Nurse Retention Program: Improving Nurse Retention in a Home Health Care Organization

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In partial fulfillment of the requirements for the

Doctor of Nursing Practice

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Date of Submission: January 29, 2019

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Abstract

The purpose of this project was to implement an evidence-based Nursing Retention Program (NRP) at the project site which is a Home Healthcare Agency and evaluate its effectiveness in efforts to improve nurse retention, job satisfaction, and intent to stay. This project utilized a quality improvement design guided by Lewin's Change Theory to examine nurses' job satisfaction with their work environment, salary and benefits, and autonomy and control of work schedules and hours. Survey data was obtained pre and post-implementation of the NRP. Thirty-four home healthcare nurse job satisfaction self-report data were collected with the Home Health Care Nurses' Job Satisfaction Scale (HHNJS) survey questionnaire pre and post NRP implementation. Data analysis were conducted using the Wilcoxon Signed Rank test and paired-samples t-test. The implementation of NRP improved nurses' job satisfaction with work environment, salary and benefits, and autonomy and control of work hours. The implementation of NRP improved nursing job satisfaction scores at host site. This evidencebased NRP will assist the practice site in improving employee job satisfaction and intent to stay through enhancing nurse work environment, improving nurses' salary and benefits, and promoting professional autonomy. Findings from this project can be used to guide home health care agencies to further explore interventions improving retention and intent to stay.

Nurse Retention Program: Improving Nurse Retention in a Home Health Care Organization

Many healthcare organizations are experiencing nursing shortages. Similar to other healthcare settings, the recruitment and retention of qualified nurses remains a priority in home health care agencies. Nursing staff turnover is costly as it decreases the organization's productivity and the quality of patient care. According to the 2016 National Healthcare Retention and RN Staffing Report, on average it costs a healthcare institution from \$37,000 to \$58,400 per every nurse turnover (Fisher, Jabara, Poudrier, Williams, and Wallen, 2016). Besides costs, nurse turnover may negatively impact staff morale and patient health outcomes. Hospitals and home health care organizations in the United States and the world have utilized numerous strategies to attract and retain nurses. Nonetheless, retention success in home health care has not been well documented. Home health care organizations are investing efforts in increasing job satisfaction to improve nurse retention. However, only a small number have succeeded in retaining nurses through the implementation of an evidence-based retention intervention. They have emphasized creating a shared-governance work environment, offering autonomy and control of work hours, and providing better salary and benefits (Ellenbecker, 2007).

Background

Since the inception of the Medicare home health care program, the demand for home health care nursing professionals has dramatically increased (McCall et al., 2001). As technological advances allow individuals to receive complex care in their homes, the demand for nurses in home health care will continue to increase. According to the 2016 National Healthcare & RN Retention Report, the national nursing turnover rate is 17.1 percent. This number was previously 16.4 percent in 2014 (Fisher et al., 2016). Many factors influence job satisfaction, which in turn directly contribute to nurse turnover and retention. Job satisfaction is identified as

the strongest predictor of nurse intent to stay and retention (Ellenbecker, 2003). The more satisfied nurses are with the jobs, the more likely nurses will stay in those jobs. Factors such as salary and benefits, shared-governance, and autonomy and flexibility of scheduling in home health care are associated with job satisfaction. Health care organizations, including home health care, strive to address the issues surrounding nursing turnover. The host site develops a work environment that promotes shared-decision making, grants nurses the autonomy to control work schedules, and offers highly competitive salary and benefits. Evidence from research conducted in home care indicates that nurses' job satisfaction is predicted by relationships with the organization, degree of autonomy and flexibility in scheduling work and work activities, and adequacy of salary and benefits (Ellenbecker, 2004). Home care organizations have utilized evidence-based interventions as a guide to improve job satisfaction. The only retention intervention that made a statistically significance in nurses' job satisfaction was sharedgovernance (Ellenbecker et al., 2006). Studies have demonstrated that autonomy and flexibility of scheduling work have a moderate impact on job satisfaction and nurse retention (Ellenbecker, 2003). Wages are another variable that have been found to influence nurse retention. According to Banijamali (2014), the organization may lose nurses if nurses are presented better job opportunities with higher salary and benefits.

Significance

Nursing shortages have been reported in the home health care industry (Weaver et al., 2018). Due to technological advancement and the growing number of aging population, the demand for home health care nurses is expected to increase (Knickman and Snell, 2002). Consumers prefer to receive care in their home. If nurse retention continues to decrease, the current problem with nursing shortages across the country will worsen. Nurse retention is

predicted by nurses' job satisfaction (Buffington, Zwink, Fink, DeVine, and Sanders, 2012). As the nurse turnover increases, healthcare organizations fear that nurse shortages and job dissatisfaction will have a negative impact on access to services and the quality of patient care (Ellenbecker and Cushman, 2001). It is necessary for home health care organizations to implement a nurse retention program to achieve optimal staff job satisfaction.

According Kooler and Kamikawa (2010), improving nurse retention and reducing turnover rates improved patient outcomes as well as had significant financial benefits for the healthcare organization. Nurse turnover is costly. The healthcare organizations spend an enormous amount of money on advertisement, recruitment, orientation and training (Jones, 2007). In addition, the process of hiring can be lengthy, sometimes taking up to several months. Work productivity is decreased when nurses intend to leave due to job dissatisfaction (McHugh and Ma, 2014). There is a growing need for home health care organizations to implement a retention initiative to increase job satisfaction to lower nurse turnover. Organizations with positive work environments have lower nurse turnover and higher retention rates (Twigg and McCullough, 2014).

Problem Statement

As the need for home health care nurses increases due to the growing population of elderly people, retaining experienced and qualified nursing staff becomes an important concern. Nurses in home health care agencies experience high levels stress as nursing shortage continues. It is important to retain existing nursing staff to ensure a sustainable home care workforce for the future (Maurits et al., 2015). Nurses' intention to leave is strongly associated with dissatisfaction with the work environment. The project site expressed concerns with high organizational cost of nursing turnover. Factors that were identified by this site as contributors to nursing turnover

included wages, autonomy in practice, control of work schedules, and work environment. These determinants were supported by the literature as well. An evidence-based home care nurse retention program would ameliorate the issues with nurse retention and turnover through the implementation of effective strategies that promote shared-governance within the organization, ensure autonomy, and provide better salary and benefits to attain job satisfaction.

Purpose Statement

The purpose of this project was to implement a Nursing Retention Program (NRP) at the project site which is a Home Health Agency located in the heart of Las Vegas, Nevada. The ultimate aim of this project was to implement and evaluate this evidence-based NRP and improve nurse retention, job satisfaction, and intent to stay at the host site. This NRP would incorporate retention strategies which include improving job satisfaction, promoting autonomy in nursing practice and over work schedules, and offering nursing staff highly a competitive salary and benefits package.

Project Question

Does the implementation of an evidence-based NRP improve nurse retention, job satisfaction, and intent to stay?

Objectives

The DNP Student completed the following in the timeframe of the DNP Project:

Within a three month period, the student utilized literature review and project site
assessment to identify the factors that contribute to nurse retention, job satisfaction, and
intent to stay.

- Within a three month period, the student examined the project site's current situation with regard to nurse retention, job satisfaction, and intent to stay through the use of a validated and reliable tool.
- Within a three month period, the student implemented an evidence-based NRP at the project site.

Search Terms

The PICOT question was utilized to conduct a literature search. The population of interest was home health care nurses, the intervention was evidence-based NRP implementation, the comparison was nurse retention rates before and after NRP implementation, the outcome was nurse job satisfaction and intent to stay, and the time it took for the intervention to achieve an outcome was three months. Literature review was initially limited to research studies completed primarily in the U.S. within the last five years. Due to an insufficient number of research studies investigating home health care nurse retention and job satisfaction, the search was extended beyond five years. Search terms included home health care, home care nurses, nurse retention program, nurse retention interventions, nurse burnout, nurse turnover, nurse job satisfaction, job dissatisfaction, nurse autonomy, intent to stay, and nurse work environments. Search engines used during database search included PubMed, MEDLINE, and CINAHL. Upon searching the key terms, more than twenty results returned. Specifically, 'nurse job satisfaction' had twentytwo results generated while 'nurse work environment' produced twelve and 'nurse retention' yielded eighteen. Based on literature review, nurse retention programs in home health care had not been developed. However, there have been effective interventions implemented to improve nurse retention such as creating a positive work environment, salary and benefits, and assuring the autonomy to schedule work hours to increase nurse job satisfaction.

Similar search terms were examined using practice site intranet. There were zero results returned. The home health care organization did not have any nurse retention program or guidelines implemented. The practice site recruited new graduate nurses, however, it did not have retention programs in place to retain existing nurses.

Literature Review

Nurse retention has become a challenging issue for many healthcare organizations, including home health care. McHugh and Ma (2014) discovered that wage was associated with job dissatisfaction and intent to leave. Li, Canham, and Wahl (2016) examined how the work environment can be a predictor for job satisfaction. Studies have reported that positive work environments improve nurse retention and healthcare organizations with positive practice environments have lower turnover and higher retention rates of nurses (Twigg and McCullough, 2014). In a systematic review of literature, Halter et al (2017) examined the literature published in English between 1900 and 2015 to understand which interventions are effective in reducing nurse turnover rates. Multiple variables influence nurse retention, including salary and benefits, autonomy, and work environments. Previous studies have also examined the relationships between job satisfaction and nurse retention. According to Asegid, Belachew, and Yimam (2014), the final predictors of overall satisfaction were autonomy, work environment, and wages. By improving nurse salary and benefits, enhancing nurse practice environments, and allowing nurses the autonomy to practice and schedule work hours, healthcare organizations can improve job satisfaction, decrease nurse turnover, and increase retention rates (Cushman et al., 2001; Shader et al., 2001; McHugh and Ma, 2014).

