2019

Impact of the Prophecy Job Fit Predictor on New Graduate Nurse Satisfaction

Joi Alesha Johnson
Walden University

Walden University

College of Health Sciences

This is to certify that the doctoral study by

Joi Johnson

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

Review Committee
Dr. Courtney Nyange, Committee Chairperson, Nursing Faculty
Dr. Susan Hayden, Committee Member, Nursing Faculty
Dr. Linda Matheson, University Reviewer, Nursing Faculty

Chief Academic Officer
Eric Riedel, Ph.D.

Walden University
2019

Abstract

Impact of the Prophecy Job Fit Predictor on New Graduate Nurse Satisfaction

by

Joi Johnson

MSN, Walden University, 2010

BSN, Barry University, 2004

Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Nursing Practice

Walden University

July 2019

Abstract

Research has shown that job satisfaction influences retention of nurses, and policies focused on nursing satisfaction are more beneficial for retaining new nurses than adjusting work hours and wages. The prophecy job fit predictor is a quality improvement initiative designed to identify where a nurse should be assigned based on behavior, clinical capabilities, and personality assessment. The practice-focused question for this project focused on whether satisfaction rates of recently graduated registered nurses were influenced by their unit placement. The conceptual frameworks that guided this project were the plan, do, study, and act method and Herzberg's 2-factor theory. Data were obtained from surveying a cohort of 54 graduate nurses in 3 hospital locations in 6 specialty units. Results obtained using 1-way ANOVA and a Likert scale showed that graduate nurse satisfaction rates increased when assigned to their best fit unit: prophecy job fit 58.33% with a mean score of 3.34 (Hospital A), prophecy job fit 20% with a mean score of 3.1 (Hospital B), prophecy job fit 33.33% with a mean score of 3.1 (Hospital C). The results showed that the prophecy job fit predictor during nursing orientation can guide nurses into the appropriate specialty unit and increase nursing satisfaction. The implications of these findings for positive social change in nursing practice include the benefits of using the prophecy job fit predictor when assigning graduate nurses to their hospital setting to address the nursing shortage.

Impact of the Prophecy Job Fit Predictor on New Graduate Nurse Satisfaction

by

Joi Johnson

MSN, Walden University, 2010

BSN, Barry University, 2004

Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Nursing Practice

Walden University

July 2019

Dedication

I have dedicated this DNP project to my twin children, Brandon and Eden, who were my constant motivation and joy. To my family and friends who supported me during this journey and who always believed in me. Thank you for helping me make my dreams come true.

Table of Contents

List of Tables

List of Figures

Section 1: Nature of the Project

Introduction

Despite preceptor programs and hospital led retention interventions, new graduate nurses are unsatisfied and leaving the profession, leading to a high turnover rate among this group. Though determining the actual retention rate for new graduate nurses in the United States is difficult and current estimates vary (Blegen, Spector, Lynn, Barnsteiner, & Ulrich, 2017), research has indicated that the transition for new graduate nurses into the workforce is stressful due to heavy workloads and lack of professional nursing competence (Labrague & McEnroe, 2018). Further, nurse turnover creates a shortage that impacts patient care and causes nurse dissatisfaction, which may be caused by a lack of job fit. New nurses may not be assigned to units that fit with their personality, skill set, or preference (Lleixá et al., 2010). Therefore, this project was conducted to investigate job fit and nursing satisfaction and obtain a greater understanding of new graduate nurse turnover rates.

Problem Statement

The problem that I addressed in this project is the high turnover rates among new graduate nurses by evaluating the impact of the Prophecy (2018) job fit predictor on nursing satisfaction rates of recently graduated registered nurses in their hired hospital setting. According to the National Council of State Boards of Nursing (2018), approximately 25% of new nurses leave a position within their first year of practice. Increased turnover negatively influences patient safety and health care outcomes, which significantly impacts nursing practice (Eckerson, 2018). Additionally, the U.S. Bureau of

Labor Statistics (2018) projects that 1.1 million additional nurses will be needed to avoid a continued shortage in health care. The nursing profession continues to face shortages due to lack of potential educators, high turnover, and inequitable distribution of the workforce (Sawaenqdee et al., 2016).

The new graduate nurse turnover rate has not been calculated at the project site for this study; however, according to nurse recruiters at the project site, there has been a consistent nursing shortage when new graduate nurses are started in the hospital, especially when placed on specialty units. Additionally, best practices for graduate nurse placement have not been researched, and no evidence-based practice guidelines have been established. This gap-in-practice initiated the use of the Prophecy job fit predictor. The data obtained from the Prophecy job fit predictor aids nurse recruiters and unit managers when hiring new graduates, as it enables managers to make better-informed decisions about nurse candidate placement (Prophecy, 2018). This project was conducted to determine whether clinical unit placement contributes to new graduate nurses' job satisfaction and decreases turnover in a multihospital system, which can provide managers and nurse recruiters guidelines for counseling new graduates after hiring and provide direction when placing new graduate nurses in specialty units.

In today's healthcare system, practitioners rely on evidence-based research to ensure that best practices are being used in any health care setting (Leung, 2014). However, hospitals across the country may or may not have guidelines in place for job fit. It is important to create guidelines to transition new graduate nurses into the profession, but this process does not always occur, causing difficulty for graduate nurses

adjusting to the new role (van Rooyen, Jordan, Ten Ham-Baloyi, & Caka, 2018). New nurses may face challenges with performing clinical skills accurately, which affects the quality of patient care (van Rooyen, 2018). Due to the uncertainty felt by many graduate nurses, improvement measures should be implemented that guide job placement during the initial phases of job entry are critical (Lleixá Fortuño, 2010).

Purpose Statement

Incremental steps have been taken toward achieving better quality of care for patients in the United States; however, minimal advances have been initiated to ensure new graduate nurses have optimal job placement (Ackerson, 2018). Evaluation of this existing quality improvement initiative at the project site is due to uncertainty if the Prophecy job fit predictor guides nurses into their best fit hospital unit and increases nursing satisfaction resulting in nurse retention. Because no best practice guidelines have been established for graduate nurse placement, the purpose of this project was to address this gap-in-practice for new graduate nurses and specialty placement upon hiring. The guiding practice-focused question for this doctoral project was: Are satisfaction rates of recently graduated registered nurses influenced by their unit placement being based on the Prophecy (2018) job fit predictor? To answer the practice-focused question, I measured the satisfaction of new graduate nurses and analyzed data percentages from the Prophecy job fit predictor to explain its impact.

Newly hired nurses experienced a positive influence on their future employment choices when they receive administrative support during clinical placements and assistance with future career planning (Boyd-Turner, Bell, & Russell, 2016). Nurses who

are on a unit with high acuity and responsibility feel comfortable if they are on their best fit unit compared to those who are not on their best fit unit. Nurse leaders are held accountable for staffing units at adequate levels to provide safe patient care (Fitzpatrick, 2017). When an organization achieves employee satisfaction, patient-centered can be delivered across the continuum that provides seamless, affordable, and quality care (Polit, 2008). Personal characteristics and situational factors influence new graduate nurses' satisfaction with the practice environment (Hussein, 2016). Completing the Prophecy job fit predictor will allow new graduate nurses to be assigned to specialty units where their clinical skills and temperament are compatible with the unit. Empowering new graduate nurses by placing them in appropriate work environments may help increase nurse job satisfaction, improve patient care quality, and reduce burnout (Kenny, Reeve, & Hall, 2016; Perry, 2018). This project may address the gap-in-practice of undeveloped unit placement guidelines for new graduate nurses by analyzing the Prophecy job fit predictor and determining if it impacts new graduate nurse satisfaction rates creating a best practice for placement. The positive social change that may come about from this project is establishing an evidence-based practice for placement of new graduate nurses being hired in best fit units after graduation and eliminating this gap-in-practice.

