EVALUATION OF OUTCOMES OF A NURSE INTERNSHIP PROGRAM

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BY

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ABSTRACT

RESEARCH SUBJECT: Evaluation of Outcomes of a Nurse Internship Program

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During the transition from graduate nurse to professional nurse, new nurse graduates experience stress and new challenges. Many new nurse graduates leave their first employment within one year. Research has not yet clarified the effectiveness of internship programs in improving employment outcomes for new nurses. The purpose of this study is to examine the extent to which an internship program improves sense of belonging, organizational commitment, and anticipated turnover among new nurse graduates. This is a partial replication and extension of a study by Newhouse, Hoffman, Suflita, and Hairston (2007). The study uses a quasi-experimental, posttest only, control group design, and is based on the framework of Donabedian (1966). New nurse graduates (n = 80) who completed an internship program were compared with nurse graduates (n = 80) who did not participate in an internship program. The sample was drawn from nurses who worked on medical and surgical units in a Midwestern non-academic acute care facility. The Modified Hagerty-Patusky Sense of Belonging Instrument (Hagerty & Patusky, 1995), the Organizational Commitment Questionnaire (Mowday, Steers, & Porter, 1979) and the Anticipated Turnover Scale (Hinshaw & Atwood, 1982) measured study variables. Findings of the study may extend what is known about outcomes of a nurse internship program and the influence of demographic variables on outcomes.

Chapter I

Introduction

According to the U.S. Department of Labor, registered nurses are one of the largest professions in the United States (Buerhaus, Staiger, & Auerbach, 2009). In the United States in 2000, the national supply of full-time registered nurses was estimated at 1.89 million, while the demand was estimated at 2 million, a shortage of 110,000 nurses. By 2020, the shortage is projected to grow to an estimated 808,400 nurses (Lavoie-Tremblay, O'Brien-Pallas, Gelinas, Desforges, & Marchionni, 2008). These data have many researchers and analysts attempting to discover ways to combat the shortage and expand plans for retaining registered nurses. Nine frequently mentioned factors that impact the nursing shortage include: supply and demand of labor, society's demand for health care, changes in population, sociocultural factors, changes in the organization of healthcare systems, technology, new graduate nurse transition, satisfaction and retention strategies. The principle of supply and demand, the first factor that directly impacts the nursing shortage, is activated by society's demand for health care, which in turn creates the need for a greater supply of registered nurses. Health care consists of providing services, products and treatments that span from in utero until death and that range from prevention of illness to providing end of life care (Buerhaus et al., 2009).

Changes in population, another factor impacting the nursing shortage, pertains specifically to the aging of America. People free from disease or illness are less likely to use health care services than those afflicted with illness. The rapidly growing population with co-morbidities in America will create a higher demand for services. The rate of increase in numbers of the elderly is expected to accelerate after 2010. This outflow of people is attributed to the births during the baby boom generation. Not only will there be more elderly to consume care, but also more baby boomer nurses will be retiring thus again continuing the pattern of the shortage. Socioeconomic characteristics also increase the demand for health care. As the United States becomes more diverse, the need increases for diversity among nurses. However, only a small percentage of nurses are non-Hispanic and non-Caucasian. Economic strain will limit the recruitment of new nurses, as salaries and benefits decrease (Buerhaus et al., 2009).

Changes in the organization of healthcare in the United States impact the nursing shortage through the cost, quality, and access to health care. Major organizational changes have occurred in health care regulatory agencies at the national and state levels in recent decades. In the 1960s, the Medicaid and Medicare acts were implemented, which allowed older and poor Americans access to health care. In the 1970s, Diagnosis Related Groups (DRGs) were introduced to restrain hospital spending and contain physician billing. Lastly, through the 1980s and 90s Health Maintenance Organizations (HMOs) and Preferred Provider Organizations (PPOs) were developed to contest high rates of health care spending, encourage appropriate use of services, and increase the quality of care (Buerhaus et al., 2009). Legislation continues to drive the reformation of health care organizations today.

Technology also attributes to a high demand for services and increasing costs in health care. Technology, such as CT scans or MRI machines, enable physicians to more accurately diagnose diseases or monitor health conditions, but these advances contribute to rising costs of health care to the insurance companies and consumers (Buerhaus et al., 2009).

New nurse attrition is gaining more attention as high nurse vacancy rates at hospitals are affecting efficiency because of the costs associated with recruiting and orienting replacement nurses (Beecroft, Dorey, & Wenten, 2007). Hospital administrators are evaluating factors that affect new nurse satisfaction during the transition period of student to professional in order to develop comprehensive programs that will increase satisfaction and retention; therefore, reducing turnover.

Further research in needed on these nine factors in order to provide a better understanding of the nursing shortage. A particularly fruitful area of inquiry, and one in which there is a shortage of research, is new nurse attrition and data-driven strategies to address new nurse attrition.

Background and Significance

New graduate nurses have a variety of experiences when transitioning from student to professional. These experiences play an important role in new nurses' job satisfaction and intentions to stay in their current jobs or nursing profession. Beecroft, Kunzman, and Krocek (2001) reported 35% to 69% of newly hired graduate nurses leave their place of employment within the first year. Supportive interventions are needed to decrease attrition (Newhouse, Hoffman, Suflita, & Hairston, 2007). With awareness of

the transition issue, some health care facilities have implemented programs such as residency or internships to aid the period of transition for new nurses.

New nurse attrition can have detrimental effects on healthcare organizations' finances and patient outcomes. New graduate turnover represents a substantial cost to hospitals, reaching at least 100% of a new graduate nurse's annual salary (Reinsvold, 2008). As more new graduates are placed into positions of providing direct and independent patient care faster, there are concerns of about performance ability and experience in taking care of complex patients; negative patient outcomes may result.

With recognition of the current nursing shortage, heath care executives are forced to assess orientation processes and the option of nurse internship/residency programs that may impact new nurse satisfaction in order to increase job stability, satisfaction and retention. Although many factors affect new graduate satisfaction, an understanding of what is satisfying to new graduate nurses will allow administrators to develop strategies such as residency or internship programs that may increase new nurse satisfaction making them more comfortable in their professional nursing role. Providing graduate nurses with support, adequate training, and professional guidance may empower new nurses, increasing their sense of belonging and giving them the confidence to provide quality patient care. This type of job satisfaction may increase new graduate nurses' intentions to stay in their current job and profession. However, research is lacking on the cost effectiveness and outcomes of nurse internship programs.

Problem

Due to the nursing shortage, graduate nurses have become an important focus of hospital recruitment, and administrators are examining factors that affect new nurse

turnover and retention. Graduate nurses experience stress and challenges transitioning roles from student to practicing professional. The rate of attrition among new nurses in their first year of employment has been approximated at 35% to 69%, resulting in millions of dollars in replacement costs for health care systems. The environment of a new graduate's first job may determine the nurses' sense of belonging and job satisfaction. Nurse internship programs have been trialed as a means of improving new nurse job and career satisfaction, but research is sparse on the effectiveness and outcomes of nurse internship programs.

Purpose

The purpose of this study was to examine the extent to which an internship program improves new nurse graduate retention, sense of belonging, organizational commitment, and anticipated turnover. This study was a replication of the Newhouse, Hoffman, Suflita, and Hairston's (2007) study.

Research Questions

The questions that guided this study were:

1. Is there a difference in organizational commitment, sense of belonging, and anticipated turnover for new nurse graduates who completed an internship program in comparison with graduates who did not complete an internship program?
2. Does participating in an internship program result in higher retention of new nurse graduates than those who did not participate in an internship program?

Conceptual Framework

The Donabedian (1966) model provided the framework used in this study. This model, developed by the physician Avedis Donabedian, examined ways to assess the quality of health care based on structures, processes, and outcomes (Reed, 2008). Donebedian defined structure as the environment in which health care is provided. Process was defined as the method by which health care was provided, and outcome as the end result of the health care provided (Castaneda-Mendez, 1999). This framework can be applied at the system, institution, or individual level to assess actions that lead to improvement by manipulating structure and process variables. Evaluating outcomes allows researchers to gain an understanding of the relationship that exists between the structure and processes. These factors were valuable in determining which variables within the structure or process may be manipulated in order to achieve outcome goals (Newhouse et al., 2007). The relationships among structure, processes, and outcomes are popular and fruitful areas of research in health care today. Donabedian's work provides common terminology for researchers and clinicians to advance knowledge about system changes.

Donabedian (1966) conceptualized outcomes to include physical as well as social and psychological functions; outcomes may include client attitudes such as satisfaction, health-related knowledge, a health-related behavioral changes (Van Doren, Bowman, Landstrom, & Graves, 2004; van Driel, De Sutter, Christiaens, & De Maeseneer, 2005) Donabedian's model has been applied to quality projects and research studies in hospital settings (Best & Neuhauser, 2004; Van Doren et al., 2004), nursing homes (Boumans, Berkhout, & Landeweerd, 2005), rehabilitation centers (Hoenig, Horner, Duncan, Clipp,

& Hamilton, 1999), and in other countries (Chen, Su, Hsieh, & Wang, 2003; Liu & Wu, 1997).

Applying Donabedian's (1966) model, the study examined the concepts of new graduates (structure), socialization (processes), and job commitment and intent to leave (outcomes). A comprehensive internship program will be the intervention used in the application of this conceptual model. This theoretical framework is a replication of the one used in the Newhouse et al. (2007) study.

Definition of Terms

Organizational Commitment.

Conceptual: How a nurse employee identifies or is involved with an organization.

Operational: Total score on the Organizational Commitment Questionnaire (OCG) measures how strongly an individual identifies with or is involved in an organization (Mowday, Steers, & Porter, 1979).

Sense of Belonging.

Conceptual: A nurse's feeling of being connected to others within a group setting.

Operational: Total score on the Modified Hagerty-Patusky Sense of Belonging Instrument was used to measure valued involvement and fit (Hagerty & Patusky, 1995).

Anticipated Turnover.

Conceptual: A nurse's perception of the probability of voluntary employment termination.

Operational: Total score on the Anticipated Turnover Scale was used to measure perception of the possibility of voluntary position termination (Hinshaw & Atwood, 1982).

Internship.

