# MENTORING NEW GRADUATE NURSES IN ROLE TRANSITION

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TABLE OF CONTENTS

Table of Contents ..... ii

ABSTRACT ..... iv

CHAPTER I: INTRODUCTION

Introduction ..... 1

Graduate Nurse Role Transition ..... 1

Background and Significance ..... 2

Statement of Problem ..... 3

Purpose of the Paper ..... 3

Research Questions ..... 4

Theoretical Framework ..... 4

Conceptual and Operational Definitions of Terms ..... 5

CHAPTER II: REVIEW OF LITERATURE

Literature Review ..... 8

Factors Associated with Retention ..... 8

Characteristics of Mentors ..... 13

Clinical Competency and Professional Transition ..... 22

Synthesis of Reviewed Literature ..... 35

CHAPTER III: METHODOLOGY

Methodology ..... 39

Study Setting, Population, and Sample ..... 40

Recruitment and Enrollment Process ..... 41

Intervention ..... 41

Control Group ..... 42

Data Collection ..... 43

Data Analysis and Statistical Methods ..... 44

Summary ..... 44

References ..... 45

## ABSTRACT

**RESEARCH PAPER:** Mentoring new graduate nurses in role transition

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The challenge faced by new graduate nurses transitioning from student to the role new graduate nurse often lead to a leave or change in position within the first year of employment. Literature suggests that internship programs may be an effective intervention, but more information is needed. The purpose of this quasi-experimental study is to identify if a new graduate residency program would benefit the new graduate nurse in role transition. The Transformational Leadership model will be applied in this study. The research questions include: (a) Are there differences in organizational commitment, sense of belonging, and anticipated turnover between new graduate nurses who complete a new graduate nurse residency program and those who do not? (b) Does participation in a new graduate nurse residency program decrease new graduate turnover? The anticipated sample will include 25 graduate nurses who completed a one year program and 25 nurses who did not in an acute care setting. A Modified Hagerty-Patusky Sense of Belonging instrument, Organizational Commitment Questionnaire and Anticipated Turnover Scale will be used in the study. The findings will lead to decreased turnover resulting in cost and resource savings for the health care organization.

# Chapter I

## Introduction

The U.S. Bureau of Labor projected that more than 581,000 new registered nurse (RN) positions will be created through 2018. This will increase the size of the nursing workforce by 22% (American Association of Colleges of Nursing, 2012). Furthermore, the U.S. Department of Health and Human Services Health Resources and Service Administration (2002) predicts that the national nursing shortage, which was 6% in 2000, will increase to 20% between 2010 and 2015 and reach 29% (800,000 nurses) by the year 2020. According to the U.S. Department of Health and Human Services (2010), hospitals remain the primary employer of recently graduated nurses (83%). More than half of the nurses surveyed indicated they had changed positions or planned to leave their current job within three years (Varner & Leeds, 2012). Experienced nurses who are feeling the strain of the nursing shortage and the turnover of new graduate nurses are subject to burn-out. This stress could increase attrition, worsening the nursing shortage.

### Graduate Nurse Role Transition

The focus of this project is on assisting graduate nurses in their transition to being an independent registered nurse. Disparities between the student role and the staff nurse role create a professional and personal struggle that new graduates often find difficult to manage (Newhouse, Hoffman, Suflita, & Hairston, 2007). Nursing school often does not prepare new graduate nurses for the role transition from student to new graduate nurses. Not all clinical experiences are the same, making the role transition a different experience for each graduate nurse. Many institutions do not utilize formal nurse residency programs designed to fit the specific need for new graduate nurses. Job satisfaction and commitment to the health care organization is an important factor in the retention of the graduate nurse. Successful mentoring

programs for new graduate nurses are designed to provide professional support to assist the transition from classroom to hospital. Retention of new graduate nurses is important in lowering costs associated with recruitment, orientation, and temporary labor coverage for vacant RN positions (Halfer, Graf, & Sullivan, 2008).

New graduate nurses represent an increasing proportion of nursing staff in hospitals, but with budgetary and staffing restraints, new graduate residency programs are often not implemented (Bratt & Felzer, 2011). To promote retention of new graduate nurses beyond one year, a formal nurse residency program is necessary.

**Background and Significance**

According to Newhouse et al. (2007), between 35% and 60% of new graduate nurses change their place of employment during the first year. In addition, the Newhouse et al. (2007) study found that 30% of new graduates leave their job within the first year and 57% within two years. This rate of attrition costs healthcare organizations a significant amount of money per year. Trepanier, Early, Ulrich, and Cherry's (2012) paper identified that the cost of an 18-week residency for a graduate nurse in Florida on a medical-surgical floor was approximately $21,571 on the low end to $36,960 in the California market on the high-end. According to Halfer et al. (2008) the cost of replacing a nurse is approximately $44,000 per year or equivalent to the annual salary of one nurse.

The average age of the population is rising. This brings concerns to both the elderly population in need of nursing care and the aging population of nursing staff. Experienced nurses will be transitioning into retirement. The new graduate nurses who fill these positions will require training to promote their role transition and to decrease attrition. An increase in new graduate nurses will require healthcare organizations to examine their new graduate nurse

orientation process. Facilitating the transition from student, to new graduate, to independent nurse is as important as adequately preparing new graduates during an academic program (Hickey, 2009).

**Statement of Problem**

New graduate nurses commonly feel stress related to increased patient load, lack of clinical skill experience, time management problems and difficulty communicating (Hickey, 2009). Retention of new graduate nurses is imperative to the health and safety of patients as well as to decreasing staff burnout and RN replacement costs to healthcare organizations. New graduate nurse residency programs are essential for the "health" of the community. Nursing leadership is now challenged to decrease turnover by facilitating a collaborative program to fit the needs of new graduate nurses.

**Purpose of the Paper**

The purpose of this project is to develop a structured new graduate nurse residency program that will assist the new graduate in role transition. The specific aim of this study is to determine if a new graduate nurse residency program that utilizes a team approach will decrease attrition, increase organizational commitment and sense of belonging. The team will consist of the new graduate nurse, mentor, preceptor and nursing management. A transformational leadership model will serve as the conceptual framework. According to Halfer (2011), improvement in job satisfaction and retention has been found after implementation of structured mentoring programs for new graduate nurses.

**Research Questions**

1. Are there differences in organizational commitment, sense of belonging, and anticipated turnover between new graduate nurses who complete a new graduate nurse residency program and those who do not?
2. Does participation in a new graduate nurse residency program decrease actual turnover among new graduates?

**Theoretical Framework**

The transformational leadership model will be applied to the intervention for this proposed study. Transformational leadership, introduced by Burns and later revised by Bass, has been researched for more than 20 years (Schwartz, Spencer, Wilson, & Wood, 2011). This model describes leadership style as a way of raising the goals and motivations of others by engaging them in higher ideals and values. The concept of this framework is that leaders will role-model the positive ideals, values and behaviors in an attempt to inspire followers.

The revision of the transformational leadership model by Bass incorporated four key unified concepts essential for the leader to role model. These concepts include idealized influence, inspirational motivation, intellectual stimulation, and individual consideration. Idealized influence describes how followers identify with their leaders. Leaders are charismatic role models who display traits that are admired, respected, trusted, empathetic and supportive. Leaders provide a clear set of values and a united sense of mission to their followers. Inspirational motivation occurs as leaders motivate and challenge their followers. Leaders communicate a vision and encourage individualism and teamwork. The concept of intellectual stimulation is defined as how leaders improve on the norm and encourage creativity, decision making and problem solving (critical thinking). Individual consideration consists of how leaders

address the individual follower's needs and recognize them for their contributions to the team. This concept also encourages personal and professional growth.

## Conceptual and Operational Definitions of Terms

### Retention: Conceptual.

Retention of new nurses is conceptually defined as the percentage of new nurse hires that remain within the program at a certain time point (Newhouse et al., 2007). This paper further specifies this to apply to a particular job area or nursing unit. Attrition, on the other hand, is the percentage of new hires that leave a particular job area or nursing unit at a certain point in time from the date of hire.