Salary and benefits

One intervention to address nurse shortage and solve retention problems is to increase wages (Spetz and Given, 2003). A satisfactory wage is a significant factor in job-seeking behavior and is especially important in keeping workers satisfied in their current positions (McHugh and Ma, 2014). Wages have a significant effect on job satisfaction and nurse retention. In some studies, dissatisfaction with wage played the biggest role in nurse turnover (Klopper, Coetzee, Pretorius, and Bester, 2012; Palmer, 2014). Studies have found that competitive wages coupled with good benefits may be necessary for home health care organizations to recruit nurses to fulfill the ongoing home care demands (McHugh and Ma, 2014). Previous studies have investigated the connection between pay satisfaction, job satisfaction, and nurse turnover intent. Results indicated pay satisfaction influence job satisfaction and turnover intent. Staff dissatisfaction with salary and benefits can affect job performance and decrease commitment to the job and causes nurse turnover (Singh and Loncar, 2010).

In Tai, Bame, and Robinson's review of nursing turnover research (1998), four of six studies about nurse retention indicated that retention decreased as job opportunities elsewhere increased. According to Jarrin et al. (2014), home health nurses work more hours than nurses in any other setting and are often paid on a salary basis. Even when home health nurses are paid on an hourly basis, working uncompensated overtime to complete documentation is quite common. Home health care organizations can ensure nurses competitive salary and benefits by paying overtime, vacation, holiday, sick, lunch, and offering bonuses and other paid-time-off hours (McHugh and Ma, 2014).

Work environment

In home health care, a good work environment is necessary to retain qualified nurses (Jarrin et al., 2014). Providing nurses with a positive work environment and supportive management are important variables that influence the decision to stay in the organization. A positive work environment has shared-governance, a process that promotes shared-decision making, collaboration, and accountability through workforce recognition and empowerment. Shared governance is described by nurses as a feeling of fairness, support and a sense of control nurses from institutions (Ellenbecker, 2004). The more participatory the management style, the more satisfied nurses are with the jobs and this translates into better retention. Working for an organization that is supportive, combined with a professional atmosphere, contributes to nurses' job satisfaction and nurses' decision to stay with the current positions. Studies have reported that shared governance is related to empowerment. Nurses in an organization with few opportunities for professional autonomy, lack of shared governance, felt disempowered by the lack of influence over practice (Hastings, Armitage, Mallinson, Jackson, and Suter, 2014). Ellenbecker et al. (2007) discovered that shared governance was the only retention intervention employed by home health care agencies that made a statistically significant difference in job satisfaction. Job dissatisfaction occurs as a result of the lack of shared governance. Organizations promote shared governance by encouraging nurses to participate in the development organizational culture, policies and procedures, and the decision-making process.

Autonomy and control of work hours

One of the determinants that may be expected to influence job satisfaction is the degree of perceived autonomy that nurses enjoy in the way they do their job (Asegid, Belachew, and Yimam, 2014). A primary characteristic of nurses who are successful in home health care is the

ability and willingness to adapt and move toward professional autonomy (Neal, 2000). Nurses who were more satisfied with their job had greater autonomy and control over the practice setting (Twigg and McCullough, 2014). The job demand – control model developed by Robert Karasek (1979) emphasizes the balance of job requirements and autonomy. According to this model, nurses who encounter high demands at work with little control are more likely to experience burnout. Home health care nurses who experience a high degree of work stress and a low degree of autonomy have an increased risk of stress that results in burnout and turnover intention. The organization can ensure utilize this model to ensure staff autonomy to improve job satisfaction and retention.

Nurses with the autonomy to schedule their own work hours report higher levels of job satisfaction. Autonomy allows for work-life balance and has a profound effect on job satisfaction and retention. Nurses are less likely to leave the jobs when they have the ability to control work hours and schedules. Autonomy and control of work activities contribute to job satisfaction in home health care nurses (Ellenbecker, 2004). Nurses have the freedom to decide what services to provide and when the deadline is. Autonomous health care nursing staff are more engaged in the work and less likely to consider leaving the home care organization (Maurits et al., 2015). Nurses with control over patient care decisions and the practice have an increased sense of job satisfaction. By developing strategies that enhance nurses' autonomy, organizations are more likely to improve nursing staff job satisfaction and retain nurses. Studies have found that control over nursing practice and nursing autonomy empower nurses and motivate the job satisfaction and retention (McLure, 2004).

What is currently understood. The relationship between autonomy and nurse retention has been examined. Healthcare organizations, including in the home health care sector, are

identifying and implementing evidence-based interventions to improve job satisfaction and nurse retention. The strategies to strengthen retention rates include creating a favorable work environment that promotes shared governance, increasing salary and benefits, and providing nurses autonomy. Improvement in job satisfaction through the establishment of shared-governance, autonomy, and satisfactory salary and benefits contribute to increased nurse retention. Most studies of job factors that are associated with turnover in nursing have been limited to hospital nurses and previous studies have described autonomy as an antecedent of nurses' work engagement (Maurits et al., 2015). Home health care nurses are satisfied with the autonomous role.

Issues still under investigation. While the results from previous research studies indicate a positive relationship between group cohesion and retention, not enough research has been conducted to investigate its relationship to nurse retention in home health care. In addition, the nurses' gender, age, educational level, sociocultural backgrounds, and past experiences relating to retention rates are still being investigated. Some studies have documented that nurses' age and educational level significantly influence job satisfaction (Abdullah Al Maqbali, 2015). Older and experienced nurses are more likely to be satisfied with the current job (Abdullah Al Maqbali, 2015).

Issues that have not been addressed. Future studies need to examine nurses' work ethics, regardless of age, education, or prior experiences. It is important to assess personal characteristics since there can be countless of factors that may influence job satisfaction. Furthermore, the nurses' relationships with colleagues, patients, and administrators play a significant role in nurse retention. Researchers should address these components. The level of

job satisfaction among home health care nurses may be higher when they receive support from peers.

Controversies. The relative impact of wage on nurse retention may vary in different countries (McHugh and Ma, 2014). Interventions that improve the work environment may be more important than wages. Simmons et al. (2001) compared the work attitudes of home health care and hospital nurses and reported that home health care nurses have less anger and frustration than hospital nurses. Job stress influences job satisfaction by affecting intent to stay. Gender differences affect job satisfaction. Generally, male nurses are less satisfied with the job (Abdullah Al Maqbali, 2015). Discrepancies exist in research. Some studies suggested that less experienced nurses are more satisfied with themselves and some reported that more experienced nurses are more likely to be satisfied (Abdullah Al Magbali, 2015). The level of job satisfaction also decreases in younger generation of nurses. Younger nurses are less satisfied with the job due to less experience and education. While studies have indicated that individual nurse characteristics (i.e. age, experience, marital status, marital status, education, and gender) affect nurse retention, what is known comes from investigation in hospital settings and no studies have been conducted concerning the effects of individual nurse characteristics for nurses working in home health care settings (Ellenbecker et al., 2008).

Current management. To address nursing shortage, the practice organization recruits new graduate nurses to join the home health care agency. Although the organization provides new graduate nurses an opportunity to choose their own patient assignment, some require additional support. Despite organizational support, the nurse retention rate remains low. The organization conducts field staff meeting quarterly to address concerns. Evidence-based home health care nursing retention program will improve job satisfaction and reduce nurse turnover.

Nurses are less likely to leave the job if the healthcare organizations provide them a favorable work environment, promote autonomy, and offer competitive salaries. Nurses' job satisfaction with higher retention rates produce quality care and improved patient outcomes. Factors of shared governance, autonomy, and competitive pay play a role in nursing retention.

Theoretical Model

Historical development

Imogene King is the founder of the Theory of Goal Attainment. The theory was developed in the early 1960s and published in 1971 when the founder created her own theoretical framework after gathering information from a review of the published works at the time, through discussions with her colleagues, and attending professional conferences. Imogene King states that the goal of a nurse is to help patients maintain their health so they can function on their own. Nurses are responsible for promoting, maintaining, restoring health, and caring for the sick, injured and dying. The Theory of Goal Attainment is relevant to the profession of nursing based on the application of its major tenets to current nursing practice.

Major tenets

The Theory of Goal Attainment has three interacting systems: the individual or personal system, the group or interpersonal system, and the society or social system. Each system has its own unique concepts. Within the individual or personal system, the attainments of goals are influenced by several factors including perception, self, growth and development, body image, personal space, and time. For the group or interpersonal system, the concepts associated are interaction, communication, transaction, role, and stress. Finally, major concepts involved in the social system include organization, authority, power, status, and decision-making. The Theory of Goal Attainment was based on an overall assumption that the focus of nursing is human beings

interacting with the environment, leading to a state of health for individuals, which is an ability to function in social roles (Alligood and Tomey, 2010).

According to Imogene King, nursing is a process of action, reaction and interaction by which nurse and client share information about their perception in a nursing situation, a process of human interactions between nurse and client whereby each perceives the other and the situation, and through communication, they set goals, explore means, and agree on means to achieve goals (Alligood and Tomey, 2010). Environment is defined as the background for individual interactions. Individuals are defined as human beings who are rational and able to communicate their thoughts, actions, customs, and beliefs through language. Human beings possess similar abilities to perceive, to think, to feel, to choose, to set goals, to select the means to achieve goals, and to make decisions.

The Theory of Goal Attainment is based on a philosophy of human beings and open systems model. Nursing is an interaction process between the nurse and patient. Nurse and patient mutually communicate information about their perceptions, share concerns, establish goals, and then explore means to attain these mutual goals. If role conflict is experienced by either the nurse or the patient (or both), stress in the nurse-patient interaction will occur and patient quality of care and safety are affected. The theory is useful and applicable to nursing practice through the emphasis of nurse-patient relationships.