An intensive program during which a new graduate nurse spends several months to a year gaining practical experience with supervision and coaching to enhance clinical and cognitive skills. This program incorporates hands-on practice as well as formally held classes. Respondents will acknowledge that they participated in an internship as defined conceptually.

Limitations

The study was limited by the convenience, non-random sample of new nurse graduates with less than one year of experience. In addition, validity was not cited for all the study instruments; therefore, all factors affecting organizational commitment, sense of belonging, and anticipated turnover may not be captured. The hospital units participating were selected non-randomly and may not be representative of other departments or organizations in a health care system. New nurses may not accurately report their intention to leave a position.

Assumptions

Assumptions of the study included:

1. Participants will answer questions in an honest manner.
2. New nurses who are satisfied can be retained.
3. Healthcare organizations that do not offer a comprehensive internship program for new graduates will experience more turnover.

Summary

New graduate nurse turnover has unfavorable effects on the nurse work environment, patient outcomes, and financial and human resources within healthcare organizations. Comprehensive internships may provide support, adequate training, and professional guidance to empower new nurses, increasing their sense of belonging and giving them the confidence to provide quality patient care. The purpose of this study is to examine whether an internship program improves new nurse graduate retention, sense of belonging, organizational commitment, and anticipated turnover. Findings will provide information on effectiveness of internships in new graduates in the first year of employment and improve new graduate nurses' transition from student to professional practice.

Chapter II

Review of Literature

New graduate nurses have a variety of experiences when transitioning from student to professional. These experiences play an important role in new nurses' job satisfaction and intentions to stay in their current jobs or in the nursing profession. New nurse attrition can have detrimental effects on healthcare organization finances and positive patient outcomes. With recognition to the current nursing shortage, heath care executives are forced to asses orientation processes and nurse internship/residency programs that may impact new nurse satisfaction in order to increase job stability, satisfaction and retention. The purpose of this study was to examine the extent to which an internship program improves new nurse graduate retention, sense of belonging, organizational commitment, and anticipated turnover.

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Organization of Literature

The literature review reveals selected studies that address new graduate nurse transition from student to professional, nurses' job satisfaction, and nurse residency

programs. The studies include some that employed qualitative methods to reflect new graduates' thoughts and feelings related to their experiences during their first year of employment, as well as some studies that employed quantitative methods to explore the significance of the concepts being examined.

New Graduate Nurse Transition

New nurse graduates have high rates of turnover in their first year of employment. With hospital administrators bearing the cost of orientating new employees, assessments of the role transition of students to professionals were being made to identify factors that contribute to new nurse attrition. Godinez, Schweiger, Gruver, and Ryan (1999) described the process of role transition from graduate nurse to staff nurse. Kramer's (1974) Reality Shock was the theoretical framework for this study. Kramer described the initial work experience of graduate nurses and the "shock" of conflicting expectations as graduates move from the classroom to service setting (Godinez et al.).

This study was conducted in a 250-bed, public teaching hospital that was part of a regional medial center. The population consisted of new graduate nurses. The sample contained 27 voluntary participants. Demographic data revealed that 25 graduate nurses were female, 26 white, and all but two participants under the age of 30. Thirteen of the participants graduated from a baccalaureate program and 14 from a diploma program (Godinez et al., 1999).

The instrument used in this study was developed by the authors. This tool was described as a daily feedback sheet referred to as the "log." The log was designed to aid in communication among all persons involved in the orientation of graduate nurses and was collected during the first three weeks of their orientation. The log contained

information on patient assignments, preceptor/graduate nurse comments, actual learning, and future goals. Each member of the research team read all of the logs to become familiar with responses. Similar responses or quotes were assigned a code and placed on index cards. This process by the authors continued until the group obtained 100% inter-rater reliability (Godinez et al., 1999).

There were five themes that emerged from the analysis of all the logs; real nurse work, guidance, transitional process, institutional context, and interpersonal dynamics. The first theme titled "real nurse work" was identified in the study. This theme was defined by the practice role of the staff nurse which included technical skills, assessment skills, teaching, and admission and discharge processes. The second theme was labeled "guidance". This theme was defined by the need for learning and supervision. The responses from this category were provided by the preceptor and included questions asked by the new graduates, personal advice given by the preceptor, and professionalism and quality of care displayed by the new nurse (Godinez et al., 1999).

The third theme was termed "transition" and defined by experiences necessary for growth, including organizational skills, patient load, and learning opportunities. The fourth theme identified in the study was titled "institutional context". This theme was defined by the integration of hospital policies and procedures, which included computers, unit routines, unit orientation, and charting. The fifth and final theme was titled "interpersonal dynamics". This theme was defined by feelings, patient interaction, graduate nurse/preceptor interaction, eager and willingness, and skills and knowledge. The authors constructed a model based on the findings from this study. The model illustrated the transition process from graduate nurse to staff nurse and consisted of

balancing learning opportunities with organizational abilities while providing care for an increasing number of patients (Godinez et al., 1999).

The authors concluded that the integration of graduate nurses to the role of a staff nurse was a dynamic and interactive process. This process required preceptors to guide new nurses through learning opportunities while providing regular feedback. While the problem of nurse turnover continues, the solution may lie between education and service areas, as indicated in this study. The authors in this study stressed the importance of constructing mutual efforts around the understanding that role transition requires time, practice, and guidance (Godinez et al., 1999).

Scott, Engelke, and Swanson (2008) also investigated new graduate nurse transition. This study focused on the influence of anticipatory and organizational variables on the job and career satisfaction of new nurses, their intent to leave current position, actual new nurse turnover, and intent to leave the nursing profession. The background of this study emphasized the importance of the new graduate's first year in the profession and stated that this critical time influenced their long term professional development and satisfaction.

For this study, a three-part conceptual model was used. The model addressed new graduate nurse transition into the workplace in the first two years of nursing practice. The first phase of the model defined anticipatory socialization, which is what happens prior to employment. Factors analyzed in this piece of the framework included education, experiences, and expectations. The researchers stated that the phase of anticipatory socialization contributed significantly to the expectations the new graduates brought to their first job. The second phase of the framework defined organizational socialization.

Factors that contribute to this part of the framework included orientation, mentoring, preceptor relationship, work stress, unit culture, workplace relations, autonomy, and personal attributes. The third phase of the model defined socialization outcomes. These outcomes measured job satisfaction, career satisfaction, organizational commitment, turnover, and intent to leave/stay unit or profession (Scott et al., 2008).

The sample of the study consisted of 329 new graduate nurses randomly sampled from the North Carolina Board of Nursing database. These new graduates were actively employed no less than six months or longer than two years. These graduates were surveyed using a seven-question instrument developed by the North Carolina Center for Nursing (NCCN). Results from the study were determined through simple descriptive analysis of the data (Scott et al., 2008).

Results of the study indicated that the sample was predominately white and female. The mean age of the participants was 29 years. Hospitals were the main work setting, and educational preparation was divided equally among BSN, ADN, and Diploma programs. Most of the participants had received an orientation and attended continuing education (CE) programs. The survey revealed that 54.1% of new graduate nurses were dissatisfied with their current job and 55% had already left their first nursing job. In this study, 58.7% of new nurses felt that they received inadequate orientation (Scott et al., 2008).

The study further revealed that the respondents reported differences in the amount of orientation received, ranging from as little as a half of week to as much as one year. Orientation length was significant among turnover findings. New graduate nurses with higher turnover rates reported an average of almost two weeks less orientation when

compared to new graduate nurses who did not turn over. Results indicated a 45% turnover rate of new graduate nurses who felt satisfied with their orientation compared to 60% of new nurses reported that orientation did not meet their needs. New graduates who reported job and career satisfaction were completely satisfied with their orientation. New graduate nurses dissatisfied with their current job and career were 5.8 more times likely to also report weekly staffing shortages. New graduate nurses who reported high levels of job satisfaction were 4.2 times more likely to report high levels of career satisfaction in nursing (Scott et al., 2008).

Significant findings of the study suggested that the majority of new nurses experienced job dissatisfaction ($p = .001$). Orientation was found to play a critical role in a new graduate nurse's first job, promoting job satisfaction and retention. Management and leaders in nursing must continue to find ways to meet the needs of new graduate nurses. Appropriate funding to support adequate orientation programs and fully staffed units were ways nurse managers could begin to meet the needs new nurse graduates to increase job satisfaction and retention (Scott et al., 2008).

In a related qualitative study, Thomka (2001) evaluated descriptions of experiences and perceptions of RNs resulting from interactions with RN colleagues during the time of role transition from nursing school graduation through the first year of professional practice. There was no theoretical framework cited for this study.

This study was conducted at a large urban mental health facility in southeastern Wisconsin (Thomka, 2001). The convenience sample consisted of sixteen voluntary participants. Inclusion criteria for participants in the study were registered nurses working

as staff nurses and a time parameter of fifteen years or less of professional practice was used. A sufficient sample size of 16 was obtained.

The instrument used for this study was a 6-item questionnaire developed by the investigator to bring forth thoughts and emotional responses of the participants regarding the orientation process as a new graduate and expectations of initial employment. The questionnaire asked participants to provide demographic information; descriptions of how they perceived the way they were treated by their nursing colleagues; a demonstration in which colleagues valued a new graduate; and descriptions of ways that colleagues were helpful or not helpful in their professional development. The participants were also asked if they had thoughts of leaving nursing due to poor treatment by colleagues and what an ideal transition from graduate nurse to professional might look or feel like (Thomka, 2001). There was no reliability or validity reported on this instrument.

Findings showed sixteen RNs completed the survey; the majority of the RNs were female with the average age of 42 years. When asked to describe orientation, participants used phrases like “intense”, “very helpful”, and “well organized.” Other descriptors associated with orientation were directed toward the person that they were to follow during their new job transition. Descriptions commonly used were “charge nurse,” “mentor,” and “preceptor.” The most common time frame identified for orientation was six weeks. When asked about expectations of initial employment, the participants offered varying responses. Several nurses reported that expectations were not “clear;” others stated, “I thought it would be easier”, “I expected more orientation”, “I expected more support from the RNs”, and “overwhelming.” These phrases indicated that the transition from student to professional was a stressful period (Thomka, 2001).