Nature of Doctoral Project

I completed a literature review using the OVID, MEDLINE, and CINAHL databases, and I engaged with clinicians (nurse managers, nurse educators, clinicians) within the administration, education, and orientation programs to find the problem and support the premise of the project. This best fit project was an evaluation of an existing

quality improvement initiative using the revised Casey-Fink graduate nurse experience survey (Casey, Fink, Krugman, & Propst, 2004) and the Prophecy job fit predictor, which is a quality improvement tool that measures behavioral attributes along with clinical competencies and then determines appropriate job fit for new nurses(Prophecy, 2018). The Casey-Fink graduate nurse experience survey consists of five focus areas: demographic information, skills/procedure performance, comfort/confidence, job satisfaction dimensions, and work environment and difficulties in role transition. This survey takes 15 to 20 minutes to complete (Casey et al., 2004). Surveys are a cost effective and easy way to collect data to evaluate if desired outcomes are being met (Leung, Trevena, & Waters, 2014) and can provide insight on hospital issues. For example, Murgia (2011) used a survey to assess nurse satisfaction and determined that stress is a main contributor for increasing staff turnover and diminishing work satisfaction that can result in reduced patient quality and quantity of care.

The hospital sites where this best fit project were conducted collects data from graduate nursing students after a cohort has completed nursing orientation to include the Prophecy job fit predictor and the Casey-Fink graduate nurse experience survey. The results from the initial, 6-month, and 12-month Casey-Fink graduate nurse experience surveys were used to assess nursing satisfaction. The hospital provided deidentified data they collected during their quality improvement initiative for evaluation of the Prophecy job fit predictor. Data show only unit placed and job fit percentage. Inferential analysis was done to compare the mean Prophecy best fit predictor analysis scores of the cohort of graduate nurse students placed in three hospitals to see if there were statistical

differences. These results were then analyzed to compare new graduate nurse satisfaction rates and whether the new graduate nurses were placed in their best fit unit. Nurse managers and other health care recruiters may apply the results of this project to their hiring practices and improve the retention of new graduate nurses.

Significance

Steps have been taken toward achieving better quality of care for patients; however, minimal advances have been initiated to ensure new graduate nurses have optimal job placement (Ackerson, 2018). Contrary to placing new graduate nurses on their best fit units, hospitals may place new graduate nurses according to hospital vacancy and need (Lleixá Fortuño, 2010). The Prophecy job fit predictor calculates a best fit percentage for new graduate nurses and determines the specialty units where their clinical skills and temperament are best fit with the unit; therefore, determining whether the best fit predictor correlates to nursing satisfaction can provide guidance for graduate nurse placement policies. This analysis has implications for positive social change by improving nursing satisfaction rates, which can decrease nursing shortages, reduce turnover, and improve nurse retention on their assigned units.

This project has received organizational support by clinical system coordinators, Prophecy leaders, nurse recruiters, managers, and staff. Having stakeholders support the implementation of the project will improve use of the tool, provide a sense of direction, and help accomplish the goals and objectives of the quality improvement initiative (Kettner, 2017). Actions of support can also reduce or eliminate challenges by encouraging use of the survey results and support of the project (Jiwan, 2018). The

stakeholders in this project include the chief nursing officer, directors of nursing units, unit managers, charge nurses, and staff nurses. Chief nursing officers and directors could reduce the cost of onboarding and orientation if nurses are placed in their best fit unit and satisfied. The average cost for new graduate nurse orientation is $14,558 per nurse (Reiter, 2008), so reducing the number of nurses who have to be oriented or reoriented can impact organizational costs. If nurses are satisfied with the hospital unit where they are hired, they will be less likely to quit or transfer, which would require replacement and additional onboarding costs to the hospital.

The potential contributions of the best fit project are to share the analysis and results with hospital chief executive officers, nurse managers, and nurse recruiters to validate or challenge the current quality improvement practices. This project may provide evidence-based data for the use of Prophecy job fit predictor when assigning new graduate nurses to hospital units. Having statistical evidence from this DNP project can contribute to local nursing practice and provide potential guidelines for transferability to similar practice areas. Many hospitals use quality improvement tools to help stimulate and support improvements in the quality of care delivered (Centers for Medicare and Medicaid Services, 2017). Thus, transferability can be established hospitals in the area, contributing to additional research efforts in improving nursing satisfaction rates and decreasing turnover.

Summary

Many hospitals and clinics are moving toward quality improvement programs to orient and evaluate new nursing staff (Eckerson, 2018). However, there is not a

standardized hiring process for new graduate nurses who will be assigned to specialty units. In this DNP project, I addressed this gap-in-practice by evaluating an existing quality improvement project specific to new graduate nurse job placement and nursing satisfaction. Evaluating this quality improvement initiative will support creating a best practice guideline for placement of new graduate nurses. When nurse leaders and recruiters can place new graduate nurses in their best fit specialty this practice will allow consistency in placing nurses and support retention of nurses. In Section 1, I explained the rationale and purpose of this quality improvement project. In Section 2, I will review conceptual frameworks and theories that I used as a basis for my analysis.

Section 2: Background and Context

Introduction

Graduate nurses are leaving the profession within their first year of practice, contributing to high turnover rates and the national nursing shortage (National Council of State Boards of Nursing, 2018). The practice-focused question for this doctoral project was "Are nursing satisfaction rates of recently graduated registered nurses influenced by their unit placement being based on the Prophecy job fit predictor?" The purpose of this doctoral project was to evaluate graduate nurse satisfaction with their placement in hospital units based on results from the Prophecy (2018) job fit predictor and the Casey-Fink survey (Casey et al., 2004). In this section, I will address the concepts and models to guide the project and discuss the best fit project's relevance to nursing practice, local background, and my role as a DNP student.

Concepts, Models, and Theories

The Institute for Healthcare Improvement (2016) developed a framework for quality improvement projects called the plan, do, study, and act (PDSA) method. This method is designed to supplement an organization's existing change model and produce a more efficient clinical practice, allowing organizations to continue to develop plans to test the quality improvement change, analyze data, and then determine what modifications need to be made (Institute for Healthcare Improvement, 2016). I used the PDSA model to revise the quality improvement initiative as needed according to the evaluation done in this DNP project. When using the PDSA with this project, I followed the steps to make policy recommendations and updates according to the gathered results.

The plan and do phases have already been implemented, as reflected by the organization's implementation of the Prophecy job fit predictor. The study phase began with the analysis of the data generated from this project. The act phase of this model will be carried out by the organization following completion of this project and will be based on the recommendations that are produced from the data analysis. The PDSA approach was the most appropriate method to collect data and provide evidence of the impact of the job fit predictor and nursing satisfaction because it helped determine whether the change led to an improvement. The evaluation plan includes an impact evaluation to help determine if the program has met its goal.