### Retention: Operational.

Retention will be measured by the number of nurse graduates still employed after 24 month on the units to which they were initially hired. Involuntary termination will not be included (Newhouse et al., 2007). Attrition will be defined as the percentage of new hires that leave the program within 24 months.

### Anticipated Turnover: Conceptual.

Anticipated turnover refers to an individual's intention to leave the hospital (Beecroft, Frederick, & Wenten, 2007). Anticipated turnover is not the estimated attrition rate set forth by an organization but the actual intention of an individual to leave. Consistent job satisfaction is a precursor of anticipated and actual turnover (Newhouse et al., 2007). It is usually measured by an instrument such as the Anticipated Turnover Scale.

### Anticipated Turnover: Operational.

Anticipated turnover will be measured using the Anticipation Turnover scale developed by Hinshaw, Smeltzer, and Atwood (1987). This is a 12 item self-report survey with a 7-point

Likert scale. It measures the perception of the possibility of voluntary termination of the position. Job satisfaction should be measured at certain points after the date of hire.

**Organizational Commitment: Conceptual.**

Organizational commitment involves a multidimensional psychological state of mind. It characterizes the person's relationship with the organization in question and has implications for the decision to remain involved in the organization (Allen & Meyer, 1991). A low level of organizational commitment contributes to a high attrition rate. According to the Newhouse et al. (2007) study, organizational commitment is influenced more by the particular nursing unit than the entire organization.

**Organizational Commitment: Operational.**

Organizational commitment will be measured by the Organizational Commitment Questionnaire (OCQ). The OCQ measures the relative strength of an individual's identification with and involvement in a particular organization (Mowday, Steers, & Porter, 1979). This 15-item, 7-point Likert scale includes domains of acceptance, organizational goals and values, willingness to exert effort for the organization and desire to maintain membership (Newhouse et al., 2007). It has been tested in previous studies and has high internal validity.

**Sense of Belonging: Conceptual.**

Sense of belonging is defined as the experience of personal involvement in a system or environment so that persons feel themselves to be an integral part of that system or environment (Hagerty & Patusky, 1995). This concept usually presumes prior experience in the organization that either promotes or degrades an individual's opinion of the organization and its work environment. This concept is theoretically an important determinant of an individual's eventual decision to stay or leave the organization.

**Sense of Belonging: Operational.**

Sense of belonging will be measured by the Modified Hagerty-Patusky Sense of Belonging Instrument. This instrument entails the domains of psychological experience and antecedents. Antecedents are determined by prior experience in the organization that may lead an individual to have a positive or negative opinion of the work environment. According to Hagerty and Patusky (1995) with valid and reliable measures, deficits in sense of belonging can be identified and subsequent interventions tested and implemented.

# Chapter II

## Literature Review

The retention of new graduate nurses is imperative in today's economy due to the financial strain that most healthcare systems face. Studies have shown that implementation of residency programs for new graduate nurses improves retention rate. First year turnover rates of new graduate nurses can be as high as 50%, which translates into high replacement costs for hospitals. Recruiting and training one new nurse is estimated to be as high as $50,000 (Kowalski & Cross, 2010). The purpose of this chapter is to provide a review of selected articles from the literature regarding nurse residency programs, a synthesis of those articles and recommendations for further research.

### Factors Associated with Retention

New graduate turnover is costly to health care institutions and causes difficulty for fellow teammates. In an effort to reduce costs associated with high turnover rates among new RNs, Halfer et al. (2008) explored the effect of an RN internship program on new graduate job satisfaction and retention. The study included four research questions:

1. Does the Pediatric RN Internship Program improve nurse perceptions of the work experience and job satisfaction?
2. Are perceptions confounded by birth generation or shift schedules?
3. Is the pattern of longitudinal job satisfaction consistent over time after the implementation of a Pediatric RN Internship?
4. What is the impact of the Pediatric RN Internship Program on 1 year employment retention rates (p. 244)?

The study did not state a design or conceptual framework but was influenced by past studies on new graduate mentoring programs. Previous studies showed a positive relationship

between mentoring programs and new graduate nurse retention. However, studies showed that there was little to no increase in job satisfaction among nurses who were part of mentoring programs. A past study by Halfer found new graduates were pleased overall with their transition and showed improvement in understanding of leadership expectations, ability to get work accomplished, management of demands and awareness of professional development opportunities improved over time. The findings did show a decrease in new graduate satisfaction at certain time periods during the study. Decrease in job satisfaction includes skills needed to perform the job, access to resources and ability to participate in professional development opportunities. The concept of job satisfaction and factors that decreased job turnover also influenced the study.

The Halfer et al. (2008) study took place in the United States at an urban Midwestern pediatric hospital. The sample consisted of 234 participants, 54.2% (129) generation X and 45.4 % ( 108) generation Y nurses. Generation X included participants born between 1966 and 1976 and generation Y birth years between 1977 and 1994. The sample included 84 new graduate nurses who did not participate in the Pediatric RN Internship Program and 212 graduates who did complete the residency program. Participants worked in medical and surgical, neonatal and pediatric intensive care and emergency services. Approximately half (48%) of the participants worked 12-hour night schedules (Halfer et al., 2008).

A job satisfaction tool developed by the researchers consisted of demographic information, 21 statements measured on a 4-point Likert type scale, and four open-ended questions. The 4-point Likert scale rated agreement with organizational work environment statements using a scale of 1 (*strongly disagree*) to 4 (*strongly agree).* Factor analysis of the 21 items resulted in seven factors: competence, professional development, practice support, work

schedule, becoming part of a team, resources access and professional respect. Tool reliability and validity were previously reported. The job satisfaction survey was sent out to participants at 3, 6, 12, and 18 months from the beginning of their employment. A second survey was sent out at 3 weeks later for those who did not respond. Data collection was completed within 30 months.

Findings revealed an increase in perceived new graduate job satisfaction; overall job satisfaction was significantly higher ($p$ = .046) in the post-internship nurses compared to the pre-internship graduates. Work experience findings included near significant results for post-internship graduate nurses feeling comfortable asking questions ($p$ = .07). An unexpected trend was found among graduate nurses in the pre-internship group who responded more positively ($p$ = .055) to managing the demands of the job than did the internship group (Halfer et al., 2008).

Results for the second question about birth generation and shift schedules showed that birth generation did not have significant influence on job satisfaction. However, a significant difference was found about the effect of the shift worked. Nurses who worked night shifts showed significantly more ability to identify work resources ($p$ = .002), manage the demands of the job ($p$ = .04), and had more information to perform the job effectively ($p$ = .04).

Longitudinal job satisfaction increased over the course of the internship period. Statistically significant higher agreement occurred by 18 months. After 18 months of participation in the mentoring program, nurses felt an increase in job satisfaction as well as being accepted by coworkers, having their input in unit based issues, feeling mistakes are learning opportunities, feeling supported by the leadership team, physicians are respectful, having access to resources, comfortable asking questions, having information to perform job and participating in professional development. New graduate nurse retention was increased in nurses who

completed the Pediatric Internship Program. Turnover at the first year was 8% less than the pre-internship participants (Halfer et al., 2008).

The Halfer et al. (2008) study findings provided evidence for the positive impact of a new nurse internship program. Job satisfaction was found to increase over time irrespective of birth generation. Although a straight night shift may be considered a less desirable assignment, new graduate nurses may benefit from an environment more suited for learning, compared to the busy and sometimes chaotic day shift. Halfer et al. (2008) concluded that structured mentoring programs do have benefits in decreasing new graduate turnover and associated costs.

As the aging workforce of experienced nurses retires, the need for new graduate nurses will increase. Budgetary cuts have decreased the accessibility of new graduate retention programs within health care settings. Undertaking supportive measures may help reduce the risk of turnover with new graduate nurses. The purpose of the Halfer (2011) study was to examine job factors and types of professional development that increase retention within the first 3 years of nursing. The study included three research questions:

1. Are there personal characteristics associated with turnover?
2. Are the job factors for nurses who stay different from those for nurses who voluntarily leave the organization?
3. What types of career development support are the most important to these nurses in enhancing their professional practice?