Application to Current Practice

Based on the Theory of Goal Attainment, when a nurse and patient interact, a transaction will occur and mutually established goals will be attained. If mutual goals are accomplished, satisfaction will occur. If transactions are developed in the nurse-patient interactions, growth and development will be improved. If the nurse and patient's perceptions of role expectations and

performance are similar, transaction will occur. Perception is an important concept in the personal system since it directly influences the nurse's behaviors, personal goals and beliefs. The social system discusses how the nurse interacts with colleagues, superiors, and subordinates. In this system, the nurse and organization share common goals, values, and interests. The personal and social systems greatly influence the patient quality of care. For example, the nurse's role as a patient caregiver and advocate is to ensure that patients receive the optimal care provided by the organization. If the care delivered is suboptimal and deemed unsafe, patients will not attain quality health outcomes. The nurse's goals are to help individuals maintain their health so they can function their roles. In other words, nurses are responsible for helping patients achieve optimal health and ensuring patient satisfaction. When the organization and nurses do not share the same goals and prioritize patient's safety, nurses will not experience personal growth and development.

Application of theory to DNP project

The Theory of Goal Attainment is applicable to the DNP project, specifically the nurse retention program. According to Imogene King, nurses need to interpret information in the nursing process to plan, implement, and evaluate nursing care. These tasks are important and necessary to ensure that all patients receive optimal outcomes. Based on the Theory of Goal Attainment, nurses and patients have mutual goals that focus on promoting and restoring patients' health. Inadequate autonomy and a suboptimal work environment are two factors that will likely prevent the interaction of nurse and patient from occurring, thus hindering the process of transaction from happening.

According to the Theory of Goal of Attainment, growth and development will not occur if adequate interaction between nurse and patient does not take place. Nurses want to attend to

their patients' needs and have time to interact with them, educate them, and develop a relationship with their patients. However, such activities cannot occur when nurses are overwhelmed with high work demands. Nurses are more likely to achieve their goals and provide effective nursing care if organizations supported team nursing and provided them with a better work environment with autonomy and control of work activities.

Nurses and patients would fail to communicate their problems and concerns, to establish mutual goals, and to explore means to achieve them if they were not given enough time for interaction. Nurses' goals are to promote, maintain, and restore health. Without accomplishing these goals, nurses may find the work dissatisfying and with less meaning when they work in an environment that is not conducive to helping patients move toward recovery. The Goal Attainment Theory is utilized to develop a nurse retention program in a home health care organization.

Description of Project Design

This DNP Project utilized a quality improvement design. The project implementation was guided by Lewin's Change Theory. The practice site was a home health care organization with an average nurse turnover rate of thirty percent. The implementation of an evidence-based NRP was necessary to change the current organizational culture in efforts to improve nurse retention, job satisfaction, and intent to stay. The population of interest was nursing staff, including full-time, part-time, and per diem nurses. The variables in this project were nurses' work environments, autonomy and control of work hours, and salary and benefits. The purpose of the project was to implement an evidence-based NRP at practice site to improve nurse retention, job satisfaction, and intent to stay.

Work environment, autonomy and control of work hours, and salary and benefits were factors influencing nurse retention, job satisfaction, and intent to stay. The operations coordinator, chief operations officer, chief financial officer, and nursing administrator of the home health care facility expressed an interest retaining qualified nurses and improving job satisfaction thus supported the implementation of an evidence-based NRP. This DNP Project had been authorized at the project site by the operations coordinator and nursing administrator.

Data collection was completed before and after the NRP implementation and involved review of employee retention data through human resources employment records and administration of surveys to assess job satisfaction and intent to stay. Questionnaire surveys were labeled pre-intervention and post-intervention. The survey was distributed to all participating nursing staff members after all consents were received and permission to proceed was obtained from the organization's CEO.

Population of Interest, Setting, Stakeholders, and Recruitment Methods Population of Interest

The population of interest was thirty-four registered nurses and licensed practical nurses, including full-time, part-time, and per diem, who provide home health care services. Certified nursing assistants, speech therapists, occupational therapists, and physical therapists were not included the project. According to the organization policy, the first ninety day was considered a probationary period, therefore, nurses with less than three months of employment did not meet the inclusion criteria. Nurses who participated in this project already completed the probationary period.

Setting

The DNP Project took place at a private home health care agency in Las Vegas, Nevada. The practice organization is one of the largest home health companies in Southern Nevada with a daily patient census of approximately three hundred. The company was established since September 1994. It offers nurses a competitive compensation package which includes a \$5000 sign on bonus, \$25,000 MetLife insurance policy for full-time employees, and employee stock ownership plan after one year of employment. Employees would receive an average of nineteen percent of the yearly income back in retirement benefits every year.

Full-time nurses would visit six to eight home patients a day, while part time nurses would visit four. In January 2018, the company hired nine nurses. After four months, six nurses left the organization. On average, the company had thirty percent nurse turnover rate. The home health care organization mission and vision include providing high quality patient care through nurse empowerment, professional development, and nurse practice autonomy.

Stakeholders

Stakeholders in this project included the chief executive officer (CEO), operations coordinator, chief operations officer, chief financial officer, nursing administrator (also known as director of nursing), and nursing managers from different departments. These individuals were interested in improving nurse retention, job satisfaction, and intent to stay. The key stakeholders were operations coordinator, chief operations officer, and nursing administrator. The DNP student collaborated with the identified key stakeholders to develop a NRP for the organization.

Recruitment Methods

The operations coordinator allowed the DNP student to participate in the company's field staff meeting to introduce the purpose of the project and explain the importance of nursing staff

engagement during the pre- and post-intervention implementation. The recruitment process involved the DNP student presenting the project aims to nursing staff during the meeting and requesting for their cooperation to implement organizational change. A total of thirty-four participating full-time, part-time, and per diem nurses currently employed by the home health care agency were given a sealed envelope containing a cover letter providing a brief introduction about the purpose of the project, consent information, and instructions for completing the survey during a regularly scheduled staff meeting (Appendix C). Participation in the project was voluntary and anonymous.

The DNP student attended a mandatory staff meeting with all participating nurses before and after implementation of NRP. The NRP was ready for implementation by the end of October. The questionnaire surveys were distributed during the staff meetings. To increase the response rate, the DNP student attended every staff meeting to encourage participants to complete the questionnaire. In addition, email reminders were sent at biweekly intervals to nurses who had not yet responded. Once questionnaire surveys were completed, nursing staff returned it in a sealed envelope and placed it in a locked box provided by the DNP student. Incentives to participate in the study included a five-dollar gift card once all surveys were returned.

Tools/Instrumentation

Pre and Post Intervention Survey

The survey instrument utilized in this project was the Home Health Care Nurses Job Satisfaction Scale (HHNJS). The questionnaire survey was developed by Dr. Carol Ellenbecker (2001) and was based on a theoretical model that integrated the findings of empirical research related to job satisfaction. Numerous scales had been developed to measure nurses' job

satisfaction, however, only the Home Health Care Nurses' Job Satisfaction Scale was created specifically to measure job satisfaction of home health care nurses (Ellenbecker and Byleckie, 2005). The Home Health Care Nurses' Job Satisfaction Scale was a reliable and valid scale for measurement of job satisfaction of home health care nurses. The HHJNS contained 30 items, each of which was rated on a 5-point scale: 1 = strongly agree, 2 = agree, 3 = neutral, 4 = disagree, and 5 = strongly disagree. The 30 items measured nine factors hypothesized to comprise job satisfaction (Ellenbecker, Porell, Samia, Byleckie, and Milburn, 2008). Ellen and Byleckie (2005) established the validity and reliability of the HHNJS for a sample of home health care nurses (Cronbach's alpha = 0.79). Ellenbecker et al (2008) used the HHNSJ in a descriptive correlation study of home health care nurses in six New England states. Nine observed factors of the HHNJS were organizational characteristics, relationship with patients, autonomy and professional pride, group cohesion with peers, relationship with physicians, salary and benefits, stress and workload, autonomy and flexibility in work scheduling, autonomy and control of work activities. Job satisfaction was derived from these nine factors. Participating nurses completed the survey indicating their intent to stay with current position was higher when they rated their job satisfaction.

The DNP student contacted Dr. Ellenbecker via email and permission was granted for the student to use the HHNJS scale in the DNP project (Appendix A).

The NRP

The evidence-based nurse retention program (NRP) was designed to improve nurse retention rates. The NRP created a positive practice environment that promoted autonomy and shared governance aimed to improve job satisfaction. To ensure that the NRP was appropriate for practice organization, the DNP student collaborated with project mentor and key stakeholders

to develop and implement the NRP that aimed to improve nurse salary and benefits, work environment, and practice autonomy (Appendix F). The proposed NRP was reviewed and approved by key stakeholders on October 3rd, 2018.

Educational Training Materials

Staff development is essential and has been associated with job satisfaction and employee retention. Prior to delivering educational training materials to the nurses and stakeholders at practice organization, the DNP student examined their relevance and validity with the project mentor. Educational training included concepts of communication, time management, and strategies to improve nurse work hours and schedules were reviewed. The DNP student presented data from the HHNJS psychometric study to stakeholders and nurses at practice site for educational purposes (Appendix B).

Tool for Examining Nurse Retention

The Home Health Care Nurses' Job Satisfaction scale (Ellenbecker and Byleckie, 2005) consisted of domains that examined the nurses' relationship with peers, relationship with organizations, relationship with physician, salary and benefits, stress and workload, relationship with patients, professional pride, autonomy and control. The job satisfaction scale had a three-item intent to stay scale embedded. The tool was validated and the DNP student received the author's permission to use it in the DNP project (Appendix E). Cronbach's alpha coefficients for each of the nice subscales ranged from 0.64 to 0.83. The correlations between the Home Healthcare Nurses' Job Satisfaction Scale and Mueller and McCloskey Satisfaction Scale was 0.79, indicating good criterion-related validity (Ellenbecker and Byleckie, 2005).