In addition to the PDSA approach, I used Herzberg's two factor theory to justify the need to address new nurse satisfaction and turnover rates. According to the theory, certain characteristics of a job are consistently related to job satisfaction: achievement, recognition, the work itself, responsibility, and advancement growth (Savoy & Wood, 2015). The three elements of Herzberg's theory that relate to the Prophecy job fit predictor and nursing satisfaction are achievement, the work itself, and responsibility. A new graduate nurse who is not placed in their best fit unit will have issues with those elements and, according to Herzberg's theory, will not be satisfied, causing them to quit or transfer, impacting nurse retention.

Definition of Terms

The following terminology and associated definitions are provided to enhance reader familiarity with nursing terms unique to this project.

Casey-Fink graduate nurse survey: Surveys generated by Vizient and distributed by the best fit project site that evaluates five focus areas: demographic information, skills/procedure performance, comfort/confidence, job satisfaction dimensions, and work environment and difficulties in role transition. These surveys contain information about the satisfaction of the graduate nurses and were used to provide descriptive statistics.

Prophecy job fit predictor: An assessment that generates reports that calculates a best fit percentage for new graduate nurses and determines the specialty units where their clinical skills and temperament are best fit.

Best fit unit: From the Prophecy job fit predictor data, the "best fit" is considered 80% or greater.

Relevance to Nursing Practice

Nursing shortages create issues for patients, families, and hospitals. The project site for this best fit project and local hospitals in the area are experiencing a nursing shortage (Texas Nursing Workforce Reports, n.d.). More than 1 million nurses are expected to retire in the next 10 to 15 years, so retaining nurses is important to help with the nurse shortage (Ackerson, 2018). The Bureau of Labor Statistics estimates that there will be 1 million job openings for registered nurses by 2024, making the nursing shortage worse (American Association of Colleges of Nursing [AACN], 2018). Turnover rates for nurses during the first 2 years of practice are higher than overall nursing retention rates. According to national research study conducted in 2017, 25% of first year nurses and 23% of second year nurses will leave the profession impacting workplace attrition (Nursing Solutions, 2017). New graduate nurses must transition into practice and many

find this adjustment stressful and difficult. This high turnover rate could be attributed to job dissatisfaction if nurses were assigned to a specialty unit that was not a good job fit. Advancement in nursing placement and job fit is one method that, if improved by evidence-based nursing practices, will impact nursing care, nurse recruitment, and nursing practice across the country for new graduate nurses (Boyd-Turner et al., 2016).

After hospital stakeholders conducted a needs assessment at the project site, it was determined that a gap in nursing practice was present at the health care facility and may be influencing nurse retention, thus adding to the shortage of nurses. The current state of nursing practice in this area is obsolete, there is not a best practice guideline for new graduate nurse placement, which led to the implementation of the Prophecy (2018) job fit predictor quality improvement initiative at the project site in 2015. However, no studies have been conducted up to this time to evaluate the impact of the predictor recommendations. No strategies or standard practices have been tried to address this issue. The goal of this best fit project was to create standard practice recommendations to address this gap-in-practice and to determine if the Prophecy job fit predictor has an impact on graduate nurse satisfaction. If successful, these findings can be disseminated and possibly create practice guidelines for on boarding new graduate nurses and improve retention rates.

Local Background and Context

The setting for this DNP best project was a large metropolitan multi hospital system that has both acute and critical care units including medical-surgical, trauma, intensive care, rehabilitation, pediatrics, and long-term acute care. In the state of Texas,

research shows a continued nursing shortage, even with legislation supporting nursing education (Texas Nursing Workforce Reports, 2016). Local evidence of the nursing shortage and high turnover rate state that new graduate nurses are a large percentage of the nurses who are leaving the profession (Texas Nursing Workforce Reports, 2016). The Texas Nursing Workforce Shortage Coalition reports that a nursing shortage will continue without graduate nurses filling the shortage gap (Texas Nursing Workforce Reports, 2016). The American Association of Colleges of Nursing, National Council of State Boards of Nursing, and Institute for Healthcare Improvement are organizations that established a relationship of graduate nurse transition in the workforce and current policies and recommendations for new nurses. However, at this time no state or federal guidelines address new graduate nurse unit placement they focus on orientation techniques (Akerson & Stiles, 2018). The guiding practice-focused question for this doctoral project was "Are satisfaction rates of recently graduated registered nurses influenced by their unit placement being based on the Prophecy job fit predictor?" The project site mission focuses on advancing health care by bringing together all aspects of the health system - care delivery, physicians, and health solutions to create an evidence based integrated health system. The project site currently utilizes the operational process of the Prophecy (2018) job fit software to assist with the placement of new graduate nurses in appropriate units after employment, applying evidence-based practices to orientation and hiring processes. Prophecy job fit predictor (2018) measures specialty fit for new graduate nurses by objectively identifying which clinical areas they will be most successful in. Each graduate nurse receives a percentage of specialty fit for each clinical

area. For example, a nurse might have a 78% fit for the intensive care unit, a 57% fit for the medical surgical unit, and a 35% fit for the emergency room. The nurse in this example should be placed in the intensive care unit and have a high satisfaction rate. To validate this quality improvement initiative, an evaluation of the Prophecy job fit predictor was conducted to explain the impact of the Prophecy (2018) job fit predictor in relation to job satisfaction. Placing nurses into the best fit practice environment along with addressing modifiable situational factors influence nurse satisfaction and reduce nurse turnover (Hussein, et al., 2016). Prophecy analytics provide a predictive guide that recommends specialties that new graduate nurses would be most successful in based on their clinical knowledge and behavioral attributes (Prophecy, 2018).

Role of DNP Student

As a future DNP-prepared nurse, I want to transform healthcare by contributing to nursing scholarship. DNP graduates can influence healthcare by participating in leadership roles, becoming active stakeholders, and initiating innovative system developments by evaluating and analyzing health care improvement (Kendall, 2013). I am currently a nurse educator in a Bachelor of Science in nursing program and want graduate nurses to be successful after they graduate. Many new nurses are uncertain about nursing roles, responsibilities, and in what clinical specialty they should begin their nursing career. My role in the DNP project was to analyze data that influences the placement of graduate nurses and creates best practice guidelines for the institution.

Walden University defines positive social change as a deliberate process of creating and applying ideas, strategies, and actions to improve human and social

conditions. The best fit project can create a positive social change with this data and reduce turnover and nursing shortage if a best practice guideline for graduate nurse placement is established. I am passionate about nursing education and the advancement of graduate nurse transition into the workplace. The AACN (2006) states the importance of nursing scholarship is to translate, integrate, and disseminate information to improve health care. As defined by the AACN (2006), nursing scholarship involves activities that advance the practice of nursing through thorough analysis that is significant to the profession and can be documented, replicated, or elaborated. The evaluation of practice, quality improvement, and reliability of practice are mandated by government and healthcare officials and educating healthcare officials on relevant and current evidence-based information will promote patient and safety outcomes.