The study did not state a conceptual framework. The study was influenced by the concepts of job embeddedness, career development opportunities, and factors that contribute to new graduate turnover. The Halfer (2011) study was conducted in a 270 bed pediatric hospital in an urban setting in the Midwestern United States that utilized a 1-year new graduate nurse

internship program. The sample was drawn from the 191 nurses who completed the1-year internship and had been employed 1 to 3 years at the healthcare facility. The majority of nurses were new graduates and born after 1980; had a baccalaureate degree or higher; worked full time, 12-hour shifts with a weekend commitment; and in medical-surgical, intensive care, operating room, resource team, and emergency departments. Online, voluntary and confidential questionnaires were returned by 116 graduates; after one year the response rate decreased to 102 graduates. The majority of the sample was female (98%), single (70%) and White (88%). Participants were baccalaureate level (82%) staff nurses (94%) employed full time with a weekend commitment (97%). The average time for participants' commute to work was 40 minutes or less (81%). Half of the participants were born after 1980 (59%) with the remainder of participants born between 1960 and 1980 (41%).

Halfer (2011) used three questionnaires to conduct the study. The first instrument, an 11-item questionnaire, collected participant information related to new graduate turnover. Demographics included age, gender, marital status, number of children living at home, years at the organization, education, ethnicity, full or part time employment status, length of commute, position and current and former degrees. The second questionnaire measured job embeddedness factors that had been identified in a previous study. The factors included 25 organizational and 15 community items on a 5-point Likert scale and three yes-or- no questions. Good reliability was reported as Chronbach alpha of .87. The third instrument, a 20-item questionnaire with a low to high rating scale, measured career development values and priorities. One open-ended question was included to obtain further information about activities important to the individual nurse. Career development items included certifications, continuing education classes, role education, mentoring activities, quality improvement projects research and social networking.

The three questionnaires were reviewed by a panel of 10 expert nurses in staff development and piloted online with clinical nursing educators. Face value validity was established.

The Halfer (2011) study found that the only demographic factor related to turnover was age. Younger nurses were more likely to leave the healthcare organization than older nurses ($p$ = .04). Job factors that influenced nurses to stay rather than voluntarily leaving included feeling like part of the team ($p$ = .005) and that they were a good match for the organization ($p$ = .039). Highest ranked career development elements among new graduates included certifications, continuing education classes, and funding for education. Elements that ranked moderately important included role education, committee and project participation, mentoring activities, and on-site academic programs. Research and social networking electronic sites ranked the lowest. An open-ended question about career development identified that nurses faced difficulty getting the time off work to attend classes and that financial burden from undergraduate debt was a barrier to obtaining a graduate degree.

Halfer (2011) concluded that managers hiring new graduate nurses should take the time to ensure the candidate is a good fit for the department. Mentors and nurse leaders have the opportunity to assist new nurses in career development activities that can positively influence a new nurse's embeddedness in the organization. Internship programs that focus on learning needs extending beyond the first year may also contribute to new graduate satisfaction and decrease turnover.

**Characteristics of Mentors**

The transition process from new graduate into experienced nurse is challenging for new graduate nurses. Nurse mentors may help make the transition easier. The Ferguson (2011) study explored new graduate nurses perspectives on effective informal mentoring and how new

graduates engaged into a mentoring relationship. This guided theory qualitative study contributed to an increased understanding of the concept of mentoring.

The population included graduate nurses from professional nursing associations in two Canadian provinces. The graduate nurses worked for 2-3 years as full-time registered nurses on general medical, surgical, pediatric, and obstetrical or psychiatric nursing units. The sample consisted of 25 baccalaureate-prepared nurses from five different nursing programs. Except for one participant, all of the participants were female ranging from 24 to 39 years of age with an average age of 28 years. Five new graduate nurses were from rural hospitals and remainder of participants from urban hospitals. The majority (N = 20) of graduate nurses worked on medical and surgical units. Participants were recruited through letters of invitation mailed out by the professional nursing association in the two provinces (Ferguson, 2011). Half of the participants identified informal mentoring partnerships within their first two years of practice. The participants who did not engage in mentoring relationships felt a mentor would have helped their role transition. New graduate preceptors did not always choose their preceptors as mentors.

General audio-taped interviews were conducted two to three times with each participant. Each interview lasted approximately 90 minutes and examined the new graduate's personal experiences in the development of clinical judgment, supporting or inhibiting factors for development, and effective characteristics of their mentors. The interviews were analyzed on a constant comparative basis, coded, and analyzed for recurring themes. Validity was shown by the member checking procedure completed after the participant's second interview.

Findings for the Ferguson (2011) study included themes of mentoring in the workplace, relational connection, strong role models, workgroup integration, supportive behaviors, sharing knowledge and trust in relationships. Relational connection is defined as the connection new

graduates felt existed between themselves and their mentors (Ferguson, 2011). Mentoring in the workplace reflected how the experience of having a mentor for the first two years of practice helped in the role transition into an experienced nurse. The theme that occurred most was *Seeking Learning*. *Seeking Learning* is the intent of new nurses to continue to learn in practice (Ferguson, 2011). Informal mentorship showed a significant influence on supporting or inhibiting the development of clinical judgment. Graduate nurses who were not given a mentor thought that, given the opportunity, a mentor would have helped role transition.

New graduates felt a connection with experienced nurses who displayed caring attitudes. Giving the graduate nurse the opportunity to choose a mentor who was friendly, welcoming, supportive, and encouraging was important (Ferguson, 2011). Graduate nurses felt that having a personal and nurturing relationship with their mentor was important and assisted in building a trusting relationship. Participants indicated that having role model was important in role transition. A mentor they felt possessed the work ethics and attributes they admired in the nursing profession helped them to model the way into the transition. Workgroup integration also helped new graduates adjust into the culture of the nursing unit. Supportive behaviors included a positive working environment that was conducive to learning. Mentors who enjoyed their job and displayed a positive attitude helped the new graduate nurse to feel less stress in the workplace.

Other themes were identified by Ferguson (2011) such as sharing knowledge and trust in relationships. Sharing knowledge was described as mentors proactively recognizing the new graduates' learning needs, answering questions and giving suggestions. Trust in relationship was viewed as mentors who were experienced and nonjudgmental. Mentors assisted the new graduate nurses with decision making, critical thinking, evidence based practice, holistic care and

professional development. Critical thinking ability and a holistic approach to practice were also identified as positive mentor characteristics.

Mentoring provides resources and a supportive environment for new graduate nurses. To increase job satisfaction and reduce turnover among new graduate nurses, mentors must have characteristics viewed as important by the new graduate. Ferguson's (2011) study identified important characteristics of mentors that assist with role transition for new graduate nurses. Supportive and nurturing partnerships between new graduate nurses and mentors are important to the success of the transition into an experienced nurse.

New graduate turnover rates remain a problem in the nursing profession. A stressful work environment and increased workload have resulted in high turnover of new graduate nurses at a rate of 35-65% per year within the first year of employment (Giallonardo, Wong, & Iwasiw, 2010). Job satisfaction is important in the reduction of new graduate and staff turnover and absenteeism due to burnout. The transition from new graduate to experienced nurse is an important time period to encourage job satisfaction and engagement. Nursing preceptors' authentic leadership ability may increase job engagement and satisfaction. Authentic leadership promotes work engagement which then leads to job satisfaction.

The purpose of the Giallonardo, Wong, and Iwasiw (2010) study was to examine the relationship of new graduate nurses perception of preceptor authentic leadership, work engagement and job satisfaction. Two hypotheses were tested using a non-experimental predictive survey design. The first was that the new graduates' perception of their preceptor's authentic leadership positively affects work engagement and job satisfaction. The second is that work engagement has a relationship to new graduates' perceptions of preceptor authentic leadership and job satisfaction.