By responses indicated on the questionnaire, the nurses experienced both positive and negative treatment by colleagues. Several nurses reported colleagues as being "supportive," "helpful," and "patient." Other nurses reported that some colleagues lacked "patience", were "critical", and treated them "like a young kid." Most nurses that participated in the study (n = 13) described positive situations which were helpful in the development of their professional role; and eleven nurses provided examples that did not promote professional growth. A few of the participants (n = 4) stated they had thought of quitting nursing because of the way they were treated by their colleagues, but the majority of the nurses replied "no." Themes that emerged from RNs who gave suggestions on ideal transition, included "longer orientation period", "mentors", "someone who nurtured, taught/reinforced skills", and "experienced RNs" (Thomka, 2001).

The author concluded this study by noting the importance of qualitative studies in revealing nurses' perceptions. This study and further research can be utilized to develop positive orientation programs and mentoring strategies for new nursing graduates that will be reflective in promoting retention and quality patient care (Thomka, 2001).

Delaney (2003) also used qualitative data to examine and depict the experiences of graduate nurses as they transitioned from student to nurse. A phenomenological approach was used in this study to examine and describe graduate nurses' experiences during orientation.

The sample consisted of ten female new graduate nurses ranging in age from 22 to 40 years. Seven of the nurses were single, two married, and one divorced (Delaney, 2003). Inclusion criteria for participants in the study were graduates had participated in

the hospital's "caring based orientation," able to clearly express their experiences, and did not directly work with the investigator during orientation. Participation in the study was voluntary and all nurses signed a letter of informed consent.

The participants in this study were interviewed. This process took place in a quiet and private room in the hospital to increase the comfort level of participants and encourage free expression (Delaney, 2003). These interviews lasted from 30 to 60 minutes and were audio taped. The responses were transcribed. The analysis of data consisted of reviewing each of the participant's statements. There were 224 significant statements extracted and categorized by meanings. These meanings were then reduced into ten themes.

The first theme identified within the study was termed "mixed emotions." Descriptions from this theme included new nurses' feelings of pride and accomplishment and also negative feelings, such as being nervous and scared (Delaney, 2003). The second theme was call "preceptor variability." This theme focused on the new nurses' perception of their preceptor. Preceptors that were seasoned and knowledgeable brought positive feelings and descriptions. Preceptors who were less experienced or inconsistent brought out negative feelings. The third theme was called "welcome to the real world." This theme brought forth statements of the new nurses' ideology of the differences between work and school. Nurses made statements that they were "scared with how much responsibility was on me." Other statements generated from this theme related to time management and caseload.

The fourth theme was "stressed and overwhelmed." This theme described new graduate feelings of anxiety and insecurity when taking on new tasks and added

responsibilities (Delaney, 2003). The fifth theme was called “learning the system and culture shock.” This theme described feelings the new graduates had when learning the procedures of the institution and socialization. New nurses stated that understanding the institutional procedures was frustrating. Another focus in this theme was about new graduates fitting in socially to the unit culture. When new graduates felt accepted, it generated positive statements. When graduates did not feel accepted into the unit, they reported feeling “rejected.”

In the sixth theme termed “not ready for death and dying,” graduates expressed having difficulty coping with the issue of death and dying with their patients and families (Delaney, 2003). Other graduates stated not being ready to handle end of life issues. The seventh theme identified was called “dancing to their own rhythm.” With the progression of orientation, graduates began to prioritize and develop their organizational and time management skills. The eighth theme termed “stepping back to see the view” allowed the new graduates to self reflect on their orientation process. This process allowed the graduate to evaluate their overall progress to identify their personal strengths and weaknesses.

The ninth theme was labeled “the power of nursing,” which allowed new nurses to express their value of nursing (Delaney, 2003). All nurses expressed stress in addition to the positive impact their work had on themselves and their patients. The tenth and final theme that emerged from the study was “ready to fly solo.” Within this theme, new graduate nurses expressed that their orientation was a positive experience where they felt welcomed and supported. Each participant verbalized readiness to end orientation and felt that twelve weeks was a sufficient orientation period.

The authors identified stress as the most common experience of all participants in the study. Although the participants had feelings of stress, over time their confidence increased as they developed organizational skills. During the orientation process, preceptors had a significant effect, positive and negative, on the transition process and the outcome of the graduate nurse (Delaney, 2003). This study also revealed that new nurses felt unprepared to deal with end of life issues. With this knowledge, future research can center on developing orientation programs that include criteria and education for preceptors and educational courses that focus on end of life issues. It is imperative that graduate nurses be provided with a transition framework that facilitates their growth and the achievement of their potential. Promoting a positive orientation experience for new graduates would decrease negative feelings; and therefore, reduce new nurse attrition or possibly influence thoughts of leaving the profession.

In a study with a similar focus, Casey, Fink, Krugman and Propst (2004) identified some stresses and challenges experienced by graduate nurses during orientation that may influence graduate nurse retention. Although no theoretical framework was cited for this study, the implied conceptual framework consisted of new graduate nurse transition into practice, perceived stress, and nurse retention.

There were 784 surveys distributed with 270 (34%) respondents. The population was new graduate nurses from six acute care facilities in the Denver metropolitan area. Participants in the study completed the survey voluntarily (Casey et al., 2004).

A nurse experience survey was developed by two of the authors in this study. The content of the tool was adapted from a comprehensive literature review and pilot tested for content validity and reliability (Casey et al., 2004). The instrument used to collect

data for this study was revised multiple times and collected both quantitative and qualitative data. Revisions included minimal changes in wording and the addition of some statements for clarification. The survey took approximately 15-20 minutes to complete. The revised Casey-Fink Graduate Nurse Experience Survey consisted of 5 sections: Demographics: Skills/Procedure performance (3 open ended questions); Comfort/Confidence (25 items using a Likert Scale Response, strongly disagree to strongly agree); Job Satisfaction (9 items); and Work Development/Difficulties in Role Transition (4 open ended questions). The tool was piloted on twelve graduate nurses and tested for content validity using an expert panel of nurse directors and educators in both academic and private hospital settings. The reliability of internal consistency on the original tool was established with a Cronbach's alpha of .78. These items portrayed levels of comfort and confidence with various practice skills. The article stated there was additional reliability testing on the revised instrument, which indicated only little change in internal consistency.

After analyzing the demographic profiles of the participants, the data revealed the average participant was a Caucasian female, age 35 years or younger with previous healthcare experience (Casey et al., 2004). Almost all of the participants (95%) at the academic teaching hospital had a bachelor of science in nursing compared to 71% of the participants at the community hospitals. At the academic teaching hospital, more than 59% of the participants had three more preceptors during the orientation period compared to 39% of the participants at the community hospitals. The length of orientation at the community hospitals ranged from six to ten weeks and varied by hospital. Orientation length at the academic teaching hospital ranged from 12-24 weeks. Although the

participants worked in a wide variety of clinical areas, the length of orientation periods that were reported were for medical/surgical orientation. Participants were surveyed at various times during the first year of practice, and the data were divided into 4 time periods; 0-3 months, > 3 to ≤ 6 months, > 6 months to ≤ 12 months, and > 1 year.

Investigator-generated surveys were administered to participants (n = 209) (Casey et al., 2004). One area of survey focus was used to collect data concerning skills and procedure performance. Eighteen frequent activities and procedures were listed on the survey and participants were asked to choose three skills/procedures with which they were most uncomfortable performing. Many additional skills were written in by the participants forcing a revision of the survey. The revised survey was used for subsequent data collection (n = 61). The revised survey enabled participants to self- enter 3 skills/procedures they were uncomfortable performing. The data from both surveys were combined and analyzed. Approximately, 54 procedures were identified by the participants; however, 15% identified 7 skills/procedures in the survey that they were uncomfortable performing. The seven skills/procedures new nurses felt most challenging were chest tubes, IV skills, epidurals, central lines, blood administration, patient controlled analgesia devices, and code blue situations. The authors noted the importance of finding that even after one year of practice, 41% of the new nurses were still uncomfortable giving care to patients with epidural catheters. There were only 4% of new graduate nurses that were comfortable performing all skills and procedures of the participants, and only 4% felt comfortable performing all skills/procedures.

Another survey in the Casey et al. (2004) study was given to participants to determine level of comfort and confidence performing as a professional nurse. The

original survey had 20 statements, but, after a revision, 25 statements were measured. Five additional statements were added to address the support from preceptors, managers and peers of the participants. Five statements were found to be of significance using chi-square analysis. Results of all participants (n = 270) showed a statistically significant difference in comfort and confidence scores by level of experience using ANOVA testing procedure. Participants initially rated themselves as "comfortable and confident". Between the time period of 3 and 12 months, confidence levels declined and continued to decline at 6 to 12 months. Comfort and confidence in the RN role increased with the highest rating after one year of experience.

Participants (n = 270) were also surveyed regarding job satisfaction. A nine-item questionnaire measured salary, benefits and work schedule. More than a third (39%) were satisfied with their salary; 70% were satisfied with their benefits; and 65% were satisfied with their vacation time (Casey et al., 2004). Participants were satisfied with their overall work schedule (84%); however, only 41% were satisfied with the opportunity to work "straight days." The weekend work schedule was reported as 65% satisfactory. Participants (40%) had the perception that there was little opportunity for career growth in their particular employment setting. Participants (73%) were satisfied with the positive feedback they received from managers, preceptors and co-workers. These data excluded participants with greater than one year experience because of a lack of participants in the phase two category. Participants in phase 1 experienced less job satisfaction as they became more experienced ($p = .02$); whereas, phase two participants had higher job satisfaction as their experience progressed ($p = .008$).

A fifth part of the survey consisted of open-ended questions concerning the work development and the difficulties of transitioning from student to RN. Upon analyzing this qualitative data, six themes were identified from the participants' responses (Casey et al., 2004). The following themes were identified and ranked in order of frequency:

1. *Confidence.* Participants expressed that, throughout the first year of practice, they felt inadequacies in ability to care for patients and clinical knowledge. Participants expressed more confidence in their abilities as time progressed toward the one year mark (Casey et al., 2004).
2. *Peer and preceptor relationships*. Participants stated they felt a lack of support and respect from experienced nurses. Many reported having several preceptors during the orientation period, which led to inconsistencies in the orientation (Casey et al., 2004).
3. *Dependence and Independence*. Participants struggled with becoming independent in their role but relying on experienced nurses. Comments from the participants revealed a struggle between dependence and independence throughout all time frames. Participants, by the end of the first year of practice, described being able to function more independently and rely less on others (Casey et al., 2004).
4. *Work environment*. Many issues were revealed by the participants such as, nurse-patient ratio, understaffing, difficulty adjusting to shift work, lack of time off, frustration with pay and role expectations (Casey et al., 2004).
5. *Organization and priority setting*. Initially participants described lack of organization skills as a barrier to their performance. Many participants

expressed that as time progressed, they became more proficient in this area (Casey et al., 2004).