Data Collection and Procedures

Data collection was conducted before and after the NRP implementation and involved review of employee retention data and administration of surveys. To determine the effects of the NRP, the DNP student communicated with human resources to determine how many nurses resigned from the organization before and after implementation of the NRP at monthly intervals. The practice organization accountant and human resources personnel provided the DNP student with ample information about nurse retention rates before and after NRP implementation. Confidentiality was maintained and no names of participants were discussed.

Initial data was collected via surveys during a live staff meeting at the time of implementation and at the six-week mark after the intervention. Survey pre- and post intervention data were collected from the same nurses to compare changes in responses pertaining to job satisfaction and intent to stay. Questionnaire surveys were distributed to participating nursing staff and all survey responses were kept anonymous. The response rate goal was set at greater than 75 percent. Questionnaire (Appendix H) consisted of inquiries about salary, benefits package, opportunity to grow, relationship with administration, group cohesion with peers, and control over work and schedules.

Intervention/Project Timeline

During the last week of October 2018, nursing staff employment records in human resources was examined prior to implementation of the intervention to review the current nurse turnover rates. Nurses' salary and benefits, work schedules including daily census and patient assignment were also reviewed. An introduction letter (Appendix G) about the DNP Project was distributed to eligible nursing staff. A copy of the letter was kept with human resources and nursing administrator. Thirty-four nurses were asked to complete the pre-intervention survey

before implementation of the NRP. Pre-intervention survey was distributed on October 22, 2018. The NRP was implemented on October 26, 2018. All pre-intervention questionnaires were collected on this day.

During the first week of November 2018, the DNP student attended a mandatory nursing staff meeting to reinforce the significance of the DNP Project and address any questions or concerns that participating nurses may have. During this meeting, the DNP student provided education on the NRP and its important components. The NRP went live on November 1st. A copy of the survey was available in human resources.

During the second week of November 2018, the DNP student visited the practice organization to follow up. Participating nursing staff received a follow-up email from the DNP student as a reminder that the intervention had begun. Nurses were encouraged to speak up if they had questions or concerns about the intervention.

During the third week of November 2018, the DNP student informally interviewed nursing staff at the home health organization when they came to pick up their weekly paycheck. The purpose of the brief interview was to address questions and assess for difficulties surrounding NRP. Weekly documentation of nursing staff feedbacks about their practice environment, compensations, and autonomy to schedule work hours and days was performed. Participating nurses were asked to complete a post intervention survey during the last week of November. All post intervention questionnaires were distributed on November 26th and collected by November 30th. Data analysis was completed by the second week of December and findings were presented to practice site on December 14th. During week 14 of DNP Project III, the project results were presented to DNP faculty.

Ethics/Human Subjects Protection

The Institutional Review Board (IRB) determination forms were submitted per Touro University Nevada (TUN) policy and the project fell under the category of TUN quality improvement project, which did not require IRB review. The practice site did not have an IRB committee and therefore did not require an IRB review of the project. The DNP Project involved investigation of nursing staff perceptions of the workplace. The project examined nursing staff job satisfaction related to the practice environment, salary and benefits, and autonomy to schedule work. The project did not include patients. Pre-and post-guideline implementation questionnaires presented minimal risk to participating nurses who completed questionnaires anonymously. To protect the privacy and confidentiality of participants, there were no personal information identified and the questionnaires were numbered one to thirty-four. The participants memorized the numbered pre-implementation questionnaire and wrote it on their post-implementation questionnaire. This process allowed the project leader to link participant responses of the before and after implementation of the NRP.

The DNP Project was considered a quality improvement project that required participants to fill out a questionnaire before and after intervention. Risks to participate in this project were minimal. By participating in the project, home health care nurses provided information to employers about job satisfaction and intent to stay with the organization. Participants in this project were compensated with a Starbucks gift card.

Plan for Analysis/Evaluation

Thirty-four participants were asked to return thirty-four questionnaires numbered from one to thirty-four. The participants memorized the pre-intervention questionnaire number and recorded the same number in the post-intervention questionnaire. The project leader compared

Individual responses. Survey data were collected before and after the implementation of NRP. The questionnaire response categories of a five point Likert item were coded 1 to 5. To evaluate the significance of intervention, a Wilcoxon signed rank test was used to compare for change: nurses' job satisfaction and intent to stay. The thirty-item questionnaire was converted into an identical set of scales for pre and post intervention. Scores were tallied. The Wilcoxon signed-ranked test was selected to determine whether there was a difference in nurse job satisfaction and intent to stay before and after a program implementation. The Statistical Package for the Social Sciences (SPSS) Statistics was used to perform a Wilcoxon signed-rank test to analyze prequestionnaire results and post-questionnaire results. The expected outcome was that the implementation of the NRP was significant in improving nurse job satisfaction and their intent to stay. Nurse retention was measured by the levels of nurses' job satisfaction and intent to stay. The DNP Project statistical analysis was submitted to a statistician for review and the use of Wilcoxon signed rank test was recommended.

Analysis of Results

Data calculations and analysis were conducted using the Statistical Package for the Social Sciences (SPSS). The HHNJS scale used in this project for pre and post testing included items addressing salary, benefits, autonomy, control, and work environment (Appendix B). A comparison of the pre-intervention results and post-intervention results was performed (Appendix I). Statistical significant increase in satisfaction scores was found in areas of work environment, pay scale, benefits package, job flexibility, control of scheduling work and time. No statistical significance was found pertaining to satisfaction with administration, salary, and team communication.

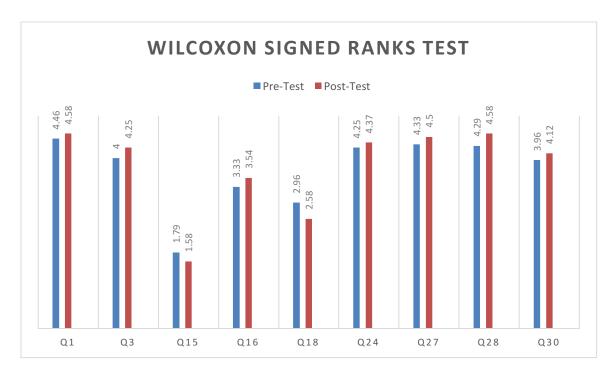


Table 1. Wilcoxon Signed Ranks Test Statistics

Item on HHNJS	Pre-Testing	Post-Testing	p-value (2-tailed)	Z
Question 1 (Q1)	4.46	4.58	.180	-1.342
Question 3 (Q3)	4.00	4.25	.034	-2.121
Question 15 (Q15)	1.79	1.58	.025	-2.236
Question 16 (Q16)	3.33	3.54	.059	-1.890
Question 18 (Q18)	2.96	2.58	.014	-2.460
Question 24 (Q24)	4.25	4.37	.083	-1.732
Question 27 (Q27)	4.33	4.50	.046	-2.000
Question 28 (Q28)	4.29	4.58	.020	-2.333
Question 30 (Q30)	3.96	4.12	.046	-2.000

The HHNJS questionnaire consisted of 30 items, nine were relevant to the project: satisfied with relationship with administration (question 1), opportunity to grow (question 3), pay scale needs to be upgraded (question 15), my salary is satisfactory (question 16), benefits package is not as good (question 18), open lines of communication with team (question 24), more flexibility than others (question 27), have control over scheduling my time (question 28), have little control over work (question 30). Each question had a 5-point Likert-type scale: 1 = strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; 5 = strongly agree. Questions 1, 3, 16, 24,

27, and 28 followed this scale. Questions 15, 18, and 30 were negatively worded questions, therefore, they were reverse scored: 1 = strongly agree; 2 = agree; 3 = neutral; 4 = disagree; 5 = strongly disagree. A score of 5 indicated highest satisfaction while a score of 1 denoted lowest satisfaction. For this project, the HHNJS scale was utilized to measure three components of job satisfaction: salary and benefits, autonomy and control, and work environment.

A Wilcoxon Signed Rank Test did not reveal a statistically significant increase in nursing staff satisfaction with administration following implementation of the NRP protocol: z = -1.342, p > .05 with a small effect size (r = 0.19). The median score increased from pre-implementation (Md = 4.46) to post-implementation (Md = 4.58), a difference of 0.12 for question 1.

A Wilcoxon Signed Rank Test revealed a statistically significant increase in nursing staff satisfaction with work environment (question 3) following implementation of the NRP protocol: z = -2.121, p < .05 with a medium effect size (r = 0.30). The median score increased from preimplementation (Md = 4.00) to post-implementation (Md = 4.25), a difference of 0.25.

A Wilcoxon Signed Rank Test revealed a statistically significant increase in nursing staff satisfaction with pay scale (question 15) following implementation of the NRP protocol: z = -2.236, p < .05 with a medium effect size (r = 0.32). The median score decreased from preimplementation (Md = 1.79) to post-implementation (Md = 1.58), a difference of 0.21.

A Wilcoxon Signed Rank Test did not reveal a statistically significant increase in nursing staff satisfaction with salary (question 16) following implementation of the NRP protocol: z = -1.890, p > .05 with a small effect size (r = 0.27). The median score increased from preimplementation (Md = 3.33) to post-implementation (Md = 3.54), a difference of 0.21.

A Wilcoxon Signed Rank Test revealed a statistically significant increase in nursing staff satisfaction with benefits package (question 18) following implementation of the NRP protocol:

z = -2.460, p < .05 with a medium effect size (r = 0.36). The median score decreased from preimplementation (Md = 2.96) to post-implementation (Md = 2.58), a difference of 0.38.

A Wilcoxon Signed Rank Test did not reveal a statistically significant increase in nursing staff satisfaction with team communication (question 24) following implementation of the NRP protocol: z = -1.732, p > .05 with a small effect size (r = 0.25). The median score increased from pre-implementation (Md = 4.25) to post-implementation (Md = 4.37), a difference of 0.12.