The authors combined the model of authentic leadership by Avolio, Gardner, and Walumbwa with the conceptual work of Schaufeli and Bakker on work engagement to develop the conceptual framework for their study (Giallonardo et al., 2010). Avolio et al.'s model conceptualizes authentic leadership as comprised of self-awareness, relational transparency, internalized moral perspective and balanced processing. Work engagement as defined by Schaufeli and Bakker refers to a positive state of mind regarding one's work and is characterized by vigor, dedication, and absorption.

The study was conducted using the Authentic Leadership Questionnaire, Utrecht Work Engagement scale and part B of the Index of Work Satisfaction scale. The Authentic Leadership Questionnaire (ALQ), a 16-item survey comprised of four subscales, was used to measure new graduates' perception of the preceptors' authentic leadership. The four subscales, rated on a 5 point Likert scale from 0 (*not at all*) to 5 (*frequently*), were labeled relational transparency, balanced processing, self-awareness and internalized moral perspective. The subscales were determined to be valid by confirmatory factor analysis. Acceptable Cronbach's alphas ranged from .70 to .90. The Utrecht Work Engagement Scale (UWES), a 17-item self-report questionnaire, was used to measure new graduate nurses' work engagement. Work engagement included vigor, dedication and absorption. The 6-item Likert scale ranged from 0 (*never*) to 6 (*always, everyday*) correlating the higher score with increased work engagement. Internal reliability consistency has been reported to be .70. Giallonardo et al. (2010) reported acceptable alphas for all but the absorption subscale which had an alpha of .60. The third instrument, section B of the Index of Work Satisfaction scale (IWS), measured current job satisfaction. The 44 question scale was divided into six subscales of pay, autonomy, task requirements, organizational policies, professional status and interaction. Responses were measured using a 7-

point Likert scale that ranged from 1 (*strongly agree*) to 7 (*strongly disagree*) Scores ranged from 44-308, with the higher score representing increased job satisfaction. Cronbach alpha coefficients for this study ranged between .61 for the professional status subscale and .89 for the nurse-physician interactions subscale (Giallonardo et al., 2010).

The sample was randomly selected from the College of Nurses of Ontario registry list of nurses who had been working in an acute care setting for 3 years or less. Eligible new graduate nurses were contacted through the mail, 170 out of 500 questionnaires were returned with a response rate of 39%. This number was well over the 68 responses required to detect a moderate effect size. Demographics of the nurses included female (91.8%), BSN degree (92.4%) and working full time (75.3%). The average age of participants was 28 years with 22 months of nursing experience and 2.45 years since graduation. Areas of nursing included medical surgical, critical care and emergency departments.

The Giallonardo et al. study (2010) found that a positive and independent relationship existed between authentic leadership and work engagement in job satisfaction. New graduates also felt that preceptors' authenticity was related to new graduate engagement. Authentic leadership's highest correlation was with dedication and vigor. New graduates also had positive relationships between work engagement and professional status, authentic leadership, and nurse to nurse interactions. Authentic leadership positively effects work engagement and improved job satisfaction. Preceptors' internalized moral perspectives such as moral principles, honesty and integrity as perceived by new graduates was the variable most highly correlated with longevity of work engagement (Giallonardo et al., 2010). Autonomy, nurse-nurse and nurse-physician interaction were also important to new graduate nurses.

The study concluded that authentic leadership from preceptors of new graduate nurses positively influences work attitudes, employee behavior, work engagement and job satisfaction in new nurses. This study substantiates that choosing the right preceptor for individual students is an important factor when mentoring new graduate nurses. The appropriate mentor can increase work engagement and job satisfaction in new graduate nurses. Programs to prepare preceptors for their role as authentic leaders would be helpful to decrease new graduate turnover.

Mentoring programs conducted by retired and senior nurses may increase job satisfaction and retention of the working nurse. The purpose of the McDonald, Mohan, Jackson, Vickers, and Wilkes (2010) report was to explore the experiences of senior and retired nurses engaged as mentors as part of a study to promote resilience in mentored nurses. This qualitative study used mentors and mentees who met together twice a month for at least six months to discuss mutually agreed upon goals. The concept of transformational leadership served as the organizing framework.

The McDonald et al. (2010) study was conducted at a major hospital in a culturally diverse middle class suburb of a large Australian city. The sample consisted of fifteen mentoring partnerships with twelve senior and retired nurse mentors. Three participants served as mentors twice during the study. The mentors were comprised of ten women and two men between 40 and 70 years of age; four of the mentors were retired, two semi-retired, and six working. The mentors were highly qualified and came from diverse nursing backgrounds. Clinical backgrounds included midwifery, family and community nursing; some mentors also held joint academic appointments.

The researchers met with two nurse mentors at a time to discuss their experiences with the mentoring program. The researchers interviewed the mentors in pairs to enhance the

dialogue. Mentors were asked about their personal experiences with the program and to comment on their understanding of their mentees' experience. Although study mentees were also interviewed, those data were not included in the article. The interviews were audio-taped and transcribed for thematic analysis. Validations of themes were done by cross checking with the transcripts. Infrequent ideas were retained and field notes were used to provide complementary information. Interpretations and themes were discussed and agreed on by all the research team to increase reliability and trustworthiness (McDonald et al., 2010).

Three major themes with associated subthemes emerged from the qualitative analysis. The major themes included facilitating work and life decisions, benefits from visibly helping other nurses and midwives, and adapting to the role and the mentee. Facilitating work and life decisions included the subthemes of professional networks, professional goals and personal goals. Mentors found that assisting their mentees to network within their place of employment and nursing associations provided value. Professional and personal goals were identified and ideas to achieve them were discussed. The theme, benefits from visibly helping other nurses and midwives, included the subthemes of understanding today's workplace, being useful and being a culture broker. The participants felt they benefited by mentoring working nurses. Mentors appreciated the experience of talking with the mentees about the culture of the work place, changes in nursing and challenges they were facing. Mentors felt the experience helped them to feel that their past professional experiences could be beneficial to their mentees and nursing profession while maintaining a connection to the field of nursing (McDonald et al., 2010).

The third theme, adapting to the role and the mentee, included the subthemes of unknown territory and adapting to the pace of a developing relationship. Mentors felt it was difficult to develop and maintain trusting relationships with their mentees due to time constraints and work

place diversity. Mentors were also concerned about their role as mentor due to not having personally participated in such a relationship. Mentors also found that it difficult for mentees to develop trust until the later part of the study. This was thought to be due to limited time, work or family difficulties, or mistrust of the healthcare institution based on past experience. Mentors felt that trust was starting to develop towards the end of their relationships with the mentees and a better outcome may have resulted if there had been opportunity for more frequent sessions (McDonald et al., 2010).

McDonald et al. (2010) concluded that mentoring programs that include retirees as mentors provide mentees with opportunities to develop and practice their capacities for collaboration with others outside their workplace. Supportive relationships can assist to decrease burnout in the stressful environment faced by less experienced nurses in today's profession. Inexperienced nurses may not receive the benefits of a mentoring relationship with an experienced nurse who works on the unit due to time, staffing and budgetary constraints. Offering a mentoring relationship between a retired nurse and an inexperienced nurse is an alternative option to increase job satisfaction and retention. Mentors felt that that the experience provided them with understanding of the issues and challenges working nurses are dealing with in today's healthcare system. Mentors also were able to help the mentees that were not from Australia to access community resources and social systems. Mentors possess the skills and experience necessary to gain confidence from the mentees. Retired nurses may have more time to spend mentoring nurses than nurses on busy units (McDonald et al., 2010).

**Clinical Competency and Professional Transition**

New graduate nurses are not prepared to transition from the role of student to a graduate nurse. This role transition often leads to new graduate turnover within the first year of employment.

Graduate nurse internship programs that utilize mentors and ample orientation periods can help improve this transition. The purpose of the Newhouse, Hoffman, Sulfita and Hairston (2007) study is to identify if a structured nurse internship program would benefit the new graduate nurse in role transitioning. This program was referred to as the Social and Professional Reality Integration for Nurse Graduates (SPRING). This quasi-experimental design study was used to answer the following two research questions:

1. Are there differences in organizational commitment, sense of belonging, and anticipated turnover between new graduate nurses who complete a structured internship program and those who do not?
2. Does participation in a structured internship program decrease new graduate turnover?