6. *Physicians' relations.* Lack of confidence and feelings of insecurity in relation to communicating with physicians were described by the participants throughout the first 6 months. During the last 6 months of their first year, these difficulties were not expressed by the participants (Casey et al., 2004).

Many transitions must occur for student nurses to successfully become professional nurses. The authors concluded that graduate nurses perceived it took at least one year for them to feel comfortable and confident in their nursing role (Casey et al., 2004). The one-year time frame exceeded the usual orientation period for new graduate nurses at most facilities. Another conclusion cited the role of the preceptor was significant for graduate nurses to become competent in their role, as well as to have optimal job satisfaction (Casey et al.).

Mentoring was often viewed as an activity closely related to precepting. As with preceptorships, the mentoring of new nurses may ease the transition into a new employment situation, potentially reducing stress, enhancing confidence, and increasing retention. Beecroft, Santner, Lacey, Kunzman and Dorey (2006) evaluated a mentoring program for new graduate nurses over a six-year time frame.

> The aims of this study were to determine whether mentoring was successful and if new graduates: (a) were satisfied with their mentors; (b) received guidance and support; (c) were able to attain socialization into the nursing profession; (d) benefited from having a role model for acquisition of professional behaviors; (e) maintained contact with mentor; and were satisfied with mentorship. (p. 738)

There was no theoretical framework identified in this study.

This study was conducted at one healthcare facility in the United States. The sample for the study consisted of 318 new graduate nurses who were part of a residency program. Criteria for the study included being a new graduate nurse and participating in the hospital residency program over a one-year time frame. Participants were surveyed during the last week of the program. Demographics from the study revealed that over half of the sample (59%) was 23-30 years of age and baccalaureate prepared nurses (Beecroft et al., 2006).

The evaluation of mentoring in the study was taken from a larger study that evaluated a nurse residency program. A survey was developed by a design team of nurses who were actively involved in the development of RN residency and mentoring training (Beecroft et al., 2006). The survey provided quantitative and qualitative data about the mentoring experience. The survey consisted of eight questions with yes or no responses with a section for additional comments provided with each question. The survey data were double checked for accuracy and reliability. The responses were summarized with descriptive statistics using SPSS. The summary scores were calculated into percentage of total responses. After content analysis from respondents' surveys, each comment was broken down into shorter segments and categorized by single subject or theme. The themes that emerged from this study were satisfaction, support, program requirements, and socialization. In addition, data were analyzed using descriptive statistics and logistic regression to see whether demographic variables predicted successful program outcomes.

The results from the satisfactory theme indicated that 83% of respondents were satisfied with their mentor-to-mentee relationship and 17% dissatisfied (Beecroft et al.,

2006). When analyzing the theme of guidance and support of mentoring, one item asked, "Did your mentor provide the guidance and feedback you would have liked?" (p. 740). A response of 80-90% of participants answered positively. A small percentage of respondents (6-10%) commented negatively, reporting that having to meet with their mentor added stress due to scheduling conflicts and some respondents felt they did not need a mentor. In relation to socialization, 28-43% of respondents reported having a mentor was beneficial over time. Comments from this theme were positive but minimal; respondents reported mentors to be "great role models" to new nurses and provided them someone to talk to when needed.

The study also analyzed the regularity of meetings and contact between mentors and mentees. Fifty-four percent of the overall participants who met with their mentor on a regular basis reported satisfaction with guidance and support. Lastly, the study discussed new nurse satisfaction with mentorship. Fifty-eight percent of the respondents surveyed had a positive response, showing evidence of satisfaction. Nineteen percent of dissatisfied respondents reported the mentors needed more training, time constraints made it difficult to meet, and the relationship lacked connection (Beecroft et al., 2006).

This study revealed that new nurses who participated in mentoring programs were more satisfied with their jobs. Successful mentoring programs that provided adequate support and guidance to a new graduate nurse aided the transition from student to professional. Mentors that can integrate new nurses into the social culture of their organization while promoting self-esteem and confidence decreased stress and increased new graduate retention.

Nurses' Job Satisfaction

New graduates may experience stress and role conflict when transitioning from student to professional. The environment of a new graduate's first job will determine the nurses' sense of belonging and job satisfaction. Winter-Collins and McDaniel (2000) assessed the relationship between sense of belonging and job satisfaction in the new nurse graduate. Kramer's (1974) Reality Shock framework was the conceptual framework used for this study. Kramer identified a supportive environment as one element to help the new graduate overcome the stress of their first job.

The population consisted of 250 new graduates randomly selected from an Indiana Health Professions Bureau mailing list of new graduates who took the state licensure exam in the time frame of January 1996 to January 1997 (Winter-Collins & McDaniel, 2000). A sample of 107 nurse surveys were obtained. A criterion for the sample was defined by being a new graduate who had received their license in the last eighteen months.

The McCloskey-Mueller Satisfaction scale (MMSS) (McCloskey & Mueller, 1990) was used to assess satisfaction among the new nurses being surveyed. The MMSS contained 31 items that included eight areas of satisfaction. The areas included intrinsic rewards, scheduling, balance, coworkers, interaction opportunities, professional opportunities, praise, and control. Each item was rated using a Likert-type scale. The internal consistency co-efficient of this tool was reported at 0.89 to 0.90 (Winter-Collins & McDaniel, 2000). Sense of belonging was measured by the modified Hagerty-Patusky Sense of Belonging Instrument (Hagerty & Patusky, 1995). This instrument utilized a Likert type scale and reported a content validity index of 0.83 and reliability of 0.86

(Winter-Collins & McDaniel, 2000). Descriptive statistics were used to analyze demographic data. Pearson correlation was used to examine the relationship between sense of belonging and job satisfaction (Winter-Collins & McDaniel, 2000).

Results of demographic characteristics indicated that 69% of the respondents worked in the hospital setting, 19% in long term care, 6% in community health, and 2% in home health. The mean age for participants ranged from 23 to 32.2 years with 61% having an associate's degree and 38% a baccalaureate degree (Winter-Collins & McDaniel, 2000).

When participants rated their satisfaction, the ratings ranged from 1.9 to 4.5 on a five-point scale. Low scores indicated low satisfaction, while high scores were associated with high levels of satisfaction (Winter-Collins & McDaniel, 2000). When comparing the eight areas of satisfaction, new graduates were most satisfied with coworkers (4.0). Participants were least satisfied with professional opportunities (2.9). No significant differences in means for sense of belonging and job satisfaction were noted between ASN or BSN graduates. In addition, there was little variation in means across different work settings.

Significant correlations were noted between sense of belonging and several study variables, specifically interaction opportunities ($r = 0.38$, $p = 0.000$), praise ($r = 0.35$, $p = 0.000$), control ($r = 0.35$, $p = 0.001$), coworkers ($r = 0.33$, $p = 0.001$), and schedule ($r = 0.28$, $p = 0.006$). The strongest relationship was between sense of belonging and total satisfaction of participants ($r = 0.40$, $p = 0.000$) (Winter-Collins & McDaniel, 2000).

Findings from this study suggested that new graduate satisfaction was strongly associated with sense of belonging. Another notable finding was the correlation between

new graduate sense of belonging and high satisfaction with coworkers. This information may validate that coworkers can provide a sense of belonging in the work environment, which leads to higher satisfaction of new graduates. The authors of this study stated that this finding was consistent with Kramer's (1974) proposition that a unified group helps new graduates deal with reality shock (Winter-Collins & McDaniel, 2000). Future research is needed on this topic to explore new graduate satisfaction with their orientation process and what increases a new graduate's sense of belonging.

In a similar study, Roberts, Jones, and Lynn (2004) examined job satisfaction of recent RN graduates working in various specialty areas and their intent to stay in their current positions. The sample of the study consisted of 275 recent graduates from a baccalaureate program of a university in the southeastern United States. Questionnaires were mailed to the sample of graduates. There were 123 completed packets returned to the researchers that accounted for a return rate of 45%. Criteria for the study included being a new graduate nurse, baccalaureate prepared, from a predetermined university in the southeastern United States.

The McCloskey-Mueller Satisfaction Scale (MMSS) (McCloskey & Mueller, 1990) was used to assess satisfaction among the new nurse being surveyed. The MMSS scale contained 31 items with one additional question added by the research team. The additional question asked new RNs the probability of remaining in their current position for one year. The MMSS scale contained 31 items that included eight dimensions of satisfaction. The areas included extrinsic rewards, scheduling, family/work balance, co-workers, interaction opportunities, professional opportunities, praise and recognition, and control and responsibility (Roberts et al., 2004). Each item was rated using a five-

response option ranging from “very dissatisfied” to “very satisfied.” The graduates were also asked about the importance of each of the 31 items. Each of these items were also rated using a five-response option ranging from “very unimportant” to “very important.” The reliability of the MMSS used for this study in measuring satisfaction ranged from .48 to .84 with only 2 variables falling below the stated .70 criteria. For analysis of the categories of nurses, (hospital-based versus outpatient based), a one way analysis of variance (ANOVA) was calculated. For each analysis, the level of significance was set at alpha = .05. Demographics from the study revealed that the typical respondent was a 26-year old white female, graduate of a 24 month upper division school, single, employed full time in nursing and had worked less that a year since graduation. Graduates were classified by setting of practice, hospital-based versus outpatient-based. Data provided by the MMSS subscale of satisfaction with scheduling found that graduates working in outpatient areas were more satisfied than hospital-based graduates. Graduates from outpatient areas also rated scheduling as more important than did hospital based graduates. Graduates were also classified according to area of practice. These areas included: medical-surgical (n = 15), medical-surgical specialty areas (cardiology, oncology) (n = 25), pediatrics (n = 16), obstetrics/gynecology (n = 7), and neonatal (n = 7) for comparison by clinical areas. Results from this comparison revealed that graduates practicing in the pediatric setting are more satisfied than those practicing in the medical surgical area when analyzing the variables of coworkers, interactions, praise and recognition, and control and responsibility. There were no differences in importance among those employed in the various clinical areas.