A Wilcoxon Signed Rank Test revealed a statistically significant increase in nursing staff satisfaction with job flexibility (question 27) following implementation of the NRP protocol: z = -2.000, p < .05 with a small effect size (r = 0.29). The median score increased from preimplementation (Md = 4.33) to post-implementation (Md = 4.50), a difference of 0.17.

A Wilcoxon Signed Rank Test revealed a statistically significant increase in nursing staff satisfaction with control over scheduling (question 28) following implementation of the NRP protocol: z = -2.333, p < .05 with a medium effect size (r = 0.34). The median score increased from pre-implementation (Md = 4.29) to post-implementation (Md = 4.58), a difference of 0.29.

A Wilcoxon Signed Rank Test revealed a statistically significant increase in nursing staff satisfaction with control over work (question 30) following implementation of the NRP protocol: z = -2.000, p < .05 with a small effect size (r = 0.29). The median score increased from preimplementation (Md = 3.96) to post-implementation (Md = 4.12), a difference of 0.13.

A paired-samples t-test was conducted to evaluate the impact of the NRP implementation on nurses' scores on the satisfaction with relationship with administration before and after the NRP intervention. There was no statistically significant increase in satisfaction scores from pretesting (M = 4.46, SD = .83) to post-testing (M = 4.58, SD = .58), t(23) = -1.37, p > 0.05 (two-

tailed). The mean increase in job satisfaction score was -.125 with a 95% confidence interval ranging from -.314 to .064. The eta squared statistic (.07) indicated a moderate effect size.

Tab	le 2.	Paired-	Sampl	les t-T	est
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Item on HHNJS	Pre-Testing	Post-Testing	p-value (2-tailed)	Significant increase in
				satisfaction scores
Question 1 (Q1)	4.46	4.58	.185	no
Question 3 (Q3)	4.00	4.25	.031	yes
Question 15 (Q15)	1.79	1.58	.022	yes
Question 16 (Q16)	3.33	3.54	.057	no
Question 18 (Q18)	2.96	2.58	.009	yes
Question 24 (Q24)	4.25	4.37	.083	no
Question 27 (Q27)	4.33	4.50	.043	yes
Question 28 (Q28)	4.29	4.58	.016	yes
Question 30 (Q30)	3.96	4.12	.043	yes

A paired-samples t-test was conducted to evaluate the impact of the NRP implementation on nurses' scores on the satisfaction with work environment ("opportunity to grow") before and after the NRP protocol was implemented. There was a statistically significant increase in satisfaction scores from pre-intervention (M = 4.00, SD = 1.18) to post-intervention (M = 4.25, SD = .79), t(23) = -2.30, p < 0.05 (two-tailed). The mean increase in job satisfaction score was - .250 with a 95% confidence interval ranging from -.474 to -.025. The eta squared statistic (.19) indicated a large effect size.

A paired-samples t-test was conducted to evaluate the impact of the NRP implementation on nurses' scores on the satisfaction with job pay scale before and after the NRP protocol was implemented. There was a statistically significant increase in satisfaction scores from preintervention (M = 1.79, SD = .78) to post-intervention (M = 1.58, SD = .50), t(23) = 2.46, p < 0.05 (two-tailed). The mean increase in job satisfaction score was .21 with a 95% confidence interval ranging from .033 to .383. The eta squared statistic (.21) indicated a large effect size.

A paired-samples t-test was conducted to evaluate the impact of the NRP implementation on nurses' scores on the satisfaction with job salary before and after the NRP protocol was implemented. There was no statistically significant increase in satisfaction scores from preintervention (M = 3.33, SD = 1.00) to post-intervention (M = 3.54, SD = .72), t(23) = -2.00, p > 0.05 (two-tailed). The mean increase in job satisfaction score was -.208 with a 95% confidence interval ranging from -.423 to .006. The eta squared statistic (.15) indicated a large effect size.

A paired-samples t-test was conducted to evaluate the impact of the NRP implementation on nurses' scores on the satisfaction with job benefits package before and after the NRP protocol was implemented. There was a statistically significant increase in satisfaction scores from preintervention (M = 2.96, SD = 1.19) to post-intervention (M = 2.58, SD = .88), t(23) = 2.84, p < 0.05 (two-tailed). The mean increase in job satisfaction score was .375 with a 95% confidence interval ranging from .102 to .648. The eta squared statistic (.26) indicated a large effect size.

A paired-samples t-test was conducted to evaluate the impact of the NRP implementation on nurses' scores on the satisfaction with team communication before and after the NRP protocol was implemented. There was no statistically significant increase in satisfaction scores from preintervention (M = 4.25, SD = .94) to post-intervention (M = 4.37, SD = .77), t(23) = -1.81, p > 0.05 (two-tailed). The mean increase in job satisfaction score was -.125 with a 95% confidence interval ranging from -.267 to .018. The eta squared statistic (.12) indicated a moderate effect size.

A paired-samples t-test was conducted to evaluate the impact of the NRP implementation on nurses' scores on the satisfaction with job flexibility before and after the NRP protocol was implemented. There was a statistically significant increase in satisfaction scores from pre-intervention (M = 4.33, SD = .564) to post-intervention (M = 4.50, SD = .589), t(23) = -2.14, p < 0.564

0.05 (two-tailed). The mean increase in job satisfaction score was -.167 with a 95% confidence interval ranging from -.327 to -.006. The eta squared statistic (.17) indicated a large effect size.

A paired-samples t-test was conducted to evaluate the impact of the NRP implementation on nurses' scores on the satisfaction with control over scheduling before and after the NRP protocol was implemented. There was a statistically significant increase in satisfaction scores from pre-intervention (M = 4.29, SD = .624) to post-intervention (M = 4.58, SD = .503), t(23) = -2.60, p < 0.05 (two-tailed). The mean increase in job satisfaction score was -.292 with a 95% confidence interval ranging from -.524 to -.059 The eta squared statistic (.23) indicated a large effect size.

A paired-samples t-test was conducted to evaluate the impact of the NRP implementation on nurses' scores on the satisfaction with control over work before and after the NRP protocol was implemented. There was a statistically significant increase in satisfaction scores from preintervention (M = 3.96, SD = .55) to post-intervention (M = 4.12, SD = .34), t(23) = -2.145, p < 0.05 (two-tailed). The mean increase in job satisfaction score was -.167 with a 95% confidence interval ranging from -.327 to -.006. The eta squared statistic (.17) indicated a large effect size.

Discussion of Findings

The purpose of this project was to design and implement a NRP and determine if this intervention would increase job satisfaction scores and improve nurse retention rates in a home healthcare organization. Thirty-four nurses were recruited to participate in this project. Before implementation of the NRP, twenty-four out of thirty-four nurses submitted the pre-intervention questionnaire by the designated deadline. Data analysis was conducted on the twenty-four pre and post-intervention questionnaires collected. In the pre-testing period prior to NRP implementation, majority of the participating nurses indicated high satisfaction with

administration, work environment, team communication, job flexibility, and control over scheduling of work time. All these items on the questionnaire (Q1, Q3, Q24, Q27, Q28, Q30) were given a score of 4 or higher. The three areas that received poor satisfaction scores were pay scale, salary, and benefits package. These items (Q15, Q16, Q18) received a score of 3 or lower.

One month after implementation of the NRP, the results indicated there was no statistically significant relationship between the NRP and satisfaction scores pertaining to satisfaction with administration, salary, and team communication. Although the difference in satisfaction scores was negligible, there was improvement. For satisfaction with administration, the score was 4.46 before NRP implementation which increased to 4.58 in post-testing. For satisfaction with salary, the score was 3.33 in pre-test which increased to 3.54 in post-test. For satisfaction with team communication, the score was 4.25 in pre-implementation of NRP which increased to 4.37 in post-implementation. Post-testing results indicated statistically significant increase in satisfaction scores relating to the work environment, pay scale, benefits package, job flexibility, control of scheduling work and time. These findings are consistent with the determinants of employee retention identified in previous studies (Christeen, 2015; Ellenbecker et al., 2008). Overall, the desired outcomes and objectives of the project have been met: factors contributing to nurse retention, job satisfaction, and intent to stay were identified; the implementation of the NRP to increase nursing staff job satisfaction was successful. Through the implementation of NRP, nursing job satisfaction scores have improved at host site.

Significance/Implications for Nursing

The objectives of this DNP Project were to develop and implement an evidence-based nurse retention program to improve job satisfaction and nurses' intent to stay at the home health care organization. Buerhaus (2008) predicted a deficit in registered nurses (RNs) in the United

States with projected shortages of 285,000 RNs by 2020 and 500,000 RNs by 2025. The development of an effective nurse retention program is one strategy to enhance the nursing shortage in home health care. The creation of a positive nurse practice environment, improvement in salary and benefits, and the promise of autonomy to self-schedule are interventions proven to increase job satisfaction and nurse intent to stay.

The creation of a positive work environment that allows for nurse autonomy in decision-making and participation in workplace governance may lower rates of nurse intention-to-leave (Van den Heede et al., 2011). With an increasing demand for nurses, home health care agencies develop strategies to increase retention. There is strong evidence that the independence and professional autonomy in the role of home health care nurses is the major aspect of job satisfaction (Ellenbecker, 2004). Additionally, the provision of health insurance and other benefits may reduce the odds of nursing staff turnover (Luo, Lin, and Gastle, 2012).

By understanding the determinants of nursing retention, home healthcare agencies can retain employees in a time of critical nurse shortages and increased patient demand (Ellenbecker et al., 2008). The implementation of the NRP at the practice site has the potential to produce significant results that other home health care organizations can follow to improve job satisfaction to reduce nurse turnover. Findings from this project can be used to guide home health care agencies to further explore interventions improving retention and intent to stay. The practice site currently has a thirty percent turnover rate and the nursing shortage limits the agency from providing more home health care services. This evidence-based NRP will assist the practice site in improving employee job satisfaction and intent to stay through enhancing nurse work environment, improving nurses' salary and benefits, and promoting professional autonomy.

