workplace environment, as measured by the Nurse Work Index Revised, among the four generational groups of nurses, in Magnet designated versus non-Magnet designated hospitals?</p> <p>H5a. There will be a significant relationship ($p < 0.05$) between the "Forces of Magnetism" and perceptions of job satisfaction, across the 4 generations of nurses in Magnet designated hospitals.</p> <p>H5b. There will be a significant relationship ($p < 0.05$) between the "Forces of Magnetism" and perceptions of job satisfaction, across the 4 generations of nurses in non- Magnet designated hospitals.</p>	<p>RQ5. Is there a significant difference among the four generations of registered nurses in anticipated turnover (as measured by the ATS) working in Magnet and non-Magnet designated hospitals?</p> <p>Significance determined at $p < 0.05$</p>
<p>RQ6 Is there a significant relationship ($p < 0.05$), if any, between the "Forces of Magnetism", as measured by the Nurse Work index-Revised, and perceptions of job satisfaction, as measured by the Nurse Work Index-Revised, among the Veterans and among the Baby Boomers, among the Generations Xers and among the Millennials) in the four generational groups of nurses.</p> <p>H6a1. Veteran generation nurses will show a significant relationship ($p < 0.05$) between the "Forces of Magnetism" and perceptions of job satisfaction, in both Magnet-designated and non-Magnet designated hospitals.</p> <p>H6a2a. Baby Boomer generation nurses will show a significant relationship ($p < 0.05$) between the "Forces of Magnetism" and perceptions of job satisfaction in Magnet designated hospitals.</p> <p>H6a3a. Generation X nurses will show a significant inverse relationship ($p < 0.05$) between the "Forces of Magnetism" and</p>	<p>RQ6. Is there a significant difference in the anticipated turnover among registered nurses as measured by the ATS in Magnet or non-Magnet hospitals?</p> <p>Significance determined at $p < 0.05$</p>

<p>perceptions of the job satisfaction, in Magnet designated hospitals.</p> <p>H6b4. Millennial generation nurses will show a significant inverse relationship ($p < 0.05$) between the "Forces of Magnetism" and perceptions of job satisfaction in both Magnet designated and non-Magnet designated hospitals.</p>	
<p>RQ7. Is there a significant difference ($p < 0.05$) in nursing turnover rates across all generations of nurses in Magnet designated versus non-Magnet designated hospitals?</p> <p>H7. There will be a difference in nursing turnover rates across all generations of nurses in Magnet designated versus non-Magnet designated hospitals</p> <p>RQ8. Is there a significant difference ($p < 0.05$) in nurse turnover rates among the Veteran generation nurses, and among the Baby Boomer generation nurses, among the Generation X nurses and among the Millennial generation of nurses in Magnet designated vs. non-Magnet designated hospitals?</p> <p>H8a. There will not be a difference in nurse turnover rates among the Veteran generation nurses in Magnet designated versus non-Magnet designated hospitals.</p> <p>H8b. There will be a difference in nurse turnover rates among the Baby Boomer generation nurses in Magnet designated vs. non-Magnet designated hospitals.</p> <p>H8c. There will be a significant difference ($p < 0.05$) in nurse turnover rates among Generation X nurses in the Magnet designated vs. non-Magnet designated hospitals.</p> <p>H8d. There will be a significant difference ($p < 0.05$) in nurse turnover rates among the Millennial generation of nurses in the Magnet designated vs. non-Magnet designated hospitals.</p>	<p>RQ7. Is there an interactive effect between the job satisfaction (as measured by the NWI-R and its 5 subscales, four generations and anticipated turnover as measured by the ATS among registered nurse in Magnet versus non-Magnet designated hospitals.</p> <p>Significance determined at $p < 0.05$</p>

Additionally, a research assistant was added to the study to assist in the data collection process. This assistant will be trained using the training manual and checklist that were included in the initial protocol. The research assistant completed the NIH Human Subjects Protection Course. The certificate is attached (Appendix D).

Also, at the recommendation of my advisors, the title of the study has been changed to "Comparing Generational Differences in Job Satisfaction and Retention among Nurses Working in Magnet versus non-Magnet Designated Hospitals."

Finally, I have modified the Letter of solicitation (Appendix C).

I extend my sincerest thanks to you and the members of the SHU IRB Committee for your initial approval of my former pilot study and I look forward again to receiving your thoughtful and helpful consideration and approval of my Dissertation Study on "Comparing Nurse Generational Differences in Job Satisfaction Across Magnet Designated and non-Magnet Designated Hospitals."

Sincerely,



Laura E. Cima

Cc: J. Deberto – for Department IRB File, Student File
D. A. DeLuca – for Personal Student File for Committee Use and E-file

REQUEST FOR APPROVAL OF RESEARCH, DEMONSTRATION OR RELATED ACTIVITIES INVOLVING HUMAN SUBJECTS

All material must be typed.

PROJECT TITLE: COMPARING Understanding Nursing Generational Differences in Job Satisfaction in Magnet-Designated and non-Magnet Designated Hospitals. AND RETENTION AMONG NURSES

CERTIFICATION STATEMENT:

In making this application, I(we) certify that I(we) have read and understand the University's policies and procedures governing research, development, and related activities involving human subjects. I (we) shall comply with the letter and spirit of those policies. I(we) further acknowledge my(our) obligation to (1) obtain written approval of significant deviations from the originally-approved protocol BEFORE making those deviations, and (2) report immediately all adverse effects of the study on the subjects to the Director of the Institutional Review Board, Seton Hall University, South Orange, NJ 07079.