Newhouse et al. (2007) conducted the study at Johns Hopkins, a large academic hospital. The population of the study included newly graduated nurses hired into the hospital. The sample size was 73 new graduate nurses at baseline, 237 at 6 months, and 212 at 12 months who had less than 1 year experience. Specific demographics were not included in the study. For research question one the control group included new graduate nurses hired before implementation of internship program. New graduate nurses hired in one department that did not participate in SPRING served as the control group for the second research question (Newhouse et al., 2007).

The Newhouse et al. (2007) study used the Donabedian model as a framework to implement a 1 year new graduate nurse internship program. The Donabedian model examined the relationships among the structures, processes and outcomes of the health care delivered. Intervention outcomes were measured by decreased turnover and successful socialization into the hospital (Newhouse et al., 2007). Research question one was measured using the Organizational

Commitment scale (OCQ), Modified Hagerty-Patusky Sense of Belonging Instrument, and Anticipated Turnover Scale. The OCQ, a 15-item, 7-point, Likert scale, ranging from 1 (*strongly agree)* to 7 *(strongly disagree)*, measured how strongly an individual identifies with and is involved in an organization. The Cronbach's alpha coefficient ranged from good to excellent reliability at .82 to .93. The Modified Hagerty-Patusky Sense of Belonging Instrument measured valued involvement and fit, and antecedents of a sense of belonging. This 32-item survey with a 4-point Likert scale from 1 (*strongly agree*) to 4 *(strongly disagree)*, includes two domains. The first domain, Psychological Experience, contains 18 items; the second domain, Antecedents, is composed of 14 items. Reliability, estimated on two separate trials of the instrument, was reported as excellent, .91 and .93, for Psychological Experience. For Antecedents, acceptable to good reliability was estimated on two trials of the instrument as .63 and .76. The Anticipated Turnover Scale, used to measure perception of the possibility of terminating the position, utilized a 12-item, 7-point Likert scale ranging from 1 (*agree strongly*) to 7 *(disagree strongly)*. Cronbach's alpha was reported as good at .84. Surveys were sent through the mail at baseline and distributed during the SPRING classes at 6 and 12 months. Data regarding turnover was collected at 12, 18 and 24 months. The control arm was surveyed at the same time periods as the intervention group.

The Newhouse et al. (2007) study found that there was no significant change in organizational commitment and psychological sense of belonging between the participants and control group from baseline to 12 months. There were significant differences between the groups at baseline, 6 months, and 12 months for anticipated turnover. Nurses who did not participate in the SPRING program where most likely to leave from baseline to 6 months. SPRING participants between baseline, 6 months and 12 months did not show significant difference in

antecedent sense of belonging. However, SPRING participants had lower results in antecedent sense of belonging at 6 months. There were significant differences in the new graduate turnover rate at 12, 18 and 24 months between the SPRING and control groups, with the control group having a higher turnover rate.

According to Newhouse et al. (2007) programs must include not only the skills and knowledge needed for novice nurse competence but also the opportunity for socialization into the professional role. This study illustrates the importance of supporting new graduate nurses through the first year of employment. Structured nurse residency programs have a positive effect on new graduate role transition and retention. Nursing leadership is charged with the responsibility of retaining new staff to decrease the effects of turnover such as higher costs and decreased patient safety.

Graduate nurses are required to perform essential skills in their role as new nurses. The perceptions of new nurse preceptors provide valuable information about new graduates' readiness to practice and the important skills needed for the transition. The purpose of the Hickey (2009) study was to identify nurse preceptors' perceptions of new graduates' readiness to practice using a specific set of criteria to determine which skills are most important for the transition into practice. The descriptive study used a multi-methods approach with the quantitative instrument developed from a review of the literature on student perceptions of effective clinical instructor behaviors, program outcome criteria, aspects inherent to nursing practice, and competencies outlined by the American Association of Colleges of Nursing.

The Hickey (2009) study, conducted in a 591 bed teaching hospital within the Mid-Atlantic States, utilized a preceptor model for new hire orientation. The population consisted of preceptors who oriented new graduate nurses. The sample consisted of 62 out of approximately

200 preceptors from medical-surgical, critical care, operating room, emergency department, long-term care, pediatrics, and maternity patient care units. The participants included anonymous registered nurses who had served as preceptors for the clinical orientation and evaluation of new graduate nurses. The majority of participants were female (93.5%), White (77%) and had a mean age of 41 years. Half of the preceptors held a Bachelor of Science degree (55%); the remaining degrees were an associate in applied science (35%), diploma (5%) and Master of Science degree (5%). The participants had an average of 15 years of nursing experience including 9 years serving as a preceptor. The majority of nurses (74%) had never attended formal training to prepare them for the role as a new nurse's preceptor.

Hickey (2009) used a revised version of the Clinical Instructional Experience Questionnaire. This instrument was developed by the researcher to measure the effectiveness of the clinical instructional experience of the baccalaureate nursing program. The questionnaire included items that represented specific skills and nursing activities that new graduate nurses are expected to perform. Two items were omitted from the questionnaire for its use with the nurse preceptors. The revised instrument contained 2 subscales and a total of 18 items: Clinical Teaching (8 items) and Development of Clinical Competence (10 items). Using these subscales, preceptors were asked to provide actual evaluations of precepted graduates over the previous year and to evaluate the importance of each item with respect to preparation for practice. Actual evaluation was measured with a 5-point Likert scale (1 = *never* to 5 = *always*). Importance evaluation was also measured with a 5-point Likert scale (1 = *not important* to 5 = *very important)*. The instrument also included five open–ended questions. The questionnaire had been used by the researcher in a past study and reliability was established. The alpha coefficients were in an acceptable range: actual responses to Clinical Teaching subscale ($\alpha$ =.81), actual responses

to Clinical Competence (α =.74), importance responses to the Clinical Teaching subscale (α =.82) and importance responses to the Development of Clinical Competence (α =.90).

The quantitative findings from Hickey's (2009) study showed that the new nurses performed better than sometimes on all the scored items and that the preceptors viewed the scored items as important. The survey results yielded a mean score of 59.6 indicating that new graduate nurses performed better than sometimes on each measured item. The mean scores (74.23) for the importance scales were higher than for the actual scales. Significant mean total scores ($p < .001$) between importance and actually observed behaviors were found; differences between mean sub-scale scores were also highly significant ($p < .001$). These findings indicated that preceptors believed the items listed on the questionnaire were more important to practice than were being demonstrated by the new graduates. For example, item analysis showed that 63% of the preceptors thought new graduate communications with patients were effective *most of the time or always*. However, effective communication was viewed by 90% of the preceptors as *important or very important*. Seventy-two percent of preceptors reported that new graduates "are able to perform basic technical skills: vital signs, hygiene, safety, positioning, independently and completely" most of the time; 91% believed that these skills were important or very important (Hickey, 2009).

Responses from the qualitative questions supported the quantitative findings related to new graduates' ability with specific psychomotor skills and the importance of those skills as determined by preceptors (Hickey, 2009). The qualitative questions explored whether the preceptors felt (a) there were any skills new nurses were particularly weak in at time of hire and (b) new nurses were adequately prepared for practice. A third question asked for any further information that had not yet been covered.

A total of 79 responses were given to the three questions. Twenty-three participants responded to the first question; 50% of comments fell into 6 categories of weakness. Preceptors felt there were weaknesses in areas consistent with the AACN core competencies of psychomotor skills, assessment skills, critical thinking, time management, communication and teamwork. More than 50% of the preceptors felt clinical experience during academic programs did not adequately prepare the graduate for the realities of practice. Participants also reported that new graduates were not prepared in school for the greater workload but those who had prior experience as a nurse extender or nursing assistant were better prepared. Graduate nurses with language barriers took longer to orient because of difficulty communicating with preceptors, patients and physicians (Hickey, 2009).

Hickey's (2009) study revealed areas for improvement consistent with the literature. These included "working independently and competently to perform advanced technical skills" as well as "critical thinking skills," "priority setting," "clinical decision making," "appropriate management of case load," "organizational skills," and "delegation." Results showed that 63% of the participants felt that new graduates "communicated effectively with patients" most of the time or always and was viewed as important or very important by 90%.