In today's healthcare system, practitioners rely on evidence-based practices to ensure that best practices are being utilized in any health care setting. This DNP project questioned if the use of the Prophecy job fit placement predictor correctly identifies the units that new graduate nurses will learn, thrive, and ultimately be successful in. The positive social change will be redefining the social norm of all new graduates being placed in any hospital unit based strictly on interviewer opinion or hospital nurse vacancy. By establishing evidence-based practice guidelines on graduate nurse unit placement it will provide consistency upon hiring new nurses. As a nurse educator and graduate nurse advocate, I may have personal biases toward creating policies for graduate nurse placement. However, I will rely on raw data, statistical analysis, and research during this project to guide my recommendations. Proper placement should improve

graduate nurse satisfaction and result in improved patient outcomes and turnover and burnout rates (Perry, 2018). A study conducted by Hussein (2016) concluded that personal characteristics and situational factors influence new graduate nurses' satisfaction with the practice environment. Completing this evidence-based practice project within the project site evaluated the quality improvement initiative that was implemented based on a needs assessment.

Summary

The purpose of this DNP best fit project was to analyze the impact of the Prophecy job fit predictor on graduate nursing satisfaction in their current hospital setting. Policies have not been adapted to guide best practice and this gap in practice led to the Prophecy quality improvement initiate. Placing graduate nurses in their best fit specialty can contribute to improving nursing satisfaction. Nursing satisfaction has been linked to knowledge and use of professional competencies (de Souza Moreira, 2018). The concepts that were utilized to evaluate current practice was the PDSA method and the Herzberg's two factor theory. To correct this identified gap-in-practice, collection and analysis of the results from the quality improvement initiative can provide support for future placement practices and determine if the Prophecy job fit predictor improves graduate nurse satisfaction. The collection and analysis of Prophecy job fit predictor data and Casey-Fink graduate nurse survey results will be described in section 3.

Section 3: Collection and Analysis of Evidence

Introduction

The nursing shortage can be contributed in part to a high graduate nurse turnover rate (National Council of State Boards of Nursing, 2018), but research has illustrated that facilities with high nursing satisfaction have high nurse retention (Coleman, 2018). Thus, the purpose of this best fit project was to identify whether nurse clinical unit placement contributes to new graduate nurses' job satisfaction. This section of the paper will include (a) the practice focused question, (b) the sources of evidence, (c) the archival and operational data, and the (d) analysis and syntheses for this DNP best fit project.

Practice-Focused Question

There are limited quality improvement initiatives and research around graduate nurse placement. But the project site identified a problem with nursing shortages on specialty units and began the quality improvement initiative using the Prophecy job fit predictor. With no practice guidelines in place for new graduate nurse placement upon hire, the quality improvement initiative was established to form baseline information to create policies and guidelines for leadership when hiring new graduates. The guiding practice-focused question for this doctoral project was "Are satisfaction rates of recently graduated registered nurses influenced by their unit placement being based on the Prophecy job fit predictor?"

Operational definitions include the Casey-Fink survey, which is a survey used to provide statistics on demographic information, skills/procedure performance, comfort/confidence, job satisfaction dimensions, and work environment and difficulties

in role transition; Prophecy job fit predictor, which helps determine the specialty units where their clinical skills and temperament are best fit; and best fit unit, which is considered 80% or greater from the Prophecy job fit predictor data.

Sources of Evidence

The sources of evidence used to address the practice question include literature related to nurse satisfaction, retention, and Prophecy job fit gathered from a database search of CINAHL, OVID, and MEDLINE. Key words included *graduate nurse*, *satisfaction*, *nursing shortage*, *retention*, and *turnover*. Sources of evidence were also obtained from the AACN, Vizient, National Council of State Boards of Nursing, Prophecy, and Institute for Healthcare Improvement. Vizient and Prophecy are the project site databases that collect and store the Casey-Fink graduate nurse survey results and the Prophecy job fit predictor data. The AACN, National Council of State Boards of Nursing, and Institute for Healthcare Improvement are organizations that established a relationship of graduate nurse transition in the workforce and current policies and recommendations for new nurses. The scope of this review was concentrated over the last 8 years.

The evidence was used to support the results of the analysis of the relationship between Prophecy job fit data and nursing satisfaction. The project site collects and calculates the Prophecy job fit predictor data and gives the Casey-Fink Survey to graduate nurses once they complete an initial application. The hospital provided deidentified data they collected during their quality improvement initiative for evaluation. The graduate nurse names were excluded; only assigned unit and Prophecy score along

with satisfaction rates were disclosed. These results of the Prophecy job fit predictor data were analyzed to compare new graduate nurse satisfaction rates of nurses who were placed in their best fit unit. The analysis and findings will inform leadership and stakeholders of the impact of Prophecy job fit predictor on nursing satisfaction and may establish evidence-based policy guidelines on best practices for new graduate nurse placement.

Archival and Operational Data

The nature of this project is an evaluation of an existing quality improvement initiative that was completed by analyzing Prophecy job fit predictor data and the Casey-Fink graduate nurse survey data. Walden University IRB and organizational approval were obtained prior to evaluation of the survey and predictor results (approval no. 04-19-19-0126051). Prophecy is a quality improvement tool that measures behavioral attributes along with clinical competencies, which is used to determine appropriate job fit for new nurses (Prophecy, 2018). The Casey-Fink graduate nurse survey is a tool that evaluates nurse satisfaction rates.

The data were obtained from the project site that was originally collected from one cohort of 54 graduate nurses placed in three hospital sites in six different specialty units. Prophecy job fit data and Casey-Fink nursing satisfaction data were gathered through nurse resident program participation. Data were recorded in specified intervals—initial, 6 months, and 12 months—and are stored electronically via Vizient, and the Prophecy website. Access is password protected and can only be authorized by approved leadership and personnel to maintain confidentiality. Permission to access operational

data from Prophecy and Vizient was granted by the project site IRB and nursing administration. The primary outcomes to be measured during the project was the impact of the Prophecy job fit predictor on nursing satisfaction as assessed with the Casey-Fink survey. This data supported the outcome of the project.

Analysis and Synthesis

The program used for recording, organizing, and analyzing the data obtained from the Prophecy job fit predictor and the Casey-Fink survey evidence include SPSS (2018) data to perform a descriptive analysis with graphs of the percentages for the three hospitals where the cohort of graduate nurses were placed and then compare the three figures using inferential analysis. The graph illustrates the findings from a one-way ANOVA where a comparison of the mean Prophecy best fit predictor analysis scores of the three hospitals will determine if there are any statistical differences. Analytic methods were used to draw inferences from the data. If any outliers existed they were defined and excluded from the analysis. Ethical considerations, such as the right to privacy, protection from harm, and voluntary consent, do not apply to quality improvement projects because the participants are not regarded as research subjects. There was no requirement for the graduate nurses to reveal their individual identity, de-identified data was provided by the facility. Data was collected by cohort. Each participant and cohort received an assigned random number for correlation for the Prophecy predictor job fit placement data and Casey-Fink graduate nurse experience survey. The correlation was based on the cohort of graduate nurses, hospital site, what hospital unit they were placed, and Prophecy predictor job fit placement data. A systematic analysis was conducted from the Prophecy

job fit data in comparison with the results of the Casey-Fink graduate nurse experience survey. An analysis was conducted to review the percentage of the cohort that was placed in their best fit specialty and the cohort overall nursing satisfaction rate. The data is stored and protected by the hospital site via a quality improvement product website that is password encrypted and can only be viewed with authorized access. An Education Resource Specialist accessed data and provided de-identified information by creating random assigned numbers for analysis.