Laura E. Cima 6/13/2012
 RESEARCHER(S) OR PROJECT DIRECTOR(S) Laura E. Cima DATE

**Please print or type out names of all researchers below signature.
 Use separate sheet of paper, if necessary.**

My signature indicates that I have reviewed the attached materials and consider them to meet IRB standards.

Deborah A. DeLuca 6/12/2012
 RESEARCHER'S ADVISOR (Dissertation Chair, Dr. Deborah A. DeLuca) DATE

Terrence F. Cahill 6/12/2012
 RESEARCHER'S ADVISOR (Dissertation Committee Member, Department Chair
 Dr. Terrence F. Cahill) DATE

Raju Parasher 6/12/2012
 RESEARCHER'S ADVISOR (Dissertation Committee Member, Dr. Raju Parasher) DATE

Please print or type out name below signature

The request for approval submitted by the above researcher(s) was considered by the IRB for Research Involving Human Subjects Research at the in June 2012 meeting.

The application was approved not approved by the Committee. Special conditions were were not set by the IRB. (Any special conditions are described on the reverse side.)

Mary J. Ruzicka, Ph.D.

DIRECTOR,
SETON HALL UNIVERSITY INSTITUTIONAL
REVIEW BOARD FOR HUMAN SUBJECTS RESEARCH

DATE *9/24/12*

APPENDIX J

Applications to Institutional Review Boards of Participating Hospitals and IRB Letters of Approval, and Notification Letters to Seton Hall Institutional Review Board

- J-1: Application to Jersey Shore University Medical Center (Meridian Health) Institutional Review Board, Page 1 (This application was not approved due to lack of signatures from Jersey Shore UMC)**
- J-2: Application to Atlantic Health System Institutional Review Board to Conduct Research at Morristown Medical Center and Overlook Medical Center, Page 1**
- J-3: Approval from Atlantic Health Institutional Review Board, Page 1**
- J-4: Notification to Seton Hall Institutional Review Board**

- J-5: Application to St. Barnabas Health System Institutional Review Board, Page 1**
- J-6: Approval Letter from St. Barnabas Health System Institutional Review Board**
- J-7: Notification to Seton Hall Institutional Review Board**
- J-8: Application to Trinitas Institutional Review Board, Page 1**
- J-9: Approval from Trinitas Institutional Review Board**
- J-10: Notification to Seton Hall University Institutional Review Board**
- J-11: Application to Valley Hospital Institutional Review Board**
- J-12: Exemption Notification, Valley Hospital Institutional Review Board**
- J-13: Application to St. Barnabas Health System Institutional Review Board for Newark Beth Israel Hospital and Approval**

For the full IRB applications and/or any questions or
further information regarding the application
please contact the PI at LauraE228@aol.com



**Institutional
Review
Board**

--

For IRB Office Use Only:

IRB # _____

PI _____

UNAFFILIATED INVESTIGATOR AGREEMENT

(Complete and submit one completed agreement per unaffiliated investigator)

PRIMARY LOCATION OF RESEARCH:

JSUMC RMC OMC SOMC BAYSH Other:

DEFINITIONS:

Unaffiliated Investigator—an individual that is not employed by Meridian Health or is not a member of a Meridian medical staff and desires to conduct a clinical research study at a Meridian facility and will apply to the Meridian Health IRB for approval of a research study.

Designated Meridian Health Principal Investigator—an individual that is a member of the medical staff of a Meridian facility and/or employed by Meridian, qualified to conduct clinical research, has completed the IRB-required training classes, and is permitted by the Meridian Health IRB policies and procedures to function as a Principal Investigator.

Unaffiliated Investigator Agreement—a legal document that contains provisions related to the conduct of clinical research at Meridian by an Unaffiliated Investigator; the unaffiliated investigator promises to conduct the clinical research in accordance with law, rules, regulations and Meridian policies and procedures. The Agreement contains a provision for indemnification which is the Unaffiliated Investigators promise to be responsible for and defend Meridian against claims or lawsuits that occur because of the acts of the Unaffiliated Investigator.

A. STUDY TITLE

Understanding Generational Differences in Job Satisfaction and Retention Among Nurses Working in Magnet and Non-Magnet Designated Hospitals

B. UNAFFILIATED INVESTIGATOR INFORMATION

Unaffiliated Investigator Name Laura E. Cima	Phone	Email LauraE228@aol.com
Degrees BSN, MBA		
University's Name and Address Seton Hall University, 400 South Orange Ave., South Orange, NJ, 07079		
Contact Name Dr. Deborah DeLuca	Phone 973-275-2842	Email deborah.deluca@shu.edu

Any reference in this Agreement to "Unaffiliated Investigator" or "Investigator" refers to the individual above.