The remainder of this study focused on how likely or unlikely the graduates were to stay in their current position for one year and intention to leave. Research revealed that graduates satisfied in seven out of the eight dimensions measured by the MMSS were "likely" to stay in their current position and did not intend to leave. The study discovered that when grouped as very likely or very unlikely in their current positions, 19% of the nurses surveyed intended to leave their position in the first year (Roberts et al., 2004). New RNs who intended to leave their positions had consistent negative scores on all eight dimensions of the MMSS, reflecting low satisfaction with their current jobs.

In a third study of new nurse intention to stay in a job, Beecroft et al. (2007) designed a study to determine the relationship of new nurse turnover intent with individual characteristics, work environment variables and organizational factors. This study also compared new nurse turnover with actual turnover in an 18 month period of employment following a nurse residency program. The background of this study referenced previous literature regarding unfavorable clinical outcomes due to nursing shortages. It also emphasized the worldwide attention that has been placed on turnover and turnover intent, which are proposed to influence patient safety and health outcomes.

The model used for this study was adapted from previous work by Gerber, Hinshaw, Atwood, and Erickson (1986), Ingersoll, Olsan, Drew-Cates, Devinnery, and Davies (2002), Yin and Yang (2002), and Lu, While, and Barribal (2005) (Beecroft et al., 2007). The model was defined by three parts: individual characteristics, work environment, and organizational factors. Individual characteristics of the model included age, education level, prior work experience, nursing competency, coping strategies, and choice of work unit. Work environment was characterized by autonomy, decision-

making, empowerment, and job satisfaction. Organizational factors in the study were defined as leader empowerment, commitment, and group cohesion. All three parts of this model were proposed to correlate with new nurse turnover intent and actual turnover, which was further defined as voluntary termination of employment.

The sample for this study consisted of 889 new graduate nurses who were employed in a pediatric setting as part of a twenty-two week hospital nurse residency program (Beecroft et al., 2007). Demographics revealed that more than half of the nurses (56%) were 23-30 years of age and held a baccalaureate degree. All hospitals used were not-for-profit facilities with a similar bed size. Participants were surveyed upon completion of the residency program.

There were nine instruments used throughout the study. Data on individual characteristics were collected using the Skills Competency Self-Confidence Survey (Beecroft, Kunzman, Taylor, Devenis, & Guzek, 2004), the Slater Nursing Competencies Rating Scale: Self-Report (Wandelt & Stewart, 1975) and the Corwin Nursing Role Conception Scale (Corwin & Taves, 1962). When surveying the work environment, researchers used the Conditions for Work Effectiveness Questionnaire (CWEQ) (Chandler, 1992), Schutzenhofer Professional Nursing Autonomy Scale (PNA) (Schutzenhofer, 1988), and Clinical Decision-Making Scale (CDM) (Jenkins, 1985). Organizational factors were explored using the Leader Empowerment Behavior Scale (LEB) (Hui, 1994), Group Cohesion Scale (GC) (Good & Nelson, 1973), and the Organizational Commitment Questionairre (QC) (Mowday et al., 1979). All instruments except the Skills Competency Self-Confidence Survey are published with established reliability and validity. The collection of data for this study took place in a seven-year

time frame from 1999 to 2006. Data from this study were analyzed using a multivariate analysis technique (Beecroft et al., 2007).

When analyzing individual characteristics, work environment and organizational factors, authors concluded that scores may vary according to participants' perceptions of their experience of transition. Results of the study indicated that younger participants were more likely to indicate turnover intent ($p = 0.001$). Participants were also more likely to indicate turnover intent if they had a higher education ($p = 0.026$), or did not get first choice of nursing unit ($p= 0.012$), or were older and did not get their first choice of nursing unit ($p = 0.015$). Participants who indicated turnover intent rated themselves lower on self confidence ($p = 0.021$) and competencies ($p = 0.014$) when compare to those who did not indicate turnover intent. Findings also indicated that increased seeking of social support when transitioning from student to RN was related to turnover intent. This study concluded that when new graduates are satisfied with their jobs and pay and are committed to the organization, there is a decrease in turnover intention (Beecroft et al., 2007).

In a fourth study of nurses' intentions to leave their positions, Lavoie-Tremblay, O'Brien-Pallas, Gelinas, Desforges, and Marchionni (2008) investigated the relationship between dimensions of the psychosocial work environment and the intent to quit among a new generation of nurses. Two research questions were addressed in this study:

> 1. Do nurses who intend to quit their current nursing position have different perceptions of the psychosocial work environment from nurses who do not intend to stay? (p. 727).

2. Do nurses who intend to quit the nursing profession have different perceptions of the psychosocial work environment from those who do not intend to quit? (p. 727).

The framework used in this study focused on the psychosocial work environment, which was defined and based on the Karasek's Job Strain model (Theorell, Karasek & Eneroth, 1990) and Siegerist's Effort-Reward Imbalance model (Siegerest, 1996) (Lavoie-Tremblay et al., 2008). The dimensions of Karasek's Job Strain model were psychological demands (amount of work, complexity of work and time constraints) and decision latitude (the capacity to use one's qualifications and develop new job skills, and the opportunity to choose how to do one's work and influence related decisions). Social support was also included in this model under the expectation that it eased effects of job strain. The Siegrist's Effort-Reward Imbalance model implied that a work situation that was composed of a high level of effort exhausted and little reward received could have harmful effects on health.

The study was conducted in Quebec, Canada. The participants were acquired through a mailing list obtained from the provincial nursing licensing board (Lavoie-Tremblay et al., 2008). The sample consisted of 309 voluntary participants. Participation was limited to new, French-speaking nurses, currently working in the public health sector who had received their nursing education in Quebec.

In this study, four variables were measured using specific questionnaires for that variable. The variables included socio-demographics, psychosocial work environment, social support, and effort/reward balance. Socio-demographic data were obtained by asking participants to report age, gender, academic background, and primary residence.

The Job Content Questionaaire (Karasek, 1985) was used to measure social support and psychological work environment of the new nurses. Effort and reward balance were measured using an instrument designed by Siegrist (1996). Reliability of the instruments was not reported. The data in this quantitative study were analyzed using SPSS 14. Descriptive statistics were used to calculate all variables (Lavoie-Tremblay et al., 2008).

All surveyed participants were new registered nurses under the age of 24 years, mostly female (96.4%). The majority had worked in the same position since graduation and receiving licensure (81.6%). The results of the measured variables included that half of the respondents reported high psychological demand in their jobs. More than half of respondents reported an imbalance between efforts expended and rewards obtained. Also reported by more than half of respondents was the intention to quit their present job for another. Some participants were considering a profession other than nursing (Lavoie-Tremblay et al., 2008).

In addressing the first research question, data were compared on nurses who did not intend to leave their job (n = 116) with those who did intend to leave their job (n = 190). Those that intended to leave their jobs perceived an imbalance between efforts expended and rewards received, as well as lack of social support from colleagues and management ($p \leq 0.001$). The reasons stated most frequently for quitting were: (a) a lack of challenges, a need make a change and acquire new skills, (b) career opportunities, and (c) difficult working conditions (Lavoie-Tremblay et al., 2008).

The second research question compared data on nurses who did not intend to quit the nursing profession (n = 263) with those who intended to quit (n = 39). The nurses who planned to quit perceived an imbalance between effort expended and reward

received ($p \leq 0.01$), and high psychological demands and job strain ($p \leq 0.05$). The most frequent reasons reported for wanting to quit the profession were difficult working conditions and unstable employment (Lavoie-Tremblay et al., 2008).

The balance between levels of effort expended and rewards received play an important role in new nurses' intent to leave (Lavoie-Tremblay et al., 2008). In order to retain the generation of new nurses, administrators must provide supportive work environments and improve working conditions by assessing the rewards and value perceived by staff. Further research is needed on this topic in order to develop retention strategies that will enhance supportive environments of new graduate nurses and deter them from leaving their organization or changing professions.

New Nurses' Residency/Internship Programs

Altier and Krsek (2006) evaluated the effects of participation in a one-year residency program on job satisfaction and retention of graduate nurses. Would a one-year nurse residency program designed for new graduate nurses result in higher levels of satisfaction and retention? The theoretical framework used in this study was the novice to expert model of Benner (1982), based on the theory of skill acquisition by Dreyfus and Dreyfus (1980). Dreyfus and Dreyfus proposed that, for a student to acquire skills, they must pass through five levels of proficiency: novice, advanced beginner, competent, proficient, and expert. Benner incorporated this model into nursing practice.

This study was conducted in six academic medical centers across the United States. The population consisted of baccalaureate prepared new graduate nurses. The sample contained 316 voluntary participants. Criteria for the study included being a new

graduate nurse, baccalaureate prepared. The nurses were to be surveyed at hire and upon completion of a one-year residency program (Altier & Krsek, 2006).

The McCloskey-Mueller Satisfaction survey (MMSS) (McCloskey & Mueller, 1990) was used in the study to assess satisfaction among the new nurses being surveyed. The MMSS scale contained 31 items that included eight areas of satisfaction. The areas included intrinsic rewards, scheduling, balance, coworkers, interaction opportunities, professional opportunities, praise, and control. Each item was rated using a Likert-style, self reporting scale, with 1 = very dissatisfied and 5 = very satisfied. The test-retest reliability of the MMSS satisfaction survey showed good stability, reported at .79 (Altier & Krsek, 2006).