Limitations

This project has several limitations. The results of this project may be applied to home healthcare setting, however, will require further investigation to determine generalizability in this population. One major limitation in this project is the lack of participation from eligible nursing staff. Although the response rate was 70 percent, it was acceptable since the response rates for all groups of health care professionals has been declining over the last 20 years. Reasons for low response rates include a lack of time, lack of knowledge, lack of funding, nurses' poor attitude/perception towards studies, and increasingly busy work schedules and stressful jobs (Nkrumah, Atuhaire, Priebe, and Cumber, 2018; Asch, Jedrziewski, and Christakis, 1997; Hill, Fahrney, Wheeless, and Carson, 2006). During the recruitment period, thirty-four home healthcare nurses at the host organization expressed interest in the project. Prior to the NRP implementation, twenty-four out of thirty-four nurses submitted the pre-intervention questionnaire. Post-intervention, response rate was less than fifty percent. The data collection deadline was extended three times to improve response rates.

Other limitations in this project include a small sample size and a brief time period of the intervention which followed the NRP implementation. With a small sample size of twenty-four nurses, the survey might not have accurately measured the home healthcare nurses' self-reported job satisfaction. The project took place over a six-week period at one single home healthcare company. Post-intervention questionnaires were collected from nurses only one month after the NRP implementation. This project has not examined the long-term outcome of the NRP on the nurses' job satisfaction, cost savings or retention over time.

Areas for Further Dissemination

Home healthcare nursing has the potential to decrease healthcare costs while providing safe and high-quality care to improve health outcomes and reduce hospital stays. Home care nurses provide patients a valuable service which focuses on a healthier lifestyle. In addition, the use of home care nurses will assist in reducing costs, and assist in the reduction of the number of hospital and long term care facility admissions (Romagnoli, Handler, and Hochheiser, 2013). The findings in this project are to be presented to the nursing staff and stakeholders at the host organization. Dissemination activities include summaries for stakeholders, educational sessions with staff and policymakers, development and implementation of guidelines (Curtis, Fry, Shaban, and Considine, 2016).

The NRP is included in the host organization employee handbook and has the potential to assist other home healthcare agencies to improve recruitment and retention of home care nurses. Understanding the determinants of home healthcare nurse retention can help this agency and potentially other similar agencies retain nurses in a time of severe nurse shortage and increased patient demand. In this project, job satisfaction, job benefits, comparable wages, and autonomy influenced nurse intent to stay and retention.

This project will be submitted to the doctoral project repository at Doctors of Nursing

Practice website. Additionally, this project will be submitted for publication in The Home Care

Practice and Management Journal within three months.

References

- Abdullah Al Maqbali, M. (2015). Factors that influence nurses' job satisfaction: A literature review. *Nursing Management*, 22(2), 30-37.
- Asch, D.A., Jedrziewski, M.K., & Christakis, N.A. (1997). Response rates to mail surveys published in medical journals. *Journal of Clinical Epidemiology*, *50*, 1129–1136.
- Bae, S.H., Mark, B., & Fried, B. (2009). Impact of nursing unit turnover on patient outcomes in hospitals. *Journal of Nursing Scholarship*, 42(1), 40-49.
- Buerhaus, P. (2008). Current and future state of the U.S. nursing workforce. *Journal of American Medical Association*, 300(20): 2422-2424.
- Christeen, G. (2015) Retaining Professional Workers: What Makes Them Stay? *Employee Relations*, 37, 102-121.
- Cimiotti, J.P., Aiken, L.H., Sloane, D.M., & Wu, E.S. (2012). Nursing staffing, burnout, and health care-associated infection. *American Journal of Infection Control*, 40(6), 486-490.
- Curtis, K., Fry, M., Shaban, R. Z., & Considine, J. (2017). Translating research findings into clinical nursing practice. *Journal of Clinical Nursing*, 26(5-6), 862-872.
- Cushman, M.J., Ellenbecker, C.H., & St. Pierre, M. (2008). Home care nurse shortage 2007.

 Caring Magazine, 27(1), 43–47.
- Cushman, M.J., Ellenbecker, C.H., Wilson, D.L., McNally, M.T., & Kinsha, W. (2001). The nurse retention and recruitment a home care agency perspective. *Caring Magazine*, 20(10), 62-67.
- Edwards, D. J. (2015). Dissemination of research results: On the path to practice change. *The Canadian Journal of Hospital Pharmacy*, 68(6), 465-469.

- Ellenbecker, C.H. (2001). Home healthcare nurses job satisfaction: a system indicator. *Home Care Practice and Management*, *13*(6), 462-467.
- Ellenbecker, C.H. (2004). A theoretical model of job retention for home health care nurses. *Journal of Advanced Nursing*, 47(3), 303-10.
- Ellenbecker, C.H., Boylan, L.N., & Samia, L. (2006). What home health care nurses are saying about their jobs. *Home Healthcare Nurse*, 24(5), 315–324.
- Ellenbecker, C.H., & Byleckie, J.J. (2005). Home Healthcare Nurses' Job Satisfaction Scale:

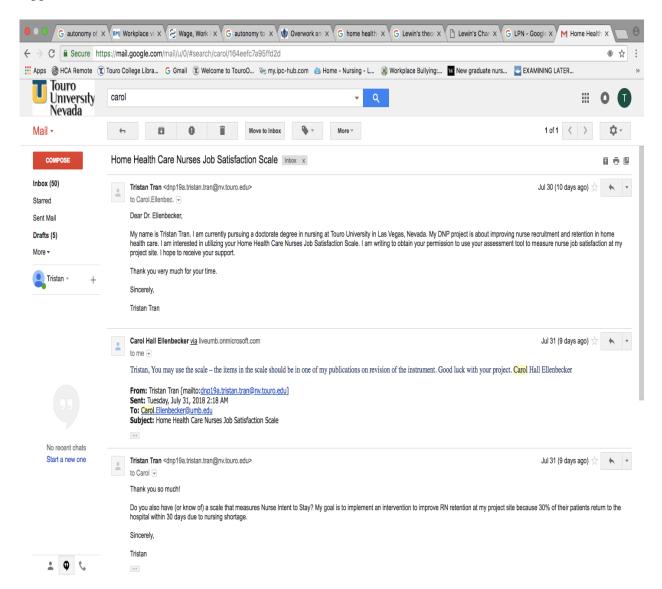
 Refinement and psychometric testing. *Journal of Advanced Nursing*, 52(1), 70–78.
- Ellenbecker, C.H., Byleckie, J., & Samia, L. (2008). Further psychometric testing of the Home Healthcare Nurse Job Satisfaction Scale. *Research in Nursing & Health*, 31(2), 152–164.
- Ellenbecker, C.H., & Cushman, M.J. (2001). The nurse shortage. A home care agency perspective. *Caring*, 20(7), 28–32.
- Ellenbecker, C.H., Porell, F.W., Samia, L., Byleckie, J.J., & Milburn, M. (2008). Predictors of home healthcare nurse retention. *Journal of Nursing Scholarship*, 40(2), 151-60.
- Ellenbecker, C.H., Samia, L., Cushman, M.J., & Porell, F. (2007). Employer retention strategies and their effect on nurses' job satisfaction and intent to stay. *Home Health Care Services Quarterly*, 26(1), 43–58.
- Fisher, C.A., Jabara, J., Poudrier, L., Williams, T., & Wallen, G.R. (2016). Shared governance: The way to staff satisfaction and retention. *Nursing Management*, 47(11), 14-16.
- Garrett, C. (2008). The effect of nurse staffing patterns on medical errors and nurse burnout. *AORN J.*, 87(6), 1191-1204.
- Happell, B. (2007). Conference presentations: developing nursing knowledge by disseminating

- research findings. *Nursing Research*, 15(1), 70-7.
- Hill, C.A., Fahrney, K., Wheeless, S.C., & Carson, C.P. (2006). Survey response inducements for registered nurses. *Western Journal of Nursing Research*, 28, 322–334.
- Kalisch, B.J., Lee, H., & Rochman, M. (2010). Nursing staff teamwork and job satisfaction. *Journal of Nursing Management*, 18(8), 938-947.
- Kalisch, B.J., Lee, H., & Salas, E. (2010). The development and testing of the nursing teamwork survey. *Nursing Research*, *59*(1), 42-50.
- Kenny, P., Reeve, R., & Hall, J. (2016). Satisfaction with nursing education, job satisfaction, and work intentions of new graduate nurses. *Nurse Education Today*, *36*, 230-235.
- Kleinman, C.S. (2004). Leadership: A key strategy in staff nurse retention. *The Journal of Continuing Education in Nursing*, *35*(3), 128-132.
- Kooler, B.M., & Kamikawa, C. (2010). Successful strategies to improve RN retention and patient outcomes in a large medical centre in Hawaii. *Journal of Clinical Nursing*, 20(1), 34-39.
- Koppel, J., Deline, M., & Virkstis, K. (2017). The case for focusing on millennial retention. *Journal of Nursing Administration*, 47(7), 361-363.
- Kover, C.T., Brewer, C.S., & Fatehi, F. (2014). What does nurse turnover rate mean what what is the rate? *Policy, Politics, & Nursing Practice, 15*(3), 64-71.
- Lathrop, B., & Hodnicki, D.R. (2014). The Affordable Care Act: Primary care and the doctor of nursing practice nurse. *OJIN: The Online Journal of Issues in Nursing*, 19(2).
- Luo, H., Lin, M., & Castle, N.G. (2012). The correlates of nursing staff turnover in home and hospice agencies: 2007 National Home and Hospice Care Survey. *Research on Aging*, 35(4), 375-392.
- McHugh, M.D., & Ma, C. (2014). Wage, work environment, and staffing: Effects on nurse

- outcomes. Policy Polit Nurs Pract. 15(0), 72-80.
- McLure, M.L. (2007). Spotlight on nurse staffing, autonomy, and control over practice. *American Nurse Today*, 2(4).
- Mills, J., Chamberlain-Salaun, J., Harrison, H., Yates, K., & O'Shea, A. (2016). Retaining early career registered nurses: A case study. *BMC Nursing*, 15(57).
- Nkrumah, I., Atuhaire, C., Priebe, G., & Cumber, S. N. (2018). Barriers for nurses' participation in and utilization of clinical research in three hospitals within the Kumasi Metropolis, Ghana. *The Pan African Medical Journal*, *30*(24).
- Romagnoli, K.M., Handler, S.M., & Hochheiser, H. (2013). Home care: More than just a visiting nurse. *BMJ Qual Saf*, 22(12), 972-974.
- Shader, K., Broome, M.E., Broome, C.D., West, M.E., & Nash, M. (2001). Factors influencing satisfaction and anticipated turnover for nurses in an academic medical center.