C. DESIGNATED MERIDIAN HEALTH PRINCIPAL INVESTIGATOR FOR THIS STUDY and SPONSOR or FUNDING AGENCY

(Please refer to Section 200 entitled "Investigator Responsibilities and Research Personnel Training" of the Meridian Health IRB Policies and Procedures regarding who may serve as a Principal Investigator)

PI Name Dr. Mary Ann Donohue	Phone (732)-775-5500	Email MDonohue@meridianhealth.com
Address 1945 Route 33, Neptune, NJ 07753		
Sponsor Seton Hall University (Dissertation Project)	Funding Agency Not applicable	



**Atlantic
Health System**

INSTITUTIONAL REVIEW BOARD
Request for Expedited Review (IRB Form-14)

IRB Number _____
(to be assigned by the IRB Office)

Handwritten forms will not be accepted

Federal regulations provide that certain types of research may be considered for review through an expedited process. A primary criterion is that the research be of **minimal risk only**. In addition, the purpose of the research must fit within a series of categories as stipulated by the regulations.

Expedited Review refers to a review method, not an abbreviated or simplified protocol submission. Accordingly, the first step in requesting Expedited Review is to complete the protocol package in full. In addition, the investigator must complete and submit this form. In the event the project is determined to be ineligible for Expedited Review, the protocol will be reviewed by the full committee.

PROJECT

Title: Comparing Generational Differences in Job Satisfaction and Retention in Magnet Designated and non-Magnet Hospitals

Sponsor/Source of Funding: Not applicable

PERSONNEL INFORMATION

Principal Investigator: Laura E. Cima

Atlantic Health System Department: Not applicable

Phone: :

Fax: :

Pager: :

Address:

E-mail:

Co-Investigator/s (list name and department) attach separate sheet if necessary

Not applicable

Individual to Contact for IRB Matters: Laura E. Cima

Phone: :

Is the PI an Atlantic Health System employee or does s/he have staff privileges with an Atlantic Health System facility?

Yes No If no, please attach a completed "Unaffiliated Investigator Agreement Form"

INSTITUTIONS and/or FACILITIES INVOLVED in THIS RESEARCH Check all that apply

Morristown Medical Center

Overlook Medical Center

Newton Medical Center

Other – List:

PROJECT SUMMARY

Provide a brief overview of the objective of the proposed project, highlights of the investigational plan, and participant risks/benefits in lay terminology (<500 words) in the space below or attach summary.

Please see attached



**Atlantic
Health System**

Morristown Medical Center
Overlook Medical Center
Newton Medical Center

LETTER OF IRB
INITIAL APPROVAL

PRINCIPAL INVESTIGATOR: Laura E. Cima, RN, BSN, MBA

TITLE: R12-06-002 Comparing Generational Differences in Job Satisfaction and Retention Among Nurses Working in Magnet Designated and Non-Magnet Designated Hospitals

SPONSOR:

TYPE OF REVIEW: Full Expedited

ITEMS REVIEWED & APPROVED: Study, Study Materials, Questionnaires, and Study Description Letter

APPROVAL DATE: 7/26/12

EXPIRATION DATE: 7/25/13

CONTINUATION REVIEW: 12 months Other

NUMBER OF APPROVED CONSENT FORMS: 0

WAIVER OF DOCUMENTATION OF CONSENT RATIONALE: The research presents no more than minimal risk of harm to subjects and involves procedures or activities for which written consent is not normally required outside of the research context.

EXPEDITED REVIEW CATEGORY: (7) Research on individual or group characteristics or behavior (including, but not limited to research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus groups, program evaluation, human factors evaluation, or quality assurance methodologies.

The above-referenced study was reviewed per the criteria for IRB approval of research published in the Code of Federal Regulations 21 CFR 56 & 45 CFR 46.

Report all events that are unanticipated problems, unanticipated events which are also adverse events, errors, and deviations from the approved protocol or events that would place the patient at greater risk than anticipated, to the IRB in writing immediately.

Any changes to this study must be submitted in writing and approved by the IRB prior to implementation of the changes.

BARNABAS HEALTH
Saint Barnabas Medical Center

JOHN F. BONAMO, MD, MS
 Executive Director
 Saint Barnabas Medical Center

INSTITUTIONAL REVIEW BOARD
IRB APPROVAL LETTER

RONALD J. DEL MAURO
 Chief Executive Officer
 Barnabas Health

BARRY H. OSTROWSKY
 President and Chief Operating Officer
 Barnabas Health

PI Name: Laura E. Gima, RN, MBA (Doctoral Student)
 Co-PI: Cindy Basile, RN, MSN, CCRN

IRB Protocol No.: 12-53

Title of Study: *"Comparing Generational Differences in Job Satisfaction and Retention among Nurses in Magnet-Designated and non-Magnet Designated Hospitals"*

Sponsor: Study not funded


Type of Review:

Full New Expedited
 Annual Renewal Modification Minor Revision Adverse Event

Approval Date: August 6, 2012 Expiration Date: August 5, 2013

The Saint Barnabas Medical Center Institutional Review Board reviewed and approved the initial application submitted for the above-mentioned study. This study is completely anonymous. No Protected Health Information is being collected.