The Hickey (2009) study concluded that "assisting the student to transition to a new nurse graduate and to an independent nurse" is as important as adequately preparing new graduates during an academic program." Structured preceptor training programs are important for new graduate nurses. The majority of preceptors viewed all measured items as important or very important in nursing practice. Preceptors identified specific items that needed improvement in the areas of clinical competency and readiness to practice. The items included complex or

advanced skills, prioritization and organization, managing caseloads of patients and critical thinking, including problem solving and clinical decision making.

Nurse residency programs benefit new graduate nurses as they make the transition into the role of an experienced nurse. Residency programs decrease the new graduate turnover and increase patient safety and quality of care. The purpose of the Bratt and Felzer (2011) study was to explore new graduate nurses' experience in a nurse residency programs. The study did not site a theoretical or conceptual framework.

The study focused on new graduates' perception of professional practice, decision making ability, quality of nursing performance, and work environment stressors. Work environment stressors include job satisfaction, job stress, and organizational commitment. The study was based on a 1 year nurse residency program in Wisconsin that focused on specific unit knowledge, team interaction, and professional growth. The purpose of the residency program was to decrease work environmental factors that contribute to increased turnover and job satisfaction. Bratt and Felzer (2011) used a repeated measures design to compare new graduate nurses' perceptions of their work environment and professional practice prior to the start of the program, at midpoint and after completion.

The Wisconsin Nurse Residency Program took place at 50 rural and urban hospitals throughout Wisconsin. The population of the study included newly licensed graduate nurses from acute care settings who had participated in the graduate nurse residency program from 2005 to 2008 (Bratt & Felzer, 2011). The sample consisted of 468 new graduate nurses from a variety of hospitals including community based hospitals in urban, rural and critical access settings. The majority of participants were female (94.3%), White (91.6%), mean age of 30 years (S.D = 8.3), no previous degree (76.3%), and working in an urban setting (81.6%). Approximately half of the

new graduates (55.4%) had an associate's degree in nursing and worked on a medical surgical unit (57.5%).

The variables in the Bratt and Felzer (2011) study were measured with five instruments including the Clinical Decision Making in Nursing Scale, Modified 6-D Scale of Nursing Performance, Nurse Job Satisfaction Scale, Job Stress Scale and Organizational Commitment Questionnaire. The Clinical Decision Making in Nursing Scale, a 40 item, 5-point Likert scale measured the mindful, cognitive method of decision making. Decision making skills included new graduates utilizing alternative approaches, applying objectives, evaluating and revaluating. Good reliability was reported as Cronbach's alpha coefficient of .82 to .83. The modified 6-D scale of Nursing Performance, a 61-item, 5-point Likert scale with 7 subscales measured quality of nursing performance. The subscales included critical care, interpersonal relations/communications, leadership, managing/outcomes, planning/evaluation, professional development and teaching/collaboration. Cronbach's alpha for the total scale was excellent at .95 and acceptable to good, .71 to .90 for the subscales. The Nurse Job Satisfaction Scale, a 21-item, 5-point Likert scale with 3 subscales measured factors associated with new graduate nurses liking and enjoying their job. The 3 subscales included quality of care, enjoyment, and time to provide care. Good reliability was indicated by a reported Cronbach's alpha for the total scale of .90 and subscales acceptable to good at .77 to .90. The Job Stress Scale, a 22-item, 4-point Likert scale measured perceptions of the work environment. The instrument included 4 subscales of competence, physical work environment, staffing and team respect. The total Job Stress Scale Cronbach's alpha was reported good at .87 and subscales questionable to good at .64 to.81. The Organizational Commitment Questionnaire, a 15-item, 7-point Likert scale instrument measured

the new graduates' identification and involvement with the health care institution. Cronbach's alpha for the Organizational Commitment Questionnaire was reported excellent at .90 to .91.

Bratt and Felzer (2011) found that measurements changed from 1 month, 6 months and 12 months in many of the variables. Clinical decision making and job satisfaction were the highest at the end of one year compared with the beginning or midpoint but remained unchanged from beginning to midpoint. Subscales quality of care and time to provide care were also found to be highest at 12 months. However, job enjoyment decreased after baseline. Overall job stress declined after baseline or midpoint. The subscales of stress related to feeling like part of the team, competence, clinical knowledge and judgment decreased during the study period. Stress related to adequate supplies, workspace, and satisfying schedule increased from baseline to midpoint. Job stress related to staffing to provide quality of care increased from baseline to six months and decreased into end of the year. Findings reflected that organizational commitment was higher at baseline and decreased throughout out the year. The overall quality of nursing performance and subscales increased steadily from baseline to endpoint. Partial completion of the three instruments was reported by 241 participants. Participants who had completed all measuring tools had a higher clinical decision making score at 12 months and increased job satisfaction and organizational commitment throughout the year. Participants who completed all of the surveys had lower job stress from beginning to midpoint. Participants who did not complete all of the surveys had lower job satisfaction, organizational commitment, clinical decision making and increased job stress.

Bratt and Felzer (2011) concluded that new graduate nurse residency programs have been shown to have a positive influence in the nurse graduate's work perceptions. Residency programs and mentorships can result in decreased turnover and increased quality of patient care.

Experienced and skilled mentors are necessary in work environments to cultivate new graduate nurses' learning experience and to assist new graduates in feeling like part of the team. Participation in new graduate residency programs and a willingness to learn are important for quality nursing performance, job satisfaction, and decreased work stress. Nurse residency programs need further research on the decline of organizational commitment after the beginning of employment.

New graduate nurses have a high prevalence of turnover within the first year due to overwhelming stressors from the new role. The purpose of the Kowalski and Cross (2010) study was to present the preliminary outcomes of new graduate residency programs that support clinical competency and professional transition. The residency program goals and research questions were based upon the goals of the Nevada Bureau of Health Professions and Healthy People 2010. The study included five research questions:

1. Does the level of clinical competency and critical thinking ability improve new graduate RNs during a residency program?
2. Does the stress level of new graduate RN's, as indicated by their perception of challenge and threat, decrease during a residency program?
3. Does the level of state or train anxiety in new graduate RN's decrease during a residency program?
4. Do new graduate RN's experience positive professional transition during a residency program?
5. What per cent of new graduate RNs remain employed during a 1-year residency program (p. 98)?

The study did not state a design or conceptual framework. The study was influenced by other programs focusing on the first year of new graduates working as a nurse. A children's hospital in southern California decreased turnover and increased retention rates by pairing new graduate nurses with experienced nurses for 18 weeks and required new graduates to complete 60 point clinical and communication skills checklist. A one year, accredited program, was developed by the chief nursing officers from the University Health System Consortium and Deans from American Association of Colleges of Nursing. This program incorporated general orientation, preceptor-guided clinical experiences, facilitated discussion about role development by a resident facilitator, and specific clinical skills and core curriculum related to the unit. The population for this study included newly graduated nurses employed in the Las Vegas, Nevada area. The sample consisted of 55 associate degree nurses (ADN) and 32 Bachelor of Science in nursing (BSN) graduate nurses employed by two sister hospitals. The majority of the study participants were female (83.6%), White (56.4%) and had an average age of 31 years (S.D = 7.66). Approximately half (50.9%) of the participants were married (Kowalski & Cross, 2010).

The study variables were measured with four instruments including the Preceptor Evaluation of Resident form, Pagana's Clinical Stress Questionnaire, Spielberger's State-Trait Anxiety Inventory, and the Casey-Fink Graduate Nurse Experience Survey. The Preceptor Evaluation of Resident form, a 31-item, 4-point Likert–style scale, measured the progress of each resident who participated in the residency program. The scores ranged from 31-124. The tool was developed by the hospitals' education staff and reviewed by a panel of expert nurse clinicians to determine the validity of the instrument. Pagana's Clinical Stress Questionnaire measured clinical stress using the subscales of threat and challenge. Threat is the potential for harm and challenge is the potential for mastery, growth, or gain. Qualitative and quantitative data

were obtained using open ended questions and a 4-point, 20-item Likert-style scale with scores ranging from 1 (*never*) to 4 (*always*). Acceptable Cronbach's alpha coefficients for the threat and challenge subscales were reported by the authors as .84 and .85 respectively. Validity was established by factor analysis and the comparison of scores from the threat and challenge scales to the open ended questions. The resulting inter-rater reliability was .89.