Summary

The purpose of this DNP project was to evaluate an existing quality improvement initiative by analyzing the Prophecy job fit predictor and the Casey-Fink graduate nurse experience surveys. To analyze the Prophecy quality improvement initiative, an evaluation of the Prophecy job fit predictor was conducted to explain the impact of the Prophecy (2018) job fit predictor in relation to job satisfaction. The percentage of a cohort that was placed in their best fit unit and the cohort overall nursing satisfaction rate using the revised Casey-Fink graduate nurse experience survey was analyzed. A systematic analysis of Prophecy job fit data in comparison with Casey-Fink survey data was conducted. The primary outcomes to be measured during the project were the effectiveness and impact of the Prophecy job fit predictor on nursing satisfaction as assessed by the Casey-Fink survey. The results from the data analysis will then be used to answer the practice-focus question. The findings and recommendations that will be explained in Section 4, will be disseminated to nursing leaders and nursing management within the project site.

Section 4: Findings and Recommendations

Introduction

The local problem that I addressed in this project was the high turnover rates among new graduate nurses by evaluating the impact of the Prophecy (2018) job fit predictor on nursing satisfaction rates of recently graduated (within 6 months) registered nurses. The U.S. Bureau of Labor Statistics (2018) has projected that 1.1 million additional nurses will be needed to avoid a continued shortage in health care. The nursing profession continues to face shortages due to lack of potential educators, high turnover, and inequitable distribution of the workforce (Sawaenqdee et al., 2016). The new graduate nurse turnover rate had not been calculated at this project site; however, according to nurse recruiters at the project site, there had been a consistent nursing shortage when new graduate nurses were placed on specialty units. Best practices for graduate nurse placement had not been researched, and no evidence-based practice guidelines had been established.

This lack of research on job fit and placement left a gap-in-practice, so the Prophecy job fit predictor was implemented to use when guiding nurse recruiters and unit managers when hiring new graduates. The purpose of this doctoral project was to provide data that can be used to encourage policy development for graduate nurse placement. The sources of evidence used to address the practice question included a literature review related to nurse satisfaction, retention, and Prophecy job fit. Literature were obtained through a search of CINAHL, OVID, and MEDLINE. Key words included *graduate nurse, satisfaction, nursing shortage, retention,* and *turnover*. Other organizations that

provided sources of evidence are the AACN, Vizient, National Council of State Boards of Nursing, Prophecy, and Institute for Healthcare Improvement. The data obtained from the Prophecy job fit predictor and the Casey-Fink survey provided evidence for analysis. The program used for descriptive analysis, which involved recording, organizing, and analyzing the evidence, was SPSS (2018).

Findings and Implications

Approximately 25% of new nurses leave a position within their first year of practice (National Council of State Boards of Nursing, 2018). Increased turnover influences patient safety and health care outcomes. However, the Prophecy job fit predictor assessment data has enabled managers to make better-informed decisions about nurse candidate placement and success. The goal of this DNP project was to identify if job placement contributed to new graduate nurses' satisfaction. This DNP project may impact the field of nursing by providing managers and nurse recruiters guidelines for counseling new graduates after hiring and provide direction when placing new graduate nurses in specialty units. To answer the question of whether the Prophecy job fit predictor improved graduate nurse satisfaction in specialty units, I measured nurse satisfaction and will describe the impact of the Prophecy job fit indicator.

Data Analysis

The guiding practice-focused question for this doctoral project was "Are nursing satisfaction rates of recently graduated (within 6 months) registered nurses influenced by their placement being based on the Prophecy job fit predictor?" There were 54 nurse graduate participants in the cohort at three different hospital locations. The

measurement of nursing satisfaction rates for new graduate nurses was done on a Likert scale to evaluate the Casey-Fink Graduate nurse survey results. The mean rating of the Casey-Fink graduate nurse survey is presented at initial, 6 months and 12 months for each hospital location where the nurse graduate participants were placed (Figures 1-6).

Figure 1. Specialty unit satisfaction for Hospital A.

Figure 2. Overall unit satisfaction for Hospital A. Overall unit satisfaction, 3.25 below benchmark of 3.26.

Figure 3. Specialty unit satisfaction for Hospital B.

Figure 4. Overall unit satisfaction for Hospital B. Overall unit satisfaction, 2.5 below benchmark of 3.26.

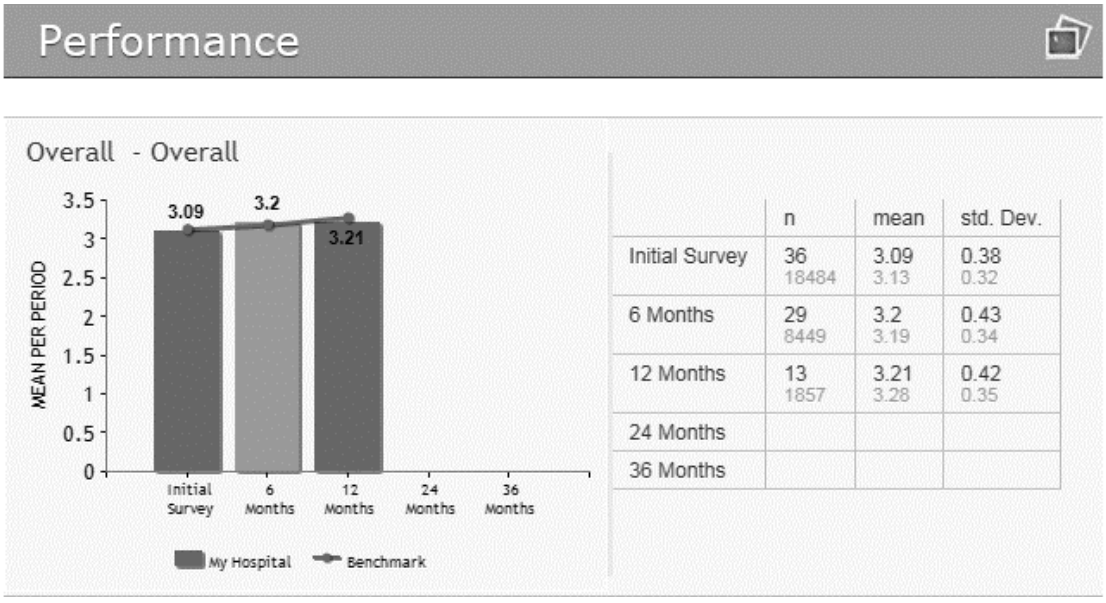

Figure 5. Specialty unit satisfaction for Hospital C.

#19.I am satisfied with my chosen nursing specialty.		3.33 3.37	3.14 3.21	3.08 3.26		

Figure 6. Overall unit satisfaction for Hospital C. Overall unit satisfaction, 3.08 below benchmark of 3.26.

From the Prophecy job fit predictor data, the best fit is considered 80% or greater. For Hospital A, 58.33% (14 out of 24) graduate nurse residents were placed in their best fit specialty (see Figure 7). Two nurse residents were excluded because no prophecy predictor assessment is available for their specialty unit. This unanticipated limitation did not have an impact on the findings. Hospital A's best fit placement percentage had a 12 month mean satisfaction score of 3.34. At Hospital B, 20.00% (2 out of 10) graduate nurse residents were placed in their best fit specialty (see Figure 7). Hospital B's best fit placement percentage had a 12 month mean satisfaction score of 3.1. Finally, at Hospital C, 33.33% (6 out of 18) graduate nurse residents were placed in their best fit specialty (see Figure 7). Hospital C's best fit placement percentage had a 12 month mean satisfaction score of 3.1. Overall, results showed that a correlation between best fit and mean satisfaction score was established.