1. The Saint Barnabas Medical Center administrative policy and procedures – (IRB policy #29 item 9) states: "Investigators are responsible for reporting all adverse events and unanticipated outcomes indicated in the content of the protocol or any other clinical research project. Investigators will report adverse events to the IRB, the study sponsor, and, if required, the appropriate regulatory agency. The Principal Investigator will report on-Site adverse events and unanticipated outcomes to the IRB within seventy-two (72) hours of the investigator becoming aware that there has been an on-site adverse event."
2. The Principal Investigator is responsible for compliance with all applicable federal regulations and Saint Barnabas Medical Center Policies and Procedures as outlined in Policy 29. The Principal Investigator shall assure that research protocols are reviewed at least annually or at least every six months, for studies involving Significant Risk Devices by the IRB, or more frequently, at the discretion of the IRB or if so required by the FDA. The Principal Investigator is required to submit a final report to the IRB Office at the completion of the study.
3. No changes are to be made to the approved protocol without the prior review and approval of the Institutional Review Board. All changes (e.g., a change in procedure, change in consent form, number of subjects, new recruitment materials, study instruments, etc) must be prospectively reviewed and approved by the IRB before they are implemented.


 Gregory Rokosz, D.O., J.D., FACFP
 IRB Chairperson

8/13/12
 Date

Laura E. Cima

August 13, 2012

Mary F. Ruzicka, Ph.D.
Professor and Director, Institutional Review Board
Seton Hall University
Presidents Hall
400 South Orange Avenue
South Orange, NJ, 07079

RE: My approval letter from Saint Barnabas Medical Center for my Dissertation Study entitled, "Comparing Generational Differences in Job Satisfaction and Retention among Nurses Working in Magnet Designated and Non-Magnet Designated Hospitals."

REF: Previously submitted IRB Amendment

Dear Dr. Ruzicka,

Enclosed, please find the letter of approval from Barnabas Health granting me IRB approval to conduct research at Saint Barnabas Medical Center.

Kindly forward me a letter of approval from the Seton Hall Institutional Review Board to permit me to proceed with conducting research in these facilities. I would be most appreciative if this could be forwarded to me at your earliest convenience.

Once again, I thank you for your continued support in assisting me to continue my dissertation research in order to fulfill the requirements of a PhD in Health Sciences Leadership.

Sincerely,

Laura E. Cima
Cc: Dr. Deborah A. DeLuca, by e-mail attachment
Joanne Deberto, SHMS, by e-mail attachment



TRINITAS REGIONAL MEDICAL CENTER
Institutional Review Board
Research Study Review Application and Signature Sheet

Protocol Title:

"Comparing Generational Differences in Job Satisfaction and Retention among Nurses Working in Magnet Designated and Non-Magnet Hospitals"

1. a. Contact Person (e.g., Investigator, Study Coordinator, Research Associate):

Name and position: Laura E. Cima
Address:



Mailing Address:
225 Williamson Street
Elizabeth, N.J. 07207
908.994.5006

December 3, 2012

Laura E. Cima, RN, MBA, NEA-BC, FACHE

Dear Ms. Cima:

I have received and reviewed your study entitled

"Dissertation: "Comparing Generational Differences in Job Satisfaction and Retention among Nurses in Magnet and Non-Magnet Designated Hospitals"

I understand that your goal is to recruit 400 to 500 subjects at Trinitas Regional Medical Center.

The purpose of your initial pilot study is two fold.

Laura E. Cima

December 13, 2012

Mary F. Ruzicka, Ph.D.
Professor and Director, Institutional Review Board
Seton Hall University
Presidents Hall
400 South Orange Avenue
South Orange, NJ, 07079

RE: My approval letter from Trinitas Regional Medical Center for my Dissertation Study entitled, "Comparing Generational Differences in Job Satisfaction and Retention among Nurses Working in Magnet Designated and Non-Magnet Designated Hospitals."

REF: Previously submitted IRB Amendment

Dear Dr. Ruzicka,

Enclosed, please find the letter of approval from Trinitas Regional Health granting me IRB approval to conduct research at this facility.

Kindly forward me a letter of approval from the Seton Hall Institutional Review Board to permit me to proceed with conducting research in these facilities. I would be most appreciative if this could be forwarded to me at your earliest convenience.

Once again, I thank you for your continued support in assisting me to continue my dissertation research in order to fulfill the requirements of a PhD in Health Sciences Leadership.

Sincerely,



Laura E. Cima
Cc: Dr. Deborah A. DeLuca, by e-mail attachment
Joanne Deberto, SHMS, by e-mail attachment

(APPENDIX D)

APPLICATION FOR APPROVAL OF A RESEARCH PROJECT
The Valley Hospital Institutional Review Board (IRB) for the
Protection of Human Subjects Participating in Research

Instructions to PI's: *Sections I, II, and III must be completed.* Complete either A, B or C as appropriate to your project. The IRB Office will be pleased to provide any assistance.