 **Journal of Nursing Administration, 31(4), 210-216.
- Sherbinski, L.A., & Stroup, D.R. (1992). Developing a poster for disseminating research findings. *AANA Journal*, 60(6), 567-72.
- Twibell, R., & St. Pierre, J. (2012). Tripping over the welcome mat: Why new nurses don't stay and what the evidence says we can do about it. *American Nurse Today*, 7(6).
- Twigg, D., & McCullough, K. (2014). Nurse retention: A review of strategies to create and enhance positive practice environments in clinical settings. *International Journal of Nursing Studies*, *51*(2014), 85-92.
- Van den Heede, K., Florquin, M., Bruyneel, L., Aiken, L., Diya, L., Lesaffre, E., & Sermeus, W. (2011). Effective strategies for nurse retention in acute hospitals. *International Journal of Nursing Studies*, *50*(2013), 185-194.

Appendix A. Permission to Use Home Health Nurse Job Satisfaction Scale



Appendix B. Home Health Nurse Job Satisfaction Scale

Nine Home Healthcare Nurses Job Satisfaction Scale (HHNJS) subscales from the

psychometric study

Characteristics	Subscales	Number of items	α
	Autonomy and independence	4	0.81
	Professional growth	5	0.76
Intrinsic	Group cohesion, peers	3	0.69
characteristics	Group cohesion, physicians	2	0.72
	Characteristics of organization	5	0.82
	Intrinsic total	19	0.87
	Stress and work load	3	0.64
	Autonomy and flexibility in working scheduling	2	0.65
Extrinsic	Autonomy and control of work activities	2	0.69
characteristics	Salary and benefits and perception opportunities elsewhere	4	0.65
	Extrinsic total	11	0.75
	Job satisfaction total	30	0.89

Component items							
Satisfied with relationship with administration	My salary is satisfactory						
Have the power to change	It would be difficult to find job						
Opportunity to grow	Benefits package is not as good						
Authority to adopt standards of care	Overwhelmed by all the work I have						
Administration decision interfere	If I had more time I could do better						
Patients satisfied with care	Able to cope with documentation						
Have helped patients	Good amount of collegiality						
Patients relationship are rewarding	Have peers I can rely on						
Care adheres to professional standards	Open lines of communication with team						
Independence is required in my job	Treated as a professional						
Proud to talk of work	Physicians value my input						
Work is important and worthwhile	More flexibility than others						
Would recommend my job	Have control over scheduling my time						
Would choose home care again	Frustrated because of programmed activities						
Pay scale needs to be upgraded	Have little control over work						

Appendix C. The Elements of Nurse Retention Program

Autonomy	Salary and Benefits	Work Environment		
RN have control over practice	Sign-on bonus	No micromanagement		
RN have control over work	Vacation and life insurance	Opportunity to grow, open		
hours		communication		
RN have control over work	Medical, dental, and vision	Professional conferences and		
schedules	benefits. Retirement benefits	webinars		
RN manage their own patient	401K, employee stock	Shared-governance, decision-		
load each day	ownership plan	making process		

Appendix D. Educational Training Materials

Nurse Turnover Cost

Advertising and recruitment

Vacancy costs (e.g., paying for agency nurses, overtime, closed beds, hospital diversions, etc.)

Hiring

Orientation and training

Decreased productivity

Termination

Potential patient errors, compromised quality of care

Poor work environment and culture, dissatisfaction, distrust

Loss of organizational knowledge

Additional turnover

Nurse Retention Benefits

Reduction in advertisement and recruitment costs

Fewer vacancies and reduction in vacancy costs

Fewer new hires and reduction in hiring costs

Fewer orientees and reduced orientation and training costs

Maintained or increased productivity

Fewer terminations and reduction in termination costs

Decreased patient errors and increased quality of care

Improved work environment and culture, increased satisfaction, increased trust and accountability

Preserve organizational knowledge

Easier nurse recruitment

Appendix E. Tool for Examining Nurse Retention

Component items

Satisfied with relationship with administration Have the power to change Opportunity to grow Authority to adopt standards of care Administration decisions interfere Patients satisfied with care Have helped patients Patients relationships are rewarding Care adheres to professional standards Independence is required in my job Proud to talk of work Work is important and worthwhile Would recommend my job Would choose home care again Pay scale needs to be upgraded My salary is satisfactory It would be difficult to find job Benefits package is not as good Overwhelmed by all the work I have If I had more time I could do better Able to cope with documentation Good amount of collegiality Have peers I can rely on Open lines of communication with team Treated as a professional Physicians value my input More flexibility than others Have control over scheduling my time Frustrated because of programmed activities

Have little control over work

Appendix F. Home Health Care Nurse Retention Program

PHILOSOPHY

Caring Nurses Inc. recognizes the importance of nurse retention and job satisfaction to reduce nurse turnover and provide quality of delivery related to home health care services.

GOAL

Home health care agency creates a positive work environment for nurses by providing them an opportunity in decision-making, competitive salary and benefits, and granting them professional autonomy and control of work hours to attain high level of job satisfaction to improve job retention.

SALARY AND BENEFITS

- Paid vacation: All full-time nurses will receive one week (forty hours) after 1000 hours (one year) of employment.
- Paid holiday: All full-time and part-time nurses will receive holiday pay for working on New Year Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day for start of care visits.
- Mileage reimbursement: All nurses will be reimbursed \$5 per visit for mileage.
- Provision of uniforms: All full-time and part-time nurses will receive one lab coat one time on hire.
- Health insurance for employee and family members: All full-time nurses will be offered medical and vision benefits. The company will cover 50% of the premium for Medical insurance and 100% of the premium for Vision insurance. For dependents, nurses will be responsible for full payments.
- 401k plan: All full-time nurses will receive 401k upon completing 1000 hours and one year of employment.
- Employee stock ownership plan (ESOP): All nurses will be offered ESOP after completing 1000 hours and one year of employment.
- Continuing Education: All full-time and part-time nurses will be offered nursing CEUs provided by the company and CE courses approved by the Nevada State Board of Nursing. In addition to receiving hours, nurses will be paid to attend classes.
- Tablets: All full-time and part-time nurses will receive a tablet for business use with TigerConnect text messaging application, email, and access to patient chart.

AUTONOMY AND CONTROL OF WORK SCHEDULES

- Control over work activities: All nurses will develop their own nursing care plan.
- Control of work hours/days: In accordance with patient preferences, all nurses will be able to schedule their own working hours and days, without any limitations.
- Nurses can schedule to work any day and any time as long as they accommodate their patients' schedules and fulfill the hour requirements. Full-time is considered 25 hours average per week with Start of Care visit equaling 2 hours.
- Control of daily patient assignment: All nurses will create their own patient assignment. Nurses will determine how many patients they will visit in a day, not to exceed eight patients per day. The organization promotes work life balance, therefore, working overtime is not encouraged.

- Independence in nurse-patient relationships: All nurses will establish rapport with their own patients.
- Autonomy in the profession: All nurses will practice within their scope and report patient outcomes and/or changes in condition directly to appropriate medical providers.

WORK ENVIRONMENT

- Promote shared-governance: Administrators and organizational leaders will empower all nurses to participate in decisions making processes that affect patient care and nursing practice.
- Promote accountability and responsibility: All nurses will have the opportunity to attend weekly interdisciplinary team meeting to discuss about their patients' progress.
- Professional development opportunities: All nurses will have the opportunities to attend up to three classes related to home health care funded by the company.
- Recognition of nursing excellence: All nurses will be recognized for demonstrating outstanding nursing work measured by patient clinical outcomes and a decrease in hospital readmissions. Nurses will receive a Recognition Award in the form of a plaque and a gift card.
- Open communication: All nurses will report their problems and concerns to organizational leaders and there will be a follow-up within a 24-hour period.
- Participative and supportive management: By enforcing a zero-tolerance policy to prevent incivility, bullying behavior, and lateral/horizontal violence in the workplace.

APPROVALS

Chief Executive Officer:	Roger Corbin	Date: October 3 rd , 2018
Chief Operations Officer:	Cremson Turfley	Date: October 3 rd , 2018
Administrator:	Lori Comstock	Date: October 3 rd , 2018
Controller:	Adele Newberry	Date: October 3 rd , 2018

Appendix G. Introduction Letter of DNP Project to Practice Site

Dear Caring Nurses' Amazing Nurses,

My name is Tristan Tran. I am a nurse practitioner and a DNP student at Touro University. This summer I am working on my doctorate thesis.

My DNP project is about implementing an evidence-based nurse retention program in a home health care organization.

I am incredibly fortunate to have Caring Nurses' support and allow me the opportunity to carry out my project.

I have a 30-question survey that will examine your current work environment, job satisfaction level, and overall intent to stay with the organization.