Demographics from the study revealed that of the new graduates surveyed 89% of the population was female with a mean age of 26.34 years. Most of the program participants were Caucasian (79%). Twenty-five percent of the graduates held previous non-nursing degrees and thirty-seven percent had achieved a GPA of 3.5-4.0 upon graduation (Altier & Krsek, 2006). The satisfaction scores were calculated as a sum. Low scores indicated low satisfaction, and high scores were associated with high levels of satisfaction. The compared job satisfaction follow up scores at one year revealed no statistical significance when associated with gender, GPA, or previous non-nursing degree. Other findings from the study suggested only slight statistical significance when measuring job satisfaction with co-workers, interaction opportunities, and professional opportunities. Important findings were generated when measuring success of the residency program and the retention rates of new graduates. The program retained 87% of its residents after the end of the one year program.

In another institution, Newhouse et al. (2007) tested whether the internship program titled "Social and Professional Reality Integration for Nurse Graduates" (SPRING) improved new graduate retention, new nurses' sense of belonging, nurse turnover, and new nurses' job commitment. There were two research questions addressed in this study as follow:

1. Is there a difference in organizational commitment, sense of belonging, and anticipated turnover for new nurse graduates who completed the (SPRING) internship program in comparison with graduates who did not complete the program? (p. 51-52).
2. Does participating in the internship program (SPRING) result in higher retention of new nurse graduates than those who do not participate in the internship program? (p. 51-52).

The theoretical framework used in this study was the Donabedian (1966) model. In applying this model, the study examined the concepts of new graduates (structure), socialization (processes), and job commitment and intent to leave (outcomes) (Newhouse et al., 2007).

The sample consisted of approximately 200 new graduate nurses that had been hired by an academic institution over a three-year period. Mentioned also in the study was a comparison group of new graduate nurses that did not participate in the SPRING program. This group was of an undisclosed number. Criteria for the study included being a newly hired graduate nurse who was participating in the (SPRING) internship program. Participation in the research was voluntary. The nurses were surveyed at hire (baseline) and also at six and twelve months post hire (Newhouse et al., 2007).

There were three methods of measurement used in this study. The first tool used in the study was the Organizational Commitment Questionnaire (OCG) (Mowday, Steers, & Porter, 1979). This tool measured how strongly an individual identified with or was involved in an organization. This questionnaire consisted of a 15-item, seven-point Likert scale that ranged from strongly agree to strongly disagree. The second tool used in the study was the Modified Hagerty-Patusky Sense of Belonging Instrument (Hagerty & Patusky, 1995). This tool measured value of involvement and experience of belonging. This survey consisted of 32 items with two domains: Psychological Experience (18) and Antecedents (14). This four-point scale ranged from strongly agrees to strongly disagree. The third tool used in the study was the Anticipated Turnover Scale (Hinshaw, Smeltzer & Atwood, 1987). This instrument was used to measure the new graduates' perceptions of the prospect of willingly terminating the new nursing job position. The tool consisted of a 12-item self-report survey that used a Likert scale with seven reply options ranging from agree strongly to disagree strongly. Reliability was reported as acceptable for all three instruments (Newhouse et al., 2007).

Results did not include demographic data for participants of this study. Results related to research question one revealed that anticipated turnover was higher for non-SPRING nurses than for SPRING nurses at the six month point. Six month non-SPRING nurses had lower antecedent sense of belonging than baseline SPRING or twelve month SPRING nurses. There were no significant differences between the groups for organizational commitment. Research question two revealed that one year retention is higher for SPRING new graduates than for non-SPRING new graduates ($p = .014$) (Newhouse et al., 2007).

The authors suggested that internship programs for new graduate nurses may provide support and socialization that can ease transition into the professional role. In addition, internships teach skills and knowledge for new nurses to become competent practitioners (Newhouse et al., 2007). Replications of this study are needed to lend additional support to internship programs.

Summary

The role transition of new nurse graduates into clinical practice can be stressful. The nature of the transition may result in job satisfaction or dissatisfaction, which in turn may predict whether or not new graduate nurses stay in their first professional position. When nurses leave their jobs, healthcare systems lose money and valuable human resources. Research suggests that preceptorships and internships may offer much needed support to new graduates in role transition. This chapter has reviewed selected studies on nurse preceptorships, residencies, and internships, in an effort to determine gaps in knowledge and directions for further research.

Studies in this review indicated that new graduate nurses lack comfort, confidence and competence in performance of new skills for the first year they are in a new position (Casey et al., 2004). Scott et al. (2008) reported at least 50% of new nurse were dissatisfied with their first professional position. Two studies specifically explored the outcomes of internship or nurse residency programs and found that they can reduce anticipated job turnover and increase nurses' sense of belonging in a new position (Newhouse et al., 2007; Altier & Krsek, 2006). Two studies noted that job turnover was significantly related to job satisfaction in new nurses (Scott et al., 2008; Winter-Collins & McDaniel, 2000). More studies that specifically measure a variety of outcomes of nurse

residency or internship programs are needed to assist organizations in knowing how to optimally support new nurses and allocate economic resources to minimize attrition from first professional positions.

Several studies in this literature review explored a variety of factors related to job turnover, besides orientation, residency, or internship programs. Factors related to job turnover included nurses' sense of belonging in the new position (Newhouse et al., 2007; Winter-Collins & McDaniel, 2000), staffing on the unit where they worked (Scott et al., 2008), nurses' confidence in work-related activities (Beecroft et al., 2007), organizational commitment (Beecroft et al.), balance between job effort and reward (Lavoie-Tremblay et al., 2008), job strain and psychological demands (Lavoie-Tremblay et al.), and social support from colleagues and managers (Lavoie-Tremblay et al.). New nurses who were younger, had more education and did not get the unit assignment they wanted were more likely to leave their positions (Beecroft et al.).

In this literature review, suggestions for improvement in new graduate role transition were cited. Nurses reported that role transition would have been improved by longer orientation, more experienced preceptors during orientation, the presence of mentors, and nurses who could nurture and teach (Thomka, 2001; Godinez et al., 1999; Beecroft et al., 2006).

Multiple conceptual and theoretical frameworks guided research in this literature review. Two studies were guided in part by Kramer's theory on reality shock (Winter-Collins & McDaniel, 2000; Godinez et al., 1999). Additional frameworks cited were Donabedian's (1966) model (Newhouse et al., 2007), and Benner's novice to expert model (1982) (Altier & Krsek, 2006). Conceptual frameworks used throughout the

literature included; role transition of new nurse graduates, satisfaction, nurse turnover, sense of belonging, and organizational commitment (Delaney, 2003; Thomka, 2001; Roberts et al.; Beecroft et al., 2007). Two of the studies developed models; one was titled "Model of the Process of Registered Nurse Role Transition" (Godinez et al.,) and another titled "Model for Investigation" (Beecroft et al., 2007). These models demonstrated the process of nurse transition and variables that may affect turnover.

Multiple instruments were selected to measure key variables in this literature review. Most often were the McCloskey-Mueller Satisfaction scale (McCloskey & Mueller, 1990), the Hagerty-Patusky Sense of Belonging instrument (Hagerty & Patusky, 1995), and the Organizational Commitment Questionnaire (Mowday, Steers, & Porter, 1979). Of the twelve studies reviewed, five of the research teams developed their own surveys. Reliability and validity were supported in seven studies.

Limited research had examined the outcomes of residency or internship programs for new nurse graduates. In an effort to add to what is know about the effective orientation of new nurses, this study proposed to examine whether an internship program improves new nurse graduate retention, sense of belonging, organizational commitment, and anticipated turnover and the effect of selected variables on outcomes of the internship program.

Chapter III

Methodology

New graduate nurse retention is gaining more attention as literature reveals the adverse affects of new nurse attrition to the economics and quality of care that health care systems can provide. Factors such as orientation, mentoring, and positive role socialization influence the intent of a new graduate's decision to leave their job or profession. This study is a partial replication and extension of the Newhouse et al. (2007) study. The purpose of this study is to examine whether an internship program improves new nurse graduate retention, sense of belonging, organizational commitment, and anticipated turnover. This chapter includes information about the population, sample, procedure, methodology, design and data analysis in this study.

Research Questions

The following questions guided this study:

1. Is there a difference in organizational commitment, sense of belonging, and anticipated turnover for new nurse graduates who completed the internship program in comparison with graduates who did not complete the program?

2. Is there a difference in retention rates of new nurses who do complete an internship program and new nurses who do not complete an internship program?

Population, Sample, and Setting

The target population for the study is new graduate nurses currently employed at one health care system in a Midwestern state. This organization includes five hospitals that hire approximately 100 new graduates each year. The anticipated sample will consist of 80 new nurse graduates who complete an internship program and a comparison group of 80 new graduates who will not participate in an internship program. The exact sample size required for statistical rigor will be determined by power analysis. Participation in the study will be voluntary. Criteria for inclusion consist of being a new graduate nurse participating in the internship program. There are no exclusion criteria based on gender, age or ethnicity. Demographic data collected will include age, sex, race, and education level.

Protection of Human Rights

The study will be presented to the appointed Institutional Review Board (IRB) at Ball State University for approval. During this process, a letter of intention will be sent to the participating hospitals' Vice President of Nursing seeking permission to conduct the internship and study within the institution. This letter will explain the purpose of the study, time frame, criteria for inclusion, and anticipated sample size and instrument. A meeting will be arranged with the Vice President of Nursing, nurse educators, and unit directors to further explain details of the internship and study to obtain final approval. Participants will sign an informed consent, which will describe the researcher's commitment to keep the responses confidential. No attempt will be made to find out who participated in the study. No one will see the data but the researcher. Participants will be instructed to not write their names on any study materials. The only possible risk to

participants is the risk of being identified by demographics reported. In a sample of 80 nurses in each group, it is possible but unlikely that an individual will be identified by the demographic data. The only demographic data collected will be the broad area of clinical practice and age range. The participants will be informed that they can omit demographic questions if they do not wish to disclose demographic information. Data collection will continue until the target sample size is reached.

In order to sample the same nurses over time, questionnaires will be numerically coded. The list of participants' names and code numbers will be kept in a locked file in the office of the researcher. Signed consents forms will be kept secured by the primary researcher in a locked file. The completed study instrumentation will be kept in a separate locked file. No one will have access to the list, signed consents and data but the researcher. Data will be destroyed at study completion.

Procedure

After approval from the IRB and support from the participating hospitals, the internship will be implemented. The comprehensive internship will last one year and provide an intense socialization and educational experience to support the new nurses in their professional development and transition into the nursing role. During the course of this year, participants will be provided education, participate in group exercises, be mentored by educators and preceptors, and compose personal development plans. In addition to standard unit orientation, the new nurse interns will attend ten education seminars during the internship process. It will be decided by the participating organization which units will not participate in the internship program to establish a comparison group.