I. Investigator Laura E. Cima Dept. or Address _____
 Co-Investigator(s) Not applicable _____
 Telephone Extension _____
 Fax #: _____ Title of
 Protocol: Understanding Nursing Generational Differences in Job Satisfaction in Magnet
 Designated and Non-Magnet Designated Hospitals
 Sponsor Seton Hall University

REVIEW OF DEPARTMENT/DIRECTOR

II. I have reviewed and approved this protocol for scientific validity and clinical appropriateness at the Hospital.

Chairman or Director of Independent Division/Signature _____

[] A. RESEARCH PRESENTING POSSIBLE RISK TO SUBJECTS: e.g., drug and medical device trials, surgical and other invasive procedures, placebo controls, etc. Please check & submit:

- [X] 1. One (1) copy of the complete protocol – **(Please double side)**
 [X] 2. One (1) copy of a lay summary of the project – i.e. an explanation of the study in non-medical terminology not to exceed two pages
 [X] 3. One (1) copy of a properly executed consent form in simple, non-medical terminology
 [X] 4. One (1) copy of "Utilization of Resources Pharmacy/Nursing/Pathology/Diagnostic Imaging" form
 [X] 5. One (1) copy of FDA form 1572
 [X] 6. One (1) copy of assent form, if applicable

Funding Source (Please check one): EXTERNAL [] INTERNAL [] NONE []
Please include budget and clinical trial agreement/contract if applicable

[] B. RESEARCH PRESENTING MINIMAL RISK TO SUBJECTS: In order for your study to be categorized as a "minimal risk" project, it must fall into one or more of the following areas. Please indicate the category:

- [N/A] 1. Collection of hair and nail clipping, excreta and external secretions, uncannulated saliva, placenta removed at delivery, amniotic fluid at the time of rupture of the membrane, deciduous teeth, and permanent teeth if patient care indicates a need for extraction. Collection of dental plaque and calculus done in a non-invasive manner performed according to standard prophylactic techniques.
- [N/A] 2. Collection of blood samples by venipuncture, in amounts exceeding 450 milliliters in an eight-week period, and no more often than twice a week, from subjects in good health, and not pregnant.
- [N/A] 3. Recording of data from subjects using non-invasive procedures routinely employed in clinical practice (e.g., weighing, testing sensory acuity, electrocardiography, electroencephalography, thermography – NOT X-RAYS OR MICROWAVES;
- [N/A] 4. Moderate exercise by healthy volunteers.
- [N/A] 5. Voice recordings made for research purposes.
- [N/A] 6. Research on behavior: perception studies []; cognition []; game theory []; test development []; where the investigator does not manipulate subjects' behavior and the research will not involve stress to subject.

[] **Attach one (1) copy of the complete protocol, consent form and a summary in non-medical terminology.**

MEMO

TO: Nursing Research Council Steering Committee

FROM: David Montgomery, MD – Chairperson, Institutional Review Board

DATE: June 8, 2012

RE: Comparing Generational Differences in Job Satisfaction and Retention among Nurses in Magnet versus Non-Magnet Designated Hospitals

PI: Laura Cima, RN

Thank you for submitting the above referenced study for review. We appreciate this opportunity; however it does not require The Valley Hospital IRB approval.

■ ■ BARNABAS HEALTH
■ ■ Newark Beth Israel Medical Center

***New Research Study Application
and Signature Sheet***

Children's Hospital of New Jersey

Institutional Review Board

IRB # (To be assigned by IRB Office) _____

Protocol Title: Understanding Generational Differences in Job Satisfaction and Retention of Nurses Working in Magnet and Non-Magnet Designated Hospitals.

Principal Investigator:

Department or Division: Nursing

Co-Investigators:

1. Contact Person (e.g., Investigator, Study Coordinator, Research Associate):

Name and position: Laura E. Cima

Address: _____

Telephone Number: _____ **E-mail:** _____

2. Anticipated duration of study: 6 months

3. Sponsorship:

A. How will the proposed research be funded?

- Internal department funds
- Corporate sponsor/private foundation (identify: _____)
- Federal grant (identify: _____)
- Cooperative clinical trial (identify: _____)
- Non-funded research

B. Are any components of this project Public Health Service (PHS) Funded?

- Yes (Provide Source: _____)
- No

4. Has this study been disapproved by any other IRB? Yes No

If Yes why? _____

5. Subject Population

A. Number of subjects anticipated at NBIMC: 300

B. Total number of study subjects anticipated (all sites): 2400

C. Age ranges (check all that apply):

BARNABAS HEALTH
Newark Beth Israel Medical Center

Children's Hospital of New Jersey

JOHN A. BRENNAN, MD, MPH
 Executive Director
 Newark Beth Israel Medical Center
 Children's Hospital of New Jersey

BARRY H. OSTROWSKY
 President and Chief Executive Officer
 Barnabas Health

Date: June 20, 2013

IRB Approval

To: Susan Hernandez, MSN, RN
 Nursing Administration

Re: IRB #2013.08
 Comparing Generational Differences in Retention and Job Satisfaction Among
 Nurses Working in Magnet Designated and non-Magnet Designated Hospitals

Dear Ms. Hernandez:

The above mentioned protocol (2013.08) was reviewed by the NBIMC Institutional Review Board on June 20, 2013 and expedited approval was granted. Concurrently, the HIPAA waiver was also granted. Research activities may now be initiated.

Please take note of the following:

Expiration date: **June 19, 2014.**

A request for extension must be completed at least 30 days prior to the above expiration date.

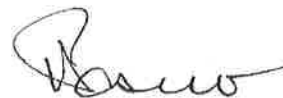
Amendments

Any changes in study procedures, subject population, recruitment or the consent process must be submitted for IRB approval **prior** to implementation.