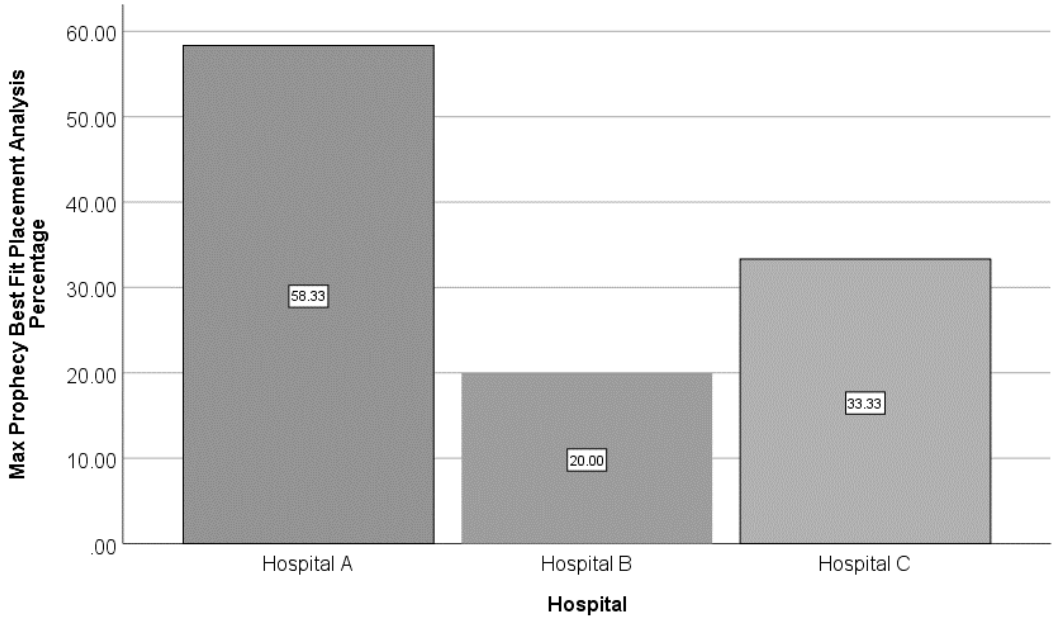

Figure 7. Bar graph illustrating the 80 percent and above best fit participants at each hospital.

The best fit placement analysis scores were in ratio form and the participants formed three independent groups at the three hospital locations. The best inferential test to examine any statistically significant differences among the best fit placement analysis scores is a one-way ANOVA (Sheskin, 2011). The ANOVA was run, and a statistically significant omnibus test was found at F (2, 50) = 3.328, p = 0.044 (see Table 1). In Table 2, Tukey post hoc tests revealed there were significant mean differences between Hospital A (82.30) and Hospital B (68.60). There were no other significant mean differences between hospitals (see Figure 8).

Table 1

Tests of Between-Subjects Effects

Source	Type III Sum of squares	*df*	Mean Square	F	*p*
Hospital	1528.799	2	764.400	3.328	.044
Error	11484.220	50	229.684		
Total	323718.000	53			

Table 2

Tukey Post Hoc Test Among Means

Hospital	*N*	Subset	
		1	2
Hospital B	10	68.600	
Hospital C	20	73.9500	73.9500
Hospital A	23		82.3043

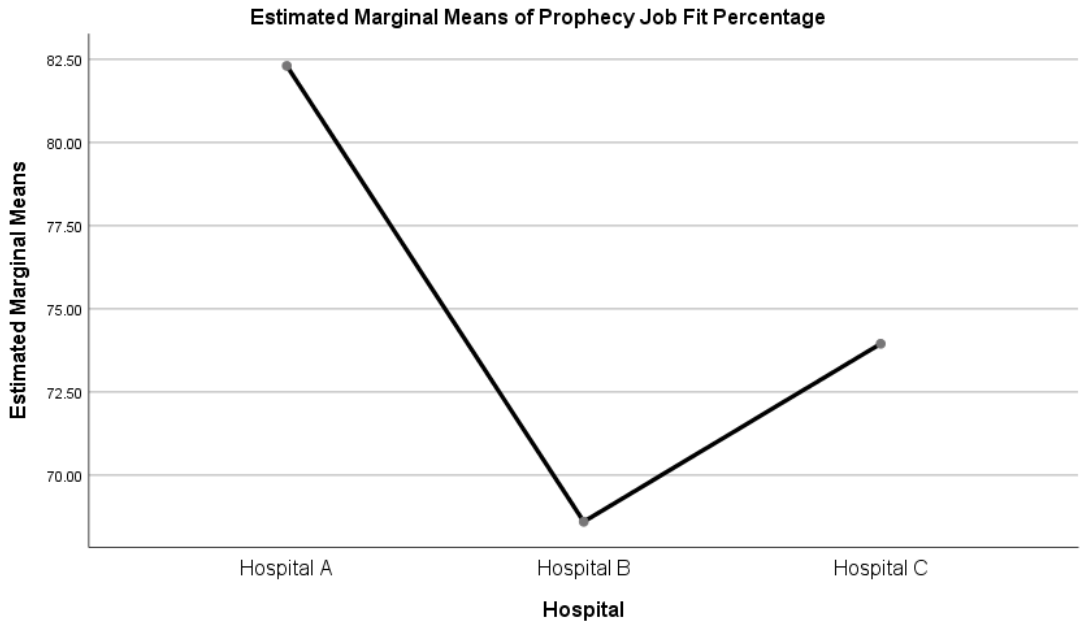

Figure 8. Mean plot for three means among the hospitals.

The outcome from the project demonstrated that the placement of graduate nurses utilizing the Prophecy job fit predictor can influence satisfaction rates which can provide newly hired graduates specific information for their best fit specialty. The outcome from the project also demonstrated that the utilization of the Prophecy job fit predictor can provide guidance and can increase knowledge about nurse satisfaction and its relevance to their clinical practice unit. Based on the outcome of the DNP project, the evidence-based information gathered can benefit the individual graduate nurse as they transition into the workforce by providing direction and guidance. The impact of the Prophecy job fit predictor can also be shared within the community hospital, to gain more insight about job placement and nursing satisfaction in the community setting. The potential implication for the use of the Prophecy job fit predictor being used for all new graduate nurses will allow modification in practices

and policies, allowing the health care system to take a more active role in nurse placement and retention strategies. The implications from this doctoral project study in regard to social change is that it has the potential to improve nursing practice by establishing baseline data for best practice guidelines for new graduate nurses.

Recommendations

Best practice guidelines have not been established for placement of new graduate nurses upon hiring. The proposed solution that will address this gap-in-practice is creating a policy including the best practice guidelines that will put into effect the use of the Prophecy job fit predictor when assigning graduate nurses to their hospital setting. This DNP project was able to support the use of the Prophecy job fit predictor. The outcome information will also provide valuable information for developing future programs to improve graduate nurse satisfaction. Demands on our healthcare system make it imperative for nurses to contribute to evidence based practices to improve health care and reduce the nursing shortage.