Participants who complete the internship will be invited by mail to complete the study instrumentation. The interns will be surveyed during their classes at baseline, six months, and twelve months. Non-interns will receive survey packets by intra-institutional mail at baseline, six months and twelve months later. An informed consent will be included in the survey packet along with instructions and the researcher's e-mail and phone number for any questions. Participation is voluntary, and the nurses may withdraw from the study at any time. All data will be anonymous and confidential and will be seen only by the researcher and data entry personnel. Students will be instructed to not write their names on the survey.

Participants will place the completed instrumentation in a sealed envelop and place it in a data collection box located centrally within the hospital. Signed informed consents will be placed in a second envelop and deposited in the centrally located data collection box. Neither surveys, consents, nor envelops will be coded in any way.

Signed consent forms will be kept secured by the primary researcher in a locked file. The completed study instrumentation will be kept in a separate locked file. Data will be destroyed at study completion.

The only possible risk to participants is the risk of being identified by demographics reported. In a sample of 80 nurses in each group, it is possible but unlikely that an individual will be identified by the demographic data. The only demographic data collected will be the broad area of clinical practice and age range. No health-related information will be collected from nurse participants. The participants will be informed that they can omit demographic questions if they do not wish to disclose demographic information.

There are no benefits to the participants other than to contribute to professional knowledge needed to plan support for nurses' role transition. The importance of the study will be cited in the cover letter and informed consent and will include gaining knowledge about the effectiveness of internship programs. No one can provide this data except new nurses who are in role transition.

Administrative data will also be collected concurrently to describe the number of non-interns and intern new nurses who remained in the organization for 12 months, 18 months, and 24 months over the three-year time frame. Retention data will be collected by the exact same formula throughout the course of the study. All retention data will be aggregated before released to the researcher. The researcher will not see the names of who continued employment and who did not remain employed.

Instrumentation

Three instruments will be used in this study. The first instrument used will be the Organizational Commitment Questionnaire (OCG) (Mowday et al., 1979). This tool will be used to measure how strongly an individual identifies with or is involved in the organization. This questionnaire will consist of a 15-item, seven-point Likert scale that ranges from strongly agree to strongly disagree. The researcher will also use the Hagerty-Patusky Sense of Belonging Instrument (Hagerty & Patusky, 1995). This tool measures the value of involvement and experience of belonging. This questionnaire consists of 32 items with two domains: Psychological Experience (18 items) and Antecedents (14 items). This four-point scale ranges from strongly agree to strongly disagree. The third instrument used for this study will be the Anticipated Turnover Scale (Hinshaw et al., 1987). This instrument will be used to measure the new graduate's perception of the

prospect of willingly terminating the new nursing job position. The tool will consist of a 12-item self-report survey that uses a Likert scale with seven reply options ranging from agree strongly to disagree strongly.

Participants will be asked to provide demographic data. The participants will be informed that they can omit demographic questions if they do not wish to disclose demographic information. The only demographic data to be collected will be the area of clinical practice and age range.

Reliability and Validity

Reliability and validity have been examined on the Organizational Commitment Questionnaire (OCG) (Mowday et al., 1979), Hagerty-Patusky Sense of Belonging Instrument (Hagerty & Patusky, 1995), and Anticipated Turnover Scale (Hinshaw et al., 1987). In previous tests of the tools, internal consistency reliability was determined by calculating Chronbach's alpha. The OCG reports a Chronbach's alpha reliability of .53, which is low and requires further examination. The Hagerty-Patusky Sense of Belonging Instrument reports acceptable validity and a Chronbach's alpha reliability of .84 for the psychological experience and .66 for the antecedent portion of the tool. The Anticipated Turnover Scale reports acceptable reliability at .84, and the construct validity was estimated by principal factor analysis and predictive modeling techniques (Newhouse et al., 2007). Chronbach's alpha will be calculated on all three tools in this study.

Research Design

This study will use a quasi-experimental, longitudinal, control group design. This type of design allows the researcher to explain relationships, clarify why certain events happen, and examine causality between selected independent and dependent variables

(Burns & Groves, 2007). Data are collected three times, at baseline, six months, and twelve months. The internship serves as the intervention and is the independent variable. It is measured as a nominal level variable. Participants either took part in the internship or did not take part. Dependent variables are sense of belonging, organizational commitment, anticipated turnover and retention rates, all of which were measured at a level presumed to be interval in nature. Demographic data are measured nominally.

Methods of Data Analysis

Survey responses will be scanned and data will be entered into a computer using the Statistical Package for the Social Sciences (SPSS) program. For research question one, the results will be described using inferential statistics such as analysis of variance (ANOVA), and presented in a table within the study. This analysis will compare organizational commitment, anticipated turnover, and sense of belonging between groups of participants, within groups, and as a whole group. For research question two, analysis of data will describe the new graduate retention rate for 12, 18, and 24 months. For the results in this portion of the study, a post hoc test for ANOVA will be performed to determine if there are significant differences in retention rates between groups of new nurse interns versus new nurses not participating in the internship program.

Summary

The purpose of this study is to examine the effect of an internship program on sense of belonging, organizational commitment, and anticipated turnover among new nurse graduates and the effects of selected demographic variables on outcomes of the internship program. Results will provide information needed to develop comprehensive

programs that may improve the transition process of student to professional to increase nurse retention and decrease new nurses' intentions to leave within the first year of employment.

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Source	Problem	Purpose Research Questions	Framework or Concepts	Sample	Design	Instruments	Results
1. Newhouse et al. (2007)	The attrition rate of new nurses continues to rise. More research is needed on factors that influence turnover of new nurses. Of specific interest are the effects of internship programs on new graduates' organizational commitment and sense of belonging.	Explore whether an internship program (SPRING) improves new graduate retention, sense of belonging, turnover, and job commitment. 1) Is there a difference among new graduates who complete an internship vs. new graduates who do not complete an internship in relation to organizational commitment, sense of belonging and turnover? 2) Does?	Donabedian's model (1966). Examines relationships between structures, processes and outcomes of the healthcare provided to individuals. Concepts: Nurse Turnover Sense of Belonging Organizational commitment	Convenience sample of new nurses: Approximately 200 new graduates hired by an academic institution over a 3 year period in the SPRING program. Baseline: N = 37 6months: N = 237 12 months: N = 212 Undisclosed number of new nurses who did not participate in the SPRING program in a comparison group also included in the sample.	Quasi-experimental Control group Cross-Sectional	1. Organizational Commitment Questionnaire(OCQ) Reliability = 0.53 (Mowday, Steers, & Porter, 1979) 2. Modified Hagerty-Putusky Sense of Belonging Instrument divided into two domains. Psychological Experience Reliability = 0.84 Antecedent Reliability = 0.66 (Hagerty & Patusky, 1995) 3. Anticipated Turnover Scale Reliability = 0.84 (Hinshaw et al., 1987)	

Source	Problem	Purpose Research Questions	Framework or Concepts	Sample	Design	Instruments	Results
		participating in the internship (SPRING) result in higher retention of new nurse graduates than that of those who do not attend SPRING					to leave than 6 mos or 12 mos SPRING NURSES.
2. Casey et al. (2004)	Graduate nurses experience stress and challenges when transitioning from student to practicing professional. With the current nursing shortage, new graduates have become an important focus of hospital recruitment and administrators who are examining factors that affect turnover and retention.	Identify the stresses and challenges experienced by graduate nurses. What factors influence graduate nurse retention?	No theoretical Framework cited. Conceptual Framework: New Graduate Nurses Transition into Practice Perceived Stress Nurse Retention	Convenience sample of 270 new graduate nurses from 6 acute care facilities in the Denver metropolitan area.	Comparative/ Descriptive Data were collected at baseline, 3 months, 6 months, & 12 months following hire.	Casey-Fink (n.d.) graduate nurse experience survey Reliability = 0.78 Variables measured included: Demographics, Skills/Procedure Performance, Comfort/ Confidence Job Satisfaction Work Development/Difficulties in Role Transition	New graduate nurses at base line had feelings of inadequacy and deficits in skill and knowledge. Even after 1 year only 4% were comfortable performing all skills. Graduate nurses felt most comfortable and confident practicing in an acute care setting after 1 year. 0-3 mos chi

							square = 55.03 6-12 mos chi square = 53.68 >1 year chi square = 57.92 (Scheffe post hoc analysis indicated significance of p = .008) Participants from private hospitals experienced less job satisfaction as they became more experienced (p = .02), whereas, participants from an academic teaching hospital had higher job satisfaction as their experience progressed. (p = .008) Themes that emerged from qualitative data concerning difficulty in role transition were “confidence”, “peer and preceptor relationship”, “dependence and independence’,

							"work environment", "organization and priority setting", and "physician relations".
3. Thomka (2001)	Graduate nurses have a variety of experiences and interactions with RN colleagues when transitioning from student to professional. Understanding these experiences of transition may help nurse leaders improve new graduates' satisfaction, promote retention, and perceived quality of patient care.	Describe graduate nurses' perceptions, thoughts, emotions and experiences related to the transition process from student to professional nurse.	Theoretical Framework Not Cited Conceptual Framework: Role transition Interpersonal Staff Interactions	Convenience sample of 16 registered nurses with less than 15 years of experience at a large urban mental health facility in southeastern Wisconsin. Nurses were asked to recall their experience of transition.	Descriptive Design/Qualitative analysis	A questionnaire packet addressing nurses thoughts and emotions. The questionnaires asked participants open ended questions and participants responded with written narrative phrases. Thematic Analysis	Graduate nurses described a variety of experiences that included positive and negative thoughts and emotions. There was noted inconsistency in the way that new nurses were assisted during the orientation process. Themes that emerged from RNs on ideal transition included, "longer orientation period", "mentors", "someone who nurtured, taught/reinforced skills", and "experienced RNs"