Serious Adverse Events

- a. Any fatalities or life threatening adverse events related or possibly related to the research, occurring in an NBIMC subject must be reported to the IRB within 24 hours.
- b. Non-fatal or non-life threatening serious adverse events occurring in a NBIMC subject must be reported to the IRB within ten (10) working days.
- c. Non-NBIMC reports (ex. sponsor safety sheets) must be submitted to the IRB office within thirty (30) days of receipt.

Thank you for your cooperation.



Victor Parsonnet, MD
 Chair, Institutional Review Board

MEMO

TO: Nursing Research Council Steering Committee

FROM: David Montgomery, MD – Chairperson, Institutional Review Board

DATE: June 8, 2012

RE: Comparing Generational Differences in Job Satisfaction and Retention among Nurses in Magnet versus Non-Magnet Designated Hospitals

PI: Laura Cima, RN

Thank you for submitting the above referenced study for review. We appreciate this opportunity; however it does not require The Valley Hospital IRB approval.

BARNABAS HEALTH
Newark Beth Israel Medical Center

***New Research Study Application
and Signature Sheet***

Children's Hospital of New Jersey

Institutional Review Board

IRB # (To be assigned by IRB Office) _____

Protocol Title: Understanding Generational Differences in Job Satisfaction and Retention of Nurses Working in Magnet and Non-Magnet Designated Hospitals.

Principal Investigator:

Department or Division: Nursing

Co-Investigators:

1. Contact Person (e.g., Investigator, Study Coordinator, Research Associate):

Name and position: Laura E. Cima

Address: _____

Telephone Number: _____ **E-mail:** _____

2. Anticipated duration of study: 6 months

3. Sponsorship:

A. How will the proposed research be funded?

- Internal department funds
- Corporate sponsor/private foundation (identify: _____)
- Federal grant (identify: _____)
- Cooperative clinical trial (identify: _____)
- Non-funded research

B. Are any components of this project Public Health Service (PHS) Funded?

- Yes (Provide Source: _____)
- No

4. Has this study been disapproved by any other IRB? Yes No

If Yes why? _____

5. Subject Population

A. Number of subjects anticipated at NBIMC: 300

B. Total number of study subjects anticipated (all sites): 2400

C. Age ranges (check all that apply):

BARNABAS HEALTH
Newark Beth Israel Medical Center

Children's Hospital of New Jersey

JOHN A. BRENNAN, MD, MPH
 Executive Director
 Newark Beth Israel Medical Center
 Children's Hospital of New Jersey

BARRY H. OSTROWSKY
 President and Chief Executive Officer
 Barnabas Health

Date: June 20, 2013

IRB Approval

To: Susan Hernandez, MSN, RN
 Nursing Administration

Re: IRB #2013.08
 Comparing Generational Differences in Retention and Job Satisfaction Among
 Nurses Working in Magnet Designated and non-Magnet Designated Hospitals

Dear Ms. Hernandez:

The above mentioned protocol (2013.08) was reviewed by the NBIMC Institutional Review Board on June 20, 2013 and expedited approval was granted. Concurrently, the HIPAA waiver was also granted. Research activities may now be initiated.

Please take note of the following:

Expiration date: **June 19, 2014.**

A request for extension must be completed at least 30 days prior to the above expiration date.

Amendments

Any changes in study procedures, subject population, recruitment or the consent process must be submitted for IRB approval **prior** to implementation.

Serious Adverse Events

- a. Any fatalities or life threatening adverse events related or possibly related to the research, occurring in an NBIMC subject must be reported to the IRB within 24 hours.
- b. Non-fatal or non-life threatening serious adverse events occurring in a NBIMC subject must be reported to the IRB within ten (10) working days.
- c. Non-NBIMC reports (ex. sponsor safety sheets) must be submitted to the IRB office within thirty (30) days of receipt.

Thank you for your cooperation.



Victor Parsonnet, MD
 Chair, Institutional Review Board

Appendix K

- K-1: 2nd Research Amendment Request**
- K-2: Approval Letter from Institutional Review Board**

For the full IRB application and/or any questions or
further information regarding the application
please contact the PI at LauraE228@aol.com

Laura E. Cima

March 11, 2013

Mary F Ruzicka, Ph.D.
Office of the IRB, President's Hall
Seton Hall University
400 South Orange Avenue
South Orange, NJ, 07079

Dear Dr. Ruzicka,

Attached please find a copy of my approved IRB application corresponding to my research study entitled "*Comparing Generational Difference in Job Satisfaction and Retention among Nurse in Magnet Designated Hospitals and Non-Magnet Designated Hospitals*", approved by the Seton Hall University Institutional Review Board in June of 2012.

I have been conducting this study in five hospitals for several months:

The Valley Hospital – Paramus, NJ
Morristown Memorial Hospital (Atlantic Health), Morristown, NJ
Overlook Hospital (Atlantic Health), Summit, NJ
Trinitas Regional Medical Center, Elizabeth, NJ
St. Barnabas Medical Center, Livingston, NJ

I received IRB approval from these facilities and subsequently, your approval. I also have IRB applications pending at two additional facilities, Jersey Shore University Medical Center (Meridian Health) and Newark Beth Israel Medical Center (St. Barnabas Health System). I have also had a number of hospitals refuse to participate in the study

My original intention was to have a total sample of 1,875 to 2,500 participants. However, given the current number of participants of 173 (473 with the pilot sample) between five hospitals, I am no longer confident that even with the two additional hospitals; I could come close to achieving the number proposed. Please note as well that I have had numerous discussions with representatives with these hospitals with no improvement in participation. In fact, one hospital requested exclusively paper copies of

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surveys to which I responded by providing 300 copies, and to date, I have not had one participant.