Strengths and Limitations of the Project

The goal of this quality improvement project was to evaluate the impact of the Prophecy job fit predictor on graduate nurse satisfaction. One strength of this project is that the Prophecy job fit predictor and Casey-Fink graduate nurse survey were already being implemented at the project site and many hiring nurses were currently utilizing the data that it provides. The DNP nurse leader can create new guidelines and improve the graduate nurse experience. According to Albanese et al. (2010), “Data become more relevant when nurses realize that improvements in one quality indicator results in

subsequent positive changes in another" (p. 240). By providing statistical evidence of the impact of the Prophecy job fit predictor it supports the quality improvement initiative. The data obtained from this evaluation project enables the stakeholders to make an informed decision when defining best practices and modifying policies.

A limitation of the project is the small size, only one cohort of 54 graduate nurses was analyzed during this project. Therefore, the outcomes of this DNP project cannot be generalized. Another limitation of the project is that it is not a research study and a true cause and effect relationship cannot be assumed or established. Future recommendations include conducting a longitudinal research study to allow more time to focus on the impact of the Prophecy job fit predictor and establish a more definitive cause and effect relationship.

Section 5: Dissemination Plan

After my DNP project analysis is shared with stakeholders and experts, the final draft will be developed into a poster presentation. I will be presenting the analysis of the Prophecy job fit predictor and Casey-Fink graduate nurse satisfaction survey by using a poster presentations because they have been shown to increase knowledge and confidence for nurses (Ilic & Rowe, 2013). The poster presentation will be available for nurse managers, nurse recruiters, and leadership within the organization. When presenting information to various specialties and levels of nurses, poster presentations are easy to understand by providing charts and diagrams that help to explain difficult statistical data and concepts. I plan to display my poster at a leadership meeting at the project site, which will be convenient for nurses to approach the poster and look it at their leisure, determine whether they want to know more, and ask questions (Rowe & Ilic, 2015).

Sharing my research will contribute to evidence-based research. Part of the responsibility of a scholar–practitioner is to contribute to the science of nursing and become a leader in the profession. *Change* is defined as the transformation of tasks, processes, methods, structures, and relationships that are necessary for organizational survival (White, Dudley-Brown, & Terhaar, 2016). Nurse leaders have the responsibility to ensure that positive change is occurring at the organization and this can occur with disseminating my DNP project. Future dissemination at local and national conferences will allow many nurses to review the analysis and findings from this DNP project.

Analysis of Self

The importance of nursing scholarship is to translate, integrate, and disseminate information to improve health care (AACN, 2006). The evaluation of practice, quality improvement, and reliability of practice are mandated by government and healthcare officials educating them on relevant and current evidence-based information promoting patient and safety outcomes. The dissemination of quality initiatives and projects provides a means of sharing information so that fellow health care professionals, health administrators, and policy makers can learn from each other. They can use the gained knowledge to develop or adapt research that will contribute to advancing evidence-based practice to improve nurse residency programs, orientation, and hiring practices. An example of scholarship that demonstrates the role of the DNP-prepared nurse is translating evidence into practice.

As a nursing leader, I can contribute to making a difference by incorporating evidence-based practice into organizational policies to ensure that best practices are being used in all departments of the health care system. Further, nursing scholarship involves activities that can advance nursing practice through significant research that can inspire further research (AACN, 2006). As a scholar–practitioner, I used evidence-based practice to advance nursing practice and translate evidence into practice to improve patient and health outcomes (Zaccagnini & White, 2014). The results of this quality improvement project provide information that will guide policy making and best practice guidelines. The benefits of practice guidelines include developing an evidence-based consensus of the best practices, consolidating sources of information regarding outcomes, and

preparing information into a usable format for practitioners (Cross, Hardee, Jewell, 2001).

Summary

To conclude, the focus of this DNP project was the analysis of a quality improvement initiative to evaluate the impact of the Prophecy job fit predictor and graduate nurse satisfaction based on the Casey-Fink nurse survey. The nursing shortage is continuing to impact healthcare. According to the Bureau of Labor Statistics' Employment Projections 2014-2024, the registered nurse workforce is expected to grow from 2.7 million in 2014 to 3.2 million in 2024, an increase of 439,300 or 16%. The project brought an opportunity for the organization to evaluate the impact of the Prophecy job fit predictor and guide change for this growing workforce that can end shortages. The project involved reviewing the data from one cohort of graduate nurses that was placed in three hospitals at the project site. The results showed that there was a relationship between Prophecy job fit and nursing satisfaction. The hospital that placed the highest percentage of its graduate nurses in their best fit specialty had the highest satisfaction scores.

The results of this doctoral project demonstrated that the Prophecy job fit predictor during nursing orientation can guide nurses into the appropriate specialty unit and increase nursing satisfaction. The objectives of the DNP project were the measurement of nursing satisfaction rates of new graduate nurses and explanation of the impact of the Prophecy job fit predictor using descriptive analysis of the percentages. The dissemination plan for this doctoral project includes a 30-minute poster presentation to

various stakeholders sharing the results of the project. The social impact of this DNP project can influence the nursing shortage by using evidence-based practice in new nurse graduate placement to improve nursing satisfaction resulting in decreased turnover and burnout rates.

The data collected from this quality improvement project evaluation offers information related to developing best practice guidelines. It is recommended that further quality improvement initiatives and research related to Prophecy job fit predictor and Casey-Fink graduate nurse satisfaction survey be conducted. Continuing to apply evidence-based information to policies and best practice guidelines aligns with the goals and missions of the organization and contributes to nursing excellence.

References

Ackerson, K., & Stiles, K. A. (2018). Value of nurse residency programs in retaining new graduate nurses and their potential effect on the nursing shortage. *Journal of Continuing Education in Nursing, 49*(6), 282-288. doi:10.3928/00220124-20180517-09

Albanese, M. P., Evans, D. A., Schantz, C. A., Bowen, M., Moffa, J. S., Piesieski, P., & Polomano, R. C. (2010). Engaging clinical nurses in quality and performance improvement activities. *Nursing Administration Quarterly, 34*(3), 226-245. doi:10.1097/naq.0b013e3181e702ca

American Nurses Association. (2015). *Nursing informatics: Scope and standards of practice* (2nd ed.). Silver Springs, MD.

American Association of Colleges of Nursing. (2006). The essentials of doctoral education for advanced nursing practice. Retrieved from http://www.aacn.nche.edu/dnp/Essentials.pdf

Blegen, M., Spector, N., Lynn, M. R., Barnsteiner, J., & Ulrich, B. T. (2017). Newly licensed RN retention: Hospital and nurse characteristics. *JONA: The Journal of Nursing Administration, 47*(10), 508-514. doi:10.1097/nna.0000000000000523

Boyd-Turner, D., Bell, E., & Russell, A. (2016). The influence student placement experience can have on the employment choices of graduates: A paediatric nursing context. *Nurse Education in Practice*, *16*(1), 263-268. doi:10.1016/j.nepr.2015.10.001

Casey, K., Fink, R., Krugman, M., & Propst, J. (2004). The graduate nurse experience.