Source	Problem	Purpose Research Questions	Framework or Concepts	Sample	Design	Instruments	Results
4. Winter-Collins & McDaniel (2000)	New graduates may experience stress and role conflict when transitioning from student to professional. The orientation process for new graduates may influence the nurses' sense of belonging and job satisfaction. More research is needed on the relationship between nurses' sense of belonging and job satisfaction.	Determine the relationship of new graduates sense of belonging in the work environment with job satisfaction 1) Is there a relationship between new nurses' sense of belonging and job satisfaction?	Kramer's (1974) Theory of Reality Shock Conceptual Framework: Sense of belonging Job satisfaction	Convenience sample of 250 new graduates selected from the Indiana Health Professions Bureau mailing list who took the state board exam from January 1996 to January 1997.	Descriptive-correlational	McCloskey-Mueller Satisfaction Scale (McCloskey & Mueller, 1990) Internal consistent co-efficiency (0.89 to 0.90) Likert scale to identify eight types of job satisfaction Hagerty-Patusky (1995) Sense of Belonging Instrument Validity (0.83) Reliability (0.86)	There were significant correlations with sense of belonging and interaction opportunities ($p = 0.000$, $r = 0.38$), praise ($p = 0.000$, $r = 0.35$), control ($p = 0.001$, $r = 0.35$), coworkers ($p = 0.001$, $r = 0.33$), and schedule ($p = 0.006$, $r = 0.28$) The strongest relationship documented was between sense of belonging and total satisfaction of new graduates ($p = 0.000$, $r = 0.40$).
5. Godinez et al. (1999)	New nurses have high rates of turnover during the first year of employment. High turnover rates affect new	Describe the initial steps in the role transition of graduate nurses to staff nurses.	Theoretical Framework not identified, but does mention Kramer's (1974) Theory of Reality Shock.	Convenience sample of 27 graduate nurses from an acute care hospital.	Descriptive design Qualitative data analysis	Daily Feedback Sheets (referred to as logs). Completed by the preceptor and the graduate nurse. Written data analyzed as themes.	Five themes: "Real nurse work", "guidance", "transitional processes", "institutional

	graduates personally and professionally, and the employer bears the cost of orientating a new employee. More research is needed on the process of role transition from education to service from new nurse to professional.		Conceptual Framework: Role transition of graduate nurses Perceived Stress				context" and "interpersonal dynamics". A model was developed from the themes to depict the relationships among transitional processes, interpersonal dynamics, and intuitional factors. This model was named "Model of the process of registered nurse role transition".

6. Delaney (2003)	Stressful and challenging transition period from graduate nurse role to professional nurse role, which can lead to new nurses leaving the profession. More research is needed on graduate nurses' transition into practice from a phenomenological perspective.	Explore and describe the experiences of graduate nurses during the transition from student to nurse.	Phenomenological theoretical approach Conceptual framework: Role transition of new graduate nurse Perceived Stress/Challenges	Convenience sample of10 female graduate nurses	Descriptive design Qualitative data analysis	Audio taped interviews conducted by the investigator. Transcribed and analyzed by themes.	10 themes emerged from the interviews of graduate nurses: "Mixed emotions", "preceptor variability", "welcome to the real world", "stressed and overwhelmed", "learning the system and culture shock", "not ready for death and dying", "dancing to their own rhythm", "stepping back to see the view, the power of nursing" and "ready to fly solo".
7. Scott et al. (2008)	New nurse attrition has adverse affects on the economics and quality of care that health care systems can provide.	Investigate the influence of anticipatory and organizational variables on the job and career satisfaction of new nurses,	Conceptual Framework Model (Scott et al., 2008) Anticipatory Socialization Organizational Socialization	Convenience sample of 329 new graduate nurses from the North Carolina Board of Nursing database. Participants were licensed	Descriptive design Univariate data analysis	Survey tool developed by researchers from the North Carolina Center for Nursing (NCCN) that consisted of seven questions measuring job satisfaction and career satisfaction. Reliability and validity were confirmed, but no	54.1% of new nurses were dissatisfied with their current job and 55% had already left their first job. The authors concluded that orientation plays a critical

		their intent to leave their position or profession, and actual turnover. More research is needed on the factors that affect job satisfaction of new nurses.	Job Satisfaction	not less than six months and no longer than two years.		numerical data provided.	role in nurse turnover. Nurses who reported job satisfaction (p = .001) were 2.4 more times likely to also report being completely satisfied with their orientation. Nurses who reported dissatisfaction had less orientation and were 5.8 times more likely to also report staff shortages (p = .052).
8. Beecroft et al. (2007)	New nurse turnover can contribute to nursing unit shortages. Inadequate nursing staff leads to poor clinical outcomes. More research is needed on the relationship between new nurses' intent on leaving their job and factors in the workplace and organization.	Investigate the relationship of new nurse turnover intent with individual characteristics, work environment variables and organizational factors.	Conceptual Framework Model (Model for Investigation) was developed by researchers in this study. This model was adapted from previous work of (Hinshaw et al., 1986), (Ingersoll et al., 2002), (Yin & Yang, 2002), (Lu et al., 2005), and (Tourangeau & Cranely, 2006)	889 new graduate nurses who were employed in a pediatric setting as a part of a 22 week hospital residency program at the Children's Hospital in Los Angeles, California	Descriptive design Multivariate analysis	Skills Competency Self-Confidence Survey (Beecroft, 2004) No established reliability or validity Corwin Nursing Role Conception Scale (Corwin & Taves, 1962) Reliability and validity established, no numerical data provided. Slater Nursing Competencies Rating Scale: Self-Report (Wendelt & Stewart, 1975) Internal consistent	Younger participants were more likely to indicate turnover intent (p = 0.001). Participants were also likely to indicate turnover is they had a higher education (p = 0.026), did not get their first choice of nursing unit (p = 0.012), and were older and did not get first choice of

						co-efficiency (0.98) Conditions for Work Effectiveness Questionnaire (Chandler, 1992) Reliability and validity established, no numerical data provided. Schutzenhofer Professional Nursing Autonomy Scale (Schutzenhofer, 1988) Internal consistent co-efficiency (0.86) Clinical Decision Making Scale (Jenkins, 1985) Internal consistent co-efficiency (0.82-0.84) Leader Empowerment Behaviors Scale (Hui, 1994) Internal consistent co-efficiency (0.95) Group Cohesion Scale (Good & Nelson, 1973) Reliability and validity established, no numerical data provided. Organizational Commitment Questionairre (Mowday, Steers, & Porter, 1979) Internal consistent co-efficiency (0.87-.88)	nursing unit (p = .014). Participants who indicated turnover intent also rated themselves lower on confidence (p = 0.021) and competencies (p = 0.014). When new graduates are satisfied with their jobs and are committed to the organization, there is a decrease in turnover intention.

9. Altier & Krsek (2006)	Current nursing shortages are forcing healthcare executives to assess residency programs that impact new nurse graduates job satisfaction in order to increase job stability, satisfaction, and retention.	Evaluate the effects of participation in a one year residency program on job satisfaction and retention.	Benner's novice to expert model (1982) based upon Dreyfus (1980) theory of skills acquisition	Convenience sample of 316 new graduate nurses from six academic medical centers across the United States	Descriptive-correlational	McCloskey-Mueller Satisfaction Scale (McCloskey & Mueller, 1990) Reliability = 0.79 Likert scale to identify eight types of job satisfaction	Eight elements of satisfaction were measured. Two of the eight elements show a statistical significant decrease, satisfaction with praise ($p = .001$) and satisfaction with professional opportunities ($p = .007$). Other elements demonstrated minimal change. Participating in a nurse residency program in the first year of nursing practice increased the retention rate of new graduates. The program retained 87% of its residents after the end of the one year program.

10. Beecroft et al., (2006)	New graduates experience stress as they enter the workplace and social culture of an organization. Mentoring new nurses eases the transition into a new employment situation potentially reducing stress, enhancing confidence and increasing retention. Research that evaluates the outcomes of mentoring programs is needed.	Evaluate a mentoring program for new graduate nurses over a six year time frame. Is mentoring successful in providing new graduates with guidance and support and optimal socialization in to the nursing profession?	Theoretical framework not cited Conceptual framework: Role transition of new graduate nurse Mentoring Socialization of new nurses	Convenience sample of 318 new graduate nurses who were part of a residency program at the Children's Hospital in Los Angeles, California	Descriptive design Quantitative analysis	The program evaluation was developed by a design team of nurses involved in the RN residency and mentoring training. This survey was designed according to the educational decision model by (Borich and Jemelka, 1982), (Guba & Lincoln, 1981) and (Patton, 1982). No reliability or validity information available	New nurses (58%) who participated in mentoring programs were satisfied with mentorship showing evidence of satisfaction by writing in positive comments on survey items related to their mentoring experience. The authors' concluded that successful mentoring programs that provided adequate support and guidance aided the transition from student to professional.

11.Roberts et al., (2004)	The current nursing shortage is forcing healthcare executives to examine strategies to retain new nurses. In order to develop better retention strategies, administrators must understand what new nurses find satisfying about their jobs.	Examine job satisfaction of recent RN graduates working in various specialty areas and their intent to stay in their current position.	Theoretical framework not available Conceptual framework: Satisfaction Intent to Stay	Convenience sample of 275 new graduates from a baccalaureate program of a university in the southeastern United States	Descriptive design Quantitative analysis	McCloskey-Mueller Satisfaction Scale (McCloskey & Meuller, 1990) Reliability (0.48-0.84)	Graduates who worked in outpatient areas were more satisfied than those in the hospital setting. In the hospital setting, those who practiced in pediatrics generated a higher satisfaction than those in other clinical areas of practice. There were 19% of nurses surveyed who intended to leave their position in the first year. Graduates who were satisfied were "likely" to stay in their current position and did not intend to leave. All significant findings were at the $p < .05$ level.

12. Lavoie-Tremblay et al., (2008)	In attempt to combat the current nursing shortage, researchers continue to examine factors that influence new nurse turnover. More research is needed on identifying factors that may improve the work environment of new graduates making them feel valued and supported.	Investigate the relationship between dimensions of the psychosocial work environment and the intent to quit among a new generation of nurses. 1. Do nurses who intend to quit their current nursing position have different perceptions of the psychosocial work environment from nurses who do not intend to stay? 2. Do nurses who intend to quit the nursing profession have different perceptions of the psychosocial work	