The Spielberger's State-Trait Anxiety Inventory for Adults was used to measure present levels of anxiety (state) and general feelings of anxiety over time (trait). The 4-point, 40-question Likert style scale was scored by the summation of items that ranged from 40 and 160 with scores ranging from 1 (*almost never*) to 4 (*almost always*). Cronbach's alpha coefficients are consistently reported to be above .90. Validity was established by use of several methods. The Casey–Fink Graduate Nurse Experience Survey measured four areas of professional transition including support, patient safety, communication/leadership and professional satisfaction using a 4-point Likert-style scale and qualitative questions. The instrument was found to be reliable with reliability estimates ranging from .71 to .90.

Findings reflected the complete data collection from the first group of nurse residents and partial data from the second group. The findings of the study showed that clinical competency of the nurse residents consistently increased during the program. The results from the Preceptor Evaluation of Resident form showed a mean score of 78.1 at 3 months and 111.1 at 8 months. Results indicated a significant positive trend across time ($X^2 = 29.92$, d.f. = 5, $p < .001$) (Kowalski & Cross, 2010). Nurses also showed improvement in knowing one's own limits, setting priorities, differentiating urgency, anticipating and implementing appropriate nursing interventions and evaluating patient outcomes with adaption of plan of care. However, there was not an increase in ability to meet psycho-social needs of patients and families, recognize changes

in patient conditions and implement interventions as needed, interpret needs of patients and request of new orders from MD as appropriate, or in the ability to delegate effectively. The study also showed a positive outcome with decreased feeling of threat during the continuation of the program. However, participants continuously felt more challenged than threatened during the program. Kowalski and Cross (2010) state that although the overall anxiety decreased from the beginning to the end of the program there was no significant statistical decrease in change in state anxiety ($z = 1.16$. d.f. = 7, $p = .14$) and trait anxiety ($z = 1.02$, d.f. = 7, $p = .19$).Trait anxiety measures how a person feels generally and is thought not to change over time, therefore you would not expect a change (Kowalski & Cross, 2010).

Kowalski and Cross (2010) used the quantitative Casey-Fink Nurse Experience Survey. Subscales included support, patient, communication/leadership and professional satisfaction. Communication and leadership were significantly increased during the residency and supported by pre- and post-test scores ($z = 1.93$, d.f. = 11, $p = .022$). Support or patient safety did not significantly increase during the program. Professional satisfaction remained unchanged. The retention rate for first year nurses who participated in the residency program was 78%. Retention for the second cohort was 96% at the time of the article. Resident nurses felt strongly about the positive experience they had with the peer support groups. The groups gave them a platform in which they could share their experiences and difficulties and problem solve together. The study was limited by small number of participants and there were challenges related to the implementation of a new program. The challenges included misunderstanding between the resident and nurse managers about attendance at the monthly Resident Development Day, the role of the preceptor, and organization of education modules.

Kowalski and Cross (2010) concluded that, even with the limitations, the results of the study supported the value of residency programs. The program's retention rate was not as high as other studies reported in the literature, but the findings did show significant improvements in areas of clinical competency, decreased levels of feeling threatened and improved communication and leadership in resident nurses.

**Synthesis of the Reviewed Literature**

The majority of the studies explored the independent variable of a new graduate nurse residency program. The common dependent variables included new graduate nurse's job satisfaction, work commitment and engagement, skills needed for transition, retention, and the new graduate nurse's and preceptor's perception on role transition. One study explored the relationship between graduate's perception of the preceptor's authentic leadership with work engagement and job satisfaction (Giallonardo et al., 2010).

There were no common theoretical or conceptual frameworks found throughout the literature reviewed. Halfer et al. (2008) was influenced by past studies and programs that focus on new graduate nurse residency programs. The Kowalski and Cross (2010) study was based on the goals of the Nevada Bureau of Health Professionals and Healthy People 2010. One study examined the concepts of job embeddedness, career development opportunities, and factors that contribute new graduate turnover (Halfer, 2011). Giallonardo et al. (2010) used the conceptual models of Authentic Leadership and Work Engagement in their study. The concept of transformational leadership was used as the organizational framework for the McDonald et al. (2010) study. This framework would be a useful concept for future research on enhancing the new graduate nurse's role transition. The transformational leadership model utilizes the concepts of inspirational motivation, individualized consideration, idealized influence and intellectual

motivation (McDonald et al., 2010). These concepts are important characteristics for mentors and will assist in facilitating effective role modeling. Transformational leaders engage others with a common purpose and meaning to achieve a common set of goals (Schwartz et al., 2011)

The majority of the articles used new graduate nurses from the population that met specific study criteria. The criteria included new graduate nurses who worked full time with 1 to 3 years of working experience and completed a new graduate nurse residency program. The majority of the samples were comprised of baccalaureate prepared new graduate nurses who worked in acute care settings. The average ages ranged from 26 to 36 years of age. Over half of the participants were Caucasian and female.

Seven out of the nine studies reviewed were quantitative in nature and utilized a variety of designs and data collection instruments. Halfer et al. (2008) and Hickey (2009) used a descriptive study design to obtain the perceptions of new graduate nurses and new graduate nurse preceptor. Bratt and Felzer (2011) used a repeated measures design to compare new graduate nurses' perceptions of their work environment and professional practice prior to the start of the program, midpoint and completion. The level of evidence for the majority of the studies would be a Level 3. Ferguson (2011) utilized a guided theory design, to increase the understanding of the concept of mentoring. McDonald et al. (2010) used audio-taped interviews that were transcribed and analyzed for themes. The majority of studies have a small sample size and are the starting point for larger studies in a field not yet widely researched. None of the studies used the same tool or survey for the data collection.

The authors agreed that preceptors and mentors that were good role models, honest, friendly, and had a positive attitude contributed to a positive outcome for new graduate nurses' role transition, job satisfaction and organizational commitment. The literature also suggests that

mentoring programs helped to increase critical thinking skills, decision making, clinical competency and professional satisfaction while job stress and anxiety decreased. One study found that nurses who worked night shift showed significantly more ability to identify work resources, manage the demands of the job and had more information to perform the job effectively (Halfer et al., 2008). One study found retired nurses who serve as a mentor could decrease burnout, increase job satisfaction and retention while being conscious of the budget (McDonald et al., 2010).

All of the studies agree that mentoring and preceptor programs are beneficial to new graduate nurses. Significant improvement in job satisfaction and clinical competency can be gained from a structured new graduate nurse residency program. Programs to prepare mentors and preceptors for their role where encouraged in two of the studies. Bratt and Felzer (2011) stated that although new graduate nurse residency programs are a positive influence to decrease turnover and increase quality care further research is needed on organizational commitment. Halfer (2011) concluded that managers should make sure the preceptor and mentor are a good fit and residency programs extended beyond 1 year.

More research is needed on formal new graduate nurse residency programs. The majority of reviewed studies showed an increase in retention of new graduate nurses who attended a residency program of 12 to18 months. A longer mentoring program may show an increase of positive results and organizational commitment. From the literature review, mentors should be separate from preceptors, allowing the new graduate the opportunity to discuss challenges during the residence. Utilizing retired or experienced volunteer nurses as mentors may decrease budget restraints often associated with mentoring programs. Mentors and preceptors require a formal training program to prepare them for the challenges that may arise while building a relationship

with new graduate nurses. Programs to prepare preceptors for their role as authentic leaders would be helpful with new graduate turnover (Giallonardo et al., 2010).

# Chapter III

## Methodology

The following section describes in detail the methods used in this study. This chapter will begin by describing the study setting and population, sampling process, the intervention and control arms. This chapter will conclude with data collection instruments and an explanation of the data analysis procedures.