Journal of Nursing Administration, 34, 303-311. doi:10.1097/00005110-200406000-00010

Centers for Medicare & Medicaid Services. (n.d.) (2017). Quality initiatives: Overview. Retrieved from https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HospitalQualityInits/OutcomeMeasures.html

Coleman, S. M. (2018). *Developing a nurse retention program aimed at reducing nursing turnover* (Doctoral dissertation). Retrieved from https://scholarworks.waldenu.edu/dissertations

Cross, H., Hardee, K., & Jewell, N. (2001). *Reforming operational policies: A pathway to improving reproductive health policies* (Occasional Paper No. 7). Retrieved from http://www.policyproject.com/abstract.cfm/706

de Souza Moreira, M. G., Xavier Morais, B., de Lima Dalmolin, G., & Antunes Dorneles, A. J. (2018). Perception of professional satisfaction of nursing workers from a hemato-oncology unit. *Journal of Nursing UFPE / Revista de Enfermagem UFPE, 12*(5), 1281-1288. Retrieved from https://periodicos.ufpe.br

Eckerson, C. M. (2018). The impact of nurse residency programs in the United States on improving retention and satisfaction of new nurse hires: An evidence-based literature review. *Nurse Education Today, 71,* 84-90. doi:10.1016/j.nedt.2018.09.003

Fitzpatrick, T. (2017). Using science to improve the art of staffing. *Nurse Leader, 15*(4), 246-250. doi:10.1016/j.mnl.2017.05.001

Hodges, B. C., & Videto, D. M. (2011). *Assessment and planning in health programs,*

(2nd ed.). Retrieved from https://bookshelf.vitalsource.com/#/books/9781449628307/

Hussein, R., Everett, B., Hu, W., Smith, A., Thornton, A., Chang, S., & Salamonson, Y. (2016). Predictors of new graduate nurses' satisfaction with their transitional support programme. *Journal of Nursing Managemen*t, *24*(3), 319-326. doi:10.1111/jonm.12321

Ilic, D., & Rowe, N. (2013). What is the evidence that poster presentations are effective in promoting knowledge transfer? A state of the art review. *Health Information & Libraries Journal, 30,* 4-12. doi:10.1111/hir.12015

Institute for Healthcare Improvement. (2016). Quality improvement. Retrieved from http://www.ihi.org/sites/search/pages/results.aspx?k=quality+improvement

Jiwon, S., Harrington, J., & Goodman, D. (2018). Understanding the link between organizational communication and innovation: An examination of public, nonprofit, and for-profit organizations in South Korea. *Public Personnel Management, 47*(2), 217-244. doi:10.1177/0091026018760930

Joshi, M. S., Ransom, E. R., Nash, D. B., & Ransom, S. B. (Eds.). (2014). *The Healthcare Quality Book* (3rd ed.). Chicago, IL: Health Administration Press.

Kendall-Gallagher, D., & Breslin, E. (2013). Developing DNP students as adaptive leaders: A key strategy in transforming health care. *Journal of Professional Nursing*, *29*(5), 259-263. doi:10.1016/j.profnurs.2013.06.009

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. doi:10.1016/j.nedt.2015.10.023

Kettner, P. M., Moroney, R. M., & Martin, L. L. (2017). *Designing and managing programs: An effectiveness-based approach* (5th ed.). Thousand Oaks, CA: Sage.

Kovner, C. T., & Djukic, M., (2009). The nursing career process from application through the first 2 years of employment. *Journal of Professional Nursing, 25*(4), 197-203. doi:10.1016/j.profnurs.2009.05.002

Labrague, L. J., & McEnroe, P. D. M. (2018). Job stress in new nurses during the transition period: An integrative review. *International Nursing Review*, *65*(4), 491-504. doi:10.1111/inr.12425

Leung, K., Trevena, L., & Waters, D. (2014). Systematic review of instruments for measuring nurses' knowledge, skills and attitudes for evidence-based practice. *Journal of Advanced Nursing, 70*(10), 2181-2195. doi:10.1111/jan.12454

Lleixá Fortuño, M., Gisbert Cervera, M., Marqués Molias, L., Albacar Riobóo, N., Monteso Curto, P., & Ferré Grau, C. (2010). What do future nursing professionals think about job placement? *Metas De Enfermería, 13*(6), 56-60.

Murgia, C., & Sansoni, J. (2011). Stress and nursing: Study to evaluation the level of satisfaction in nurses. *Professioni Infermieristiche, 64*(1), 33-44.

Nursing Solutions. (2017). *2017 National health care retention & RN staffing report.* Retrieved from https://www.emergingrnleader.com/wp-content /uploads/2017/09/ National HealthcareRNRetentionReport2017.pdf

Perry, S. J., Richter, J. P., & Beauvais, B. (2018). The effects of nursing satisfaction and turnover cognitions on patient attitudes and outcomes: A three-level multisource

study. *Health Services Research, 53*(6), 4943-4969. doi:10.1111/1475-6773.12997

Polit, D. F., & Beck, C. T. (2008). *Nursing research: Generating and assessing evidence for nursing practice* (8th ed.). Pennsylvania, PA: Wolters Kluwer Health/Lippincott Williams & Wilkins.

Prophecy Analytics. (2018). Prophecy definitions and purpose. Retrieved from http://www.aps-web.com/prophecy-analytics/

Reiter M. A., Young A., & Adamson C. (2008). Decrease new graduate nurse orientation costs by using HESI exit exam scores. *Nurse Educator, 33,* 102S-106S. doi:10.1097/01.ncn.0000336455.64445.fc

Rowe, N., & Ilic, D. (2015). Rethinking poster presentations at large-scale scientific meetings – is it time for the format to evolve? *The FEBS Journal*, *282*(19), 3661-3668. doi:10.1111/febs.13383

Savoy, C., & Wood, B. (2015). Perceptions of job satisfaction among radiation therapists in Louisiana. *Radiation Therapist, 24*(1), 11-21.

Sheskin, D. J. (2011). *Handbook of parametric and nonparametric statistical procedures* (5th ed.). Boca Raton, FL: Chapman & Hall/CRC Press.

Schaffer, M. A., Sandau, K. E., & Diedrick, L. (2012). Evidence-based practice models for organizational change: Overview and practical applications. *Journal of Advanced Nursing, 69*(5), 1197-1209. doi:10.1111/j.1365-2648.2012.06122.x

Terry, A. J. (2015). *Clinical research for the doctor of nursing practice*. Burlington, MA: Jones & Bartlett Learning.

Texas Nursing Workforce Reports. (2016). *Nursing supply and demand projections*. Retrieved from https://www.dshs.texas.gov/chs/cnws/Nursing-Workforce-Reports/

Texas Nursing Workforce Shortage Coalition. (2016). *The Texas nursing shortage: Condition critical. More graduates needed to close the gap.* Retrieved from https://www.texasnurse.org/page/44

US Bureau of Labor Statistics. (2018). *Monthly labor review*. Retrieved from https://www.bls.gov/opub/mlr/2018/home.htm

van Rooyen, D. R. M., Jordan, P. J., Ten Ham-Baloyi, W., & Caka, E. M. (2018). A comprehensive literature review of guidelines facilitating transition of newly graduated nurses to professional nurses. *Nurse Education in Practice, 30*, 35-41. doi:10.1016/j.nepr.2018.02.010

White, K. M., Dudley-Brown, S., & Terharr, M. F. (2016). *Translation of evidence into nursing and health care practice* (2nd ed.). New York, NY: Springer.

Zaccagnini, M., & White, K. (2014). *The doctor of nursing practice essentials: A new model for advanced practice nursing* (2nd ed.). Burlington, MA: Jones & Bartlett.