Therefore, I am requesting an amendment to the study in an effort to increase participation. Specifically, I would like to add to the participant recruitment process, a "snow ball" or "chain referral" technique. I will identify a few participants who meet selection criteria and ask each to participate in the survey. In the second phase, these individuals will be asked to identify others who have the requisite characteristics as described in the study and encourage them to participate in the study as well. Using this method in addition to the current hospitals participating through IRB approval, I am hopeful that I can achieve a much more robust sample.

All amendments to the initial approved study are highlighted in yellow. Additionally, I have provided an overview of the changes below.

General Amendments:

The proposed changes, listed in detail below are being requested in order to increase the number of participants for the dissertation project. Amendments/modifications are being made to several areas which are explained in detail below:

1. Table of Contents has been changed to reflect the correct page numbers in the proposal and to add the Training Script for the Snowball Technique.

Rationale: The rationale is to reflect the corrected information.

2. Place of employment has changed because I am no longer with Hackensack University Medical Center but now employed by HackensackUMC at Pascack Valley, 250 Old Hook Road, Westwood, NJ, 07675. My work phone number has also changed. This change took place on August 20, 2012. My title has also changed from Vice President, Operations to Vice President/Chief Nursing Officer.

Rationale: To reflect accurate information.

3. The timeframe of the dissertation has changed from July, 2012 to December, 2012 to July, 2012 to June, 2013.

Rationale: To allow for obtaining a more robust number of participants.

4. I have added that Ms. Claudia Douglas, MSN, RN has agreed to act as a Research Assistant for the dissertation project. She had assisted me with the pilot study and

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is well versed in the project. She will be the contact person if participants request a paper copy of the study.

Rationale: A Research Assistant will be used to protect the anonymity of the participants if they request a paper copy of the surveys.

5. I have revised my response to the question regarding a supervisory relationship with the subjects. In my previous role, that was the case as I was the Vice President for Clinical Operations at Hackensack University Medical Center. Since I have taken this new position, that supervisory role no longer applies.

Rationale: Provide corrected information because I have taken a new position.

6. I have included an explanation of the snowball technique as a secondary approach to recruitment of participants.

Rationale: This additional approach is being requested to increase the number of participants.

7. I have added Newark Beth Israel Medical Center to the list of participating hospitals. This is a non-Magnet designated facility and would be one of the eight hospitals proposed in my originally approved study.

Rationale: The addition of this hospital completes the eight hospitals planned in the originally approved studies. Several non-Magnet designated hospitals refused to participate in the study or did not respond to the inquiry. Newark Beth Israel Medical Center agreed to participate. Even though they are under the Barnabas Health System and the research project was originally approved by their IRB, they have a separate IRB. I am awaiting a response to my application.

8. I have explained that the Letter of Solicitation has been changed (to use the snowball technique) to add the ASSET® system website for the study and to request that those that may have participated prior, do not participate again in the study.

Rationale: Those participants in the first phase will be approaching other participants. They need to provide a Letter of Solicitation that reflects the purpose of the study, the fact that the study is anonymous and the web site by which to access the study.

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9. I have added Appendix N which is a training script for the participants in the first phase of the snowball technique because they will be approaching others to participate in the study

Rationale: They need to have accurate information in order to approach other individuals. They also need to be aware of the inclusion and exclusion criteria for the study.

I have also created a grid of the changes with the page numbers to assist you in your review

Approved June, 2012	Requested Change	Page	Rationale
Table of Contents	Corrected page numbers, added Appendix N: Training Scrip, Snowball Technique	Page 2	Corrected due to changes in the body of the application
Place of Employment: Hackensack University Medical Center	HackensackUMC at Pascack Valley	Page 6, question 3	Employment has changed.
Vice President, Clinical Operations, 201-996-2129	Vice President/Chief Nursing Officer, 201-383-1075	Page 6, question 4	Employment has changed as of August 20, 2012.
Anticipated starting and completion dates: June, 2012 to December, 2012	June, 2012 – June, 2013	Page 6, 7, question 9	Would like to have more participants
Added information about the RA for snowball technique	Claudia Douglas, RN, MSN has agreed to act as the RA for the snowball technique	Page 27	Mechanism to provide paper copies or surveys if someone requests them.
Supervisory relationship to Participants: Yes	Changed to "No"	Page 27, question 16	Change of employment
Recruitment of Subjects by E-mail	Added the snowball technique	Page 30, 31	Added as a mechanism to