The problem of early attrition among graduate nurses is a common issue plaguing American healthcare systems. Reducing this problem can help prevent unnecessary wasted dollars and time and promote patient safety. The principal goal of this study is to assess whether a 1-year structured mentorship and preceptor program based on the revised Burns transformational leadership model can reduce the turnover rate of newly hired graduate nurses at 6, 12, 18 and 24 months. The total duration of the study will be 5 years and recruitment will occur within the first 3 years in a staggered manner. Secondary outcomes will include job satisfaction, work commitment, engagement and skills needed for the transition. The intervention will provide a supervised observation and mentoring program for new graduate nurses in role transition in order to assess for and avoid problems that may lead to eventual attrition. In order to accomplish this goal the plan is to assign both a mentor and a preceptor for guidance to new graduate nurses over the course of 1 year. The mentorship structure will be based on the framework of revised Burns transformational leadership model (TLM).

The proposed research design will be a randomized controlled trial of a novel graduate nurse residency program. The residency program will be based on advanced theories of leadership that could help reduce the problem of early attrition among newly hired graduated nurses in an acute care hospital setting. The new graduate nurse residency program will provide

for supervised assessment of factors that could promote long-term job satisfaction, healthy work habits, and early problem resolution. The project team will submit the proposed study to the hospital's Institutional Review Board (IRB) for permission.

**Study Setting, Population, and Sample**

This study will take place at a suburban, 741 bed, magnet certified hospital in Indianapolis, Indiana. This healthcare organization is a tertiary care, level 1 trauma, teaching hospital serving northern and central Indianapolis. The demographic of the patient population includes a mix of indigent, commercial insurance, Medicare and Medicaid payees. It is staffed by more than 1,140 registered nurses and 200 licensed practical nurses that support a variety of inpatient roles, ranging from medical to trauma, surgical services, ICU and emergency department.

Attrition rates at baseline in the previous 3 years will be ascertained from the human resources department of the hospital after institutional permission for the study has been sought. These rates will be compared to the intervention and control group rates and reported at the end of the study using ANOVA statistics.

The study sample will be limited to inpatient acute care nurses who are working within medical-surgical, neurology, orthopedic and oncology units. These care delivery areas are chosen to minimize the heterogeneity of the sample while maximizing enrollment of appropriate subjects for the study.

After the appropriate IRB and institutional approvals have been obtained, 50 newly hired graduated nurses will be recruited for the study, 25 in the intervention arm and 25 in the control arm. The convenience sample of 50 nurses will be randomly assigned to each of the intervention and control arms using a computerized randomization process. The inclusion criteria include

graduation from an accredited baccalaureate-level nursing program, being hired within the previous 2 months before starting the residency program and willingness to commit to participation in an intensive year-long residency program. Participants must also be able to read and speak English and follow agreed upon instructions.

**Recruitment and Enrollment Process**

The investigator will invite potential research subjects to participate in the study by posting descriptions of the study on bulletin boards, hospital website, through work-related mailings, and specific announcements at staff meetings. Nursing mangers will notify the investigation team immediately after hiring the new graduate nurse so that the nurse can be invited to participate in the study. Interested subjects will be invited to attend a recruitment session following their first day of orientation to the unit. During this session informed consent will be obtained. After this is done the project team will administer a short recruitment questionnaire designed to assess basic parameters such as interest in the study, subject demographics, expected participation and other factors that could affect early attrition from the study. The investigator aims to screen a convenience sample of up to 50 nurses, over a 2 year period, in order to obtain the required 50 nurses needed to perform the study. The screening process will be short and will attempt to limit subject attrition for a variety of reasons.

**Intervention**

Mentors will provide high level supervision and guidance related to issues such as job satisfaction, institutional commitment, work engagement and personal issues. Preceptors on the other hand will be assessing clinical skills and job performance parameters. The expectation is that mentors and preceptors will possess the traits the literature review concludes is conducive to new graduate nurse learning environment; friendly, welcoming, supportive, encouraging,

experienced and non-judgmental. Preceptors and mentors will serve as role models who provide prompt feedback to the new graduate nurse to promote guidance and critical thinking skills. The preceptors and mentors will be recruited by the project team. Unit managers will refer preceptors who are experienced in training new hires and demonstrate the important leadership traits. Letters describing the voluntary role of the mentor will be sent out through hospital emails, postings and shared governance meetings. Interested mentor candidates will be selected by the project team. A two day training course will be provided to the preceptors and mentors to assist the team in applying the transformational leadership model.

The mentees will meet monthly with the investigators to assess the status of the new graduate nurse and participation in the residency program. The new graduate nurse will meet bimonthly for 1 hour with mentors for the duration of 1 year. The mentee and preceptor will proceed with full time precepted hours as scheduled until proficiency has been reached. Proficiency will be evaluated by the preceptor and unit manager. In addition the mentors, preceptors and unit managers will meet once a month among themselves to discuss the program progression and identified issues. Any issues and problems that arise could be addressed in a timely manner and appropriate guidance, counseling or training provided to alleviate these problems.

**Control Group**

The control arm of the study will consist of the traditional institutional new hire preceptorship. On these units the preceptor monitoring is inconsistently provided and will be left to the discretion of the hospital policy, specific unit requirements and unit manager's discretion.

**Data Collection**

The outcome variables for the study include attrition from the practice at 6, 12, 18 and 24 months and the scores on the three performance questionnaires including the Organizational Commitment Questionnaire (OCQ), the modified Hagerty-Patusky scale (HPS) and Anticipated Turnover Scale (ATS) administered at each of 6, 12, 18 and 24 months. The OCQ is a 15-item, 7-point Likert scale that ranges from 1 *(strongly agree)* to 7 *(strongly disagree).* This scale measures how strong an individual identifies with or is involved in an organization. In previous studies internal consistency (alpha value) has ranged from .82 to .93. Retest reliability has also been acceptable with multiple types of subjects ($r$ = .53 and .75). In addition the instrument has been shown to have high levels of convergent, discriminant and predictive validity. The Modified HPS Sense of Belonging Instrument measures valued involvement and fit, and antecedent sense of belonging (Newhouse et al., 2007). This tool is a 32 item survey with two domains: Psychological Experience (SOBI-P) and Antecedents (SOBI-A). Each item in these domains consists of a 4-point Likert Scale. Internal consistency coefficients for this tool ranges from alpha = .63 - .76 for the SOBI-A and alpha = .91 - .93 for the SOBI-P. Retest reliability was high at $r$ = .84 for the SOBI-P and $r$ = .66 for the SOBI-A. The third tool, ATS will be used to measure perception of the possibility of voluntarily terminating the position. The ATS is a 12-item, self-report scale with 7-point Likert type responses that measures the perception of voluntary termination. Internal consistency for this instrument has a coefficient standardized alpha of .84 (Newhouse et al., 2007).

Questionnaires will be administered to both the intervention and control arms of the study. The data will be collected during the regularly scheduled mentor meetings during the appropriate months for the intervention arm. For the control arm of the study these data will be

collected at regularly scheduled staff meetings. The data will be stored on locked computer files that are password protected and only accessible to the investigator and team.

**Data Analysis and Statistical Methods**

The data variables consist of the attrition rate and Likert-scale data measures in the OCQ, HP scale and ATS. The investigator will upload data into a computer program and with biostatistical help analyze the data. The attrition rate can be studied using a simple 2-way ANOVA procedure. Attrition rates for the baseline data and the intervention and control groups will be compared with ANOVA statistics and reported out at the end of the study. In addition to the ANOVA results the mean, median, mode and ranges of the Likert scale data will be reported.

**Summary**

This study aims to assist healthcare organizations retain new graduate nurses by giving them the support needed in role transition. Healthcare organizations can empower the new graduate, mentors, and preceptors by utilizing the concepts of the transformational leadership model. A sense of leadership has the potential to increase organizational commitment, sense of belonging and alleviate turnover. The development of a structured new graduate mentoring program will help facilitate these aims and meet the goal of increasing retention of new graduate nurses.

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