Your feedback is greatly appreciated.

This quality improvement project is all about you. I hope you will participate in this project because your voice matters.

Sincerely, Tristan Tran, APRN

Appendix H. Pre and Post-intervention Survey

QUESTIONS			Aľ	NSWERS	
I am satisfied with relationship with administration.	Strong Agree 1	Agree 2	Neutral 3	Disagree 4	Strongly Disagree 5
2. I have the power to change practice.	Strong Agree 1	Agree 2	Neutral 3	Disagree 4	Strongly Disagree 5
3. I have opportunity to grow.	Strong Agree 1	Agree 2	Neutral 3	Disagree 4	Strongly Disagree 5
4. I have authority to adopt standards of care.	Strong Agree 1	Agree 2	Neutral 3	Disagree 4	Strongly Disagree 5
5. Administration decision interfere with my work.	Strong Agree 1	Agree 2	Neutral 3	Disagree 4	Strongly Disagree 5
6. Patients satisfied with the care I provide.	Strong Agree 1	Agree 2	Neutral 3	Disagree 4	Strongly Disagree 5
7. I have helped patients.	Strong Agree 1	Agree 2	Neutral 3	Disagree 4	Strongly Disagree 5
8. Patients relationship are rewarding.	Strong Agree 1	Agree 2	Neutral 3	Disagree 4	Strongly Disagree 5
9. The care I provide adheres to professional standards.	Strong Agree 1	Agree 2	Neutral 3	Disagree 4	Strongly Disagree 5
10. Independence is required in my job.	Strong Agree 1	Agree 2	Neutral 3	Disagree 4	Strongly Disagree 5
11. I am proud to talk of work.	Strong Agree 1	Agree 2	Neutral 3	Disagree 4	Strongly Disagree 5
12. Work is important and worthwhile.	Strong Agree 1	Agree 2	Neutral 3	Disagree 4	Strongly Disagree 5
13. I would recommend my job.	Strong Agree 1	Agree 2	Neutral 3	Disagree 4	Strongly Disagree 5
14. I would choose home care again.	Strong Agree 1	Agree 2	Neutral 3	Disagree 4	Strongly Disagree 5
15. My pay scale needs to be upgraded.	Strong Agree 1	Agree 2	Neutral 3	Disagree 4	Strongly Disagree 5
16. My salary is satisfactory.	Strong Agree 1	Agree 2	Neutral 3	Disagree 4	Strongly Disagree 5
17. For me, it would be difficult to find job.	Strong Agree 1	Agree 2	Neutral 3	Disagree 4	Strongly Disagree 5
18. Benefits package is not as good.	Strong Agree 1	Agree 2	Neutral 3	Disagree 4	Strongly Disagree 5
19. I am overwhelmed by all the work I have.	Strong Agree 1	Agree 2	Neutral 3	Disagree 4	Strongly Disagree 5
20. If I had more time, I could do better.	Strong Agree 1	Agree 2	Neutral 3	Disagree 4	Strongly Disagree 5
21. I am able to cope with documentation.	Strong Agree 1	Agree 2	Neutral 3	Disagree 4	Strongly Disagree 5
22. I have a good amount of collegiality.	Strong Agree 1	Agree 2	Neutral 3	Disagree 4	Strongly Disagree 5
23. I have peers I can rely on.	Strong Agree 1	Agree 2	Neutral 3	Disagree 4	Strongly Disagree 5

24. There are open lines of	Strong Agree	Agree	Neutral	Disagree	Strongly Disagree
communication with team.	1	2	3	4	5
25. I am treated as a professional.	Strong Agree	Agree	Neutral	Disagree	Strongly Disagree
_	1	2	3	4	5
26. Physicians value my input.	Strong Agree	Agree	Neutral	Disagree	Strongly Disagree
	1	2	3	4	5
27. This job is more flexibility than	Strong Agree	Agree	Neutral	Disagree	Strongly Disagree
others.	1	2	3	4	5
28. I have control over scheduling my	Strong Agree	Agree	Neutral	Disagree	Strongly Disagree
time.	1	2	3	4	5
29. I am frustrated because of	Strong Agree	Agree	Neutral	Disagree	Strongly Disagree
programmed activities.	1	2	3	4	5
30. I have little control over work.	Strong Agree	Agree	Neutral	Disagree	Strongly Disagree
	1	2	3	4	5

Appendix I. Data Analysis with Wilcoxon Signed Rank Test and Paired-Samples T-Test

Test Statistics^a

	postQ1 - qu1	postQ3 – qu3	postQ15 - qu15	postQ16 - qu16	postQ18 - qu18	postQ24 – qu24	postQ27 – qu27	postQ28 – qu28	postQ30 - qu30
Z	-1.342 ^b	-2.121 ^b	-2.236 ^c	-1.890 ^b	-2.460 ^c	-1.732 ^b	-2.000 ^b	-2.333 ^b	-2.000 ^b
Asymp. Sig. (2-tailed)	.180	.034	.025	.059	.014	.083	.046	.020	.046

- a. Wilcoxon Signed Ranks Test
- b. Based on negative ranks.
- c. Based on positive ranks.

Descriptive Statistics

						Percentiles				
	N	Mean	Std. Deviation	Minimum	Maximum	25th	50th (Median)	75th		
qul	24	4.4583	.83297	2.00	5.00	4.0000	5.0000	5.0000		
qu3	24	4.0000	1.17954	1.00	5.00	4.0000	4.0000	5.0000		
qu15	24	1.7917	.77903	1.00	3.00	1.0000	2.0000	2.0000		
qu16	24	3.3333	1.00722	1.00	5.00	3.0000	3.5000	4.0000		
qu18	24	2.9583	1.19707	1.00	5.00	2.0000	3.0000	4.0000		
qu24	24	4.2500	.94409	1.00	5.00	4.0000	4.0000	5.0000		
qu27	24	4.3333	.56466	3.00	5.00	4.0000	4.0000	5.0000		
qu28	24	4.2917	.62409	3.00	5.00	4.0000	4.0000	5.0000		
qu30	24	3.9583	.55003	3.00	5.00	4.0000	4.0000	4.0000		
postQ1	24	4.5833	.58359	3.00	5.00	4.0000	5.0000	5.0000		
postQ3	24	4.2500	.79400	2.00	5.00	4.0000	4.0000	5.0000		
postQ15	24	1.5833	.50361	1.00	2.00	1.0000	2.0000	2.0000		
postQ16	24	3.5417	.72106	2.00	5.00	3.0000	3.5000	4.0000		
postQ18	24	2.5833	.88055	1.00	4.00	2.0000	3.0000	3.0000		
postQ24	24	4.3750	.76967	2.00	5.00	4.0000	4.5000	5.0000		
postQ27	24	4.5000	.58977	3.00	5.00	4.0000	5.0000	5.0000		
postQ28	24	4.5833	.50361	4.00	5.00	4.0000	5.0000	5.0000		
postQ30	24	4.1250	.33783	4.00	5.00	4.0000	4.0000	4.0000		

Paired Samples Statistics								
		Mean	N	Std. Deviation	Std. Error Mean			
Pair 1	qu1	4.4583	24	.83297	.17003			
	postQ1	4.5833	24	.58359	.11913			
Pair 2	qu3	4.0000	24	1.17954	.24077			
	postQ3	4.2500	24	.79400	.16207			
Pair 3	qu15	1.7917	24	.77903	.15902			
	postQ15	1.5833	24	.50361	.10280			
Pair 4	qu16	3.3333	24	1.00722	.20560			
	postQ16	3.5417	24	.72106	.14719			
Pair 5	qu18	2.9583	24	1.19707	.24435			
	postQ18	2.5833	24	.88055	.17974			
Pair 6	qu24	4.2500	24	.94409	.19271			
	postQ24	4.3750	24	.76967	.15711			
Pair 7	qu27	4.3333	24	.56466	.11526			
	postQ27	4.5000	24	.58977	.12039			
Pair 8	qu28	4.2917	24	.62409	.12739			
	postQ28	4.5833	24	.50361	.10280			
Pair 9	qu30	3.9583	24	.55003	.11228			
	postQ30	4.1250	24	.33783	.06896			

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	qu1 & postQ1	24	.857	.000
Pair 2	qu3 & postQ3	24	.928	.000
Pair 3	qu15 & postQ15	24	.877	.000
Pair 4	qu16 & postQ16	24	.878	.000
Pair 5	qu18 & postQ18	24	.849	.000
Pair 6	qu24 & postQ24	24	.942	.000
Pair 7	qu27 & postQ27	24	.783	.000
Pair 8	qu28 & postQ28	24	.542	.006
Pair 9	qu30 & postQ30	24	.731	.000

Paired Samples Test

				Paired Difference	ces				
		Mean	Std. Deviation	Std. Error Mean	95% Confidenc the Diffe Lower		t	df	Sig. (2- tailed)
Pair 1	qu1 - postQ1	12500	.44843	.09153	31435	.06435	-1.366	23	.185
Pair 2	qu3 - postQ3	25000	.53161	.10851	47448	02552	-2.304	23	.031
Pair 3	qu15 - postQ15	.20833	.41485	.08468	.03316	.38351	2.460	23	.022
Pair 4	qu16 - postQ16	20833	.50898	.10389	42326	.00659	-2.005	23	.057
Pair 5	qu18 - postQ18	.37500	.64690	.13205	.10184	.64816	2.840	23	.009
Pair 6	qu24 - postQ24	12500	.33783	.06896	26765	.01765	-1.813	23	.083
Pair 7	qu27 - postQ27	16667	.38069	.07771	32742	00591	-2.145	23	.043
Pair 8	qu28 - postQ28	29167	.55003	.11228	52393	05941	-2.598	23	.016
Pair 9	qu30 - postQ30	16667	.38069	.07771	32742	00591	-2.145	23	.043