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Approved June, 2012	Requested Change	Page	Rationale
Where will research be conducted?	Added Newark Beth Israel Medical Center as one of the eight hospitals.	31, question 20	A non-Magnet designated hospital that agreed to participate where others would not.
Snowball technique not addressed.	Further explanation of the role of the RN using the snowball technique	Page 35, 36	Further explanation of the sampling process, including the snowball technique..
Appendix N, Checklist for Principal Investigator	Change to Appendix N in the sampling process; Checklist for Principal Investigator changed to Appendix O	Page 35, 36	Appendix N is a training script for the first stage participants (initial contacts)
Letter of Solicitation: specific hospital mentioned	Changed to read: "Staff nurse working in an acute care hospital."	Page, 73, Appendix L	Using the snowball technique, nurse participants may be from any hospital in New Jersey,
Letter of Solicitation	Web site for the Seton Hall ASSET® system added. Also added sign-on information as well as requesting participants not to do the survey if they have responded prior to the survey	Page, 75, Appendix L	Stage one participants (initial contacts) will provide their contacts with Letter of Solicitation. Participants need to know how to access the survey. Also, I do not want duplicate information as it compromises the

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			results.
Approved June, 2012	Requested Change	Page	Rationale
Appendix N: Checklist for Principal Investigator	Appendix N: Training Script, First Stage, Snowball Technique	Page 78, Appendix N	A training script is necessary for the first stage participants (initial contacts) for the snowball technique

I trust this information will serve to fully explain any amendments to the dissertation project. Should you need any further clarification, please do not hesitate to contact me.

Once again I would like to express my gratitude for your continued support to my dissertation project.

Yours truly,



Laura E. Cima

CC: Dr. Deborah A. DeLuca, MS, JD, Chair



July 8, 2013

Laura Cima

Dear Ms. Cima,

The IRB hereby approves the requested amendment to your research protocol, "Comparing Generational Differences in Job Satisfaction and Retention Among Nurses in Magnet Designated and Non-Magnet Designated Hospitals" to:

- add Newark Beth Israel Medical Center as an additional performance site.

Sincerely,

Mary F. Ruzicka, Ph.D.
Professor
Director, Institutional Review Board

cc: Dr. Deborah DeLuca

Please review Seton Hall University IRB's Policies and Procedures on website (<http://www.provost.shu.edu/IRB>) for more information. Please note the following requirements:

Adverse Reactions: If any untoward incidents or adverse reactions should develop as a result of this study, you are required to immediately notify in writing the Seton Hall University IRB Director, your sponsor and any federal regulatory institutions which may oversee this research, such as the OHRP or the FDA. If the problem is serious, approval may be withdrawn pending further review by the IRB.

Amendments: If you wish to change any aspect of this study, please communicate your request in writing (with revised copies of the protocol and/or informed consent where applicable and the Amendment Form) to the IRB Director. The new procedures cannot be initiated until you receive IRB approval.

Completion of Study: Please notify Seton Hall University's IRB Director in writing as soon as the research has been completed, along with any results obtained.

Non-Compliance: Any issue of non-compliance to regulations will be reported to Seton Hall University's IRB Director, your sponsor and any federal regulatory institutions which may oversee this research, such as the OHRP or the FDA. If the problem is serious, approval may be withdrawn pending further review by the IRB.

Renewal: It is the principal investigator's responsibility to maintain IRB approval. A Continuing Review Form will be mailed to you prior to your initial approval anniversary date. **Note:** No research may be conducted (except to prevent immediate hazards to subjects), no data collected, nor any subjects enrolled after the expiration date.

In harmony with federal regulations, none of the investigators or research staff involved in the study took part in the final discussion and the vote.

Office of Institutional Review Board

Presidents Hall • 400 South Orange Avenue • South Orange, New Jersey 07079 • Tel: 973.313.6314 • Fax: 973.275.2361 • www.shu.edu

Appendix L

- L-1: Request from PI to use the New Jersey State Nurses Association Mailing List**
- L-2: Approval from Seton Hall University Institutional Review Board to use the New Jersey State Nurses Association Mailing List**

From: LauraE228@aol.com [mailto:LauraE228@aol.com]
Sent: Wednesday, July 10, 2013 9:12 PM
To: Mary F Ruzicka
Subject: Fwd: FW: Research

Dear Dr. Ruzicka,

Please note the e-mail information below which comes from the CEO of the New Jersey State Nurses Association. This was her response to my inquiry regarding purchasing a mailing list or posting the survey research information on their list serv.

Will this adequately serve as permission to conduct the research through the New Jersey Nurses Association?

Please advise if this is acceptable.

Permission from the Seton Hall Institutional Review Board Chair to Use the
New Jersey State Nurses' Association Mailing List

Subj: Fwd: FW: Research
Date: 7/11/2013 7:48:45 P.M. US Eastern Standard Time
From: LauraE228@aol.com
To: Derbyboo@hotmail.com, Terrence.Cahill@shu.edu, raju.parasher@shu.edu

Response from Dr. Mary Ruzicka

From: Mary.Ruzicka@shu.edu
To: LauraE228@aol.com
Sent: 7/11/2013 9:26:57 A.M. Eastern Daylight Time
Subj: RE: FW: Research

Dear Laura,

Yes, the email below is fine for permission from the nurses' association.

As soon as you get permission from your dissertation committee to add this "site", forward it all to me and the IRB office will approve it. The IRB office is closed for the month of August, so you can plan around that timeline.

Sincerely,

Mary F. Ruzicka, Ph.D.

Professor

Director, Institutional Review Board

Seton Hall University

973-313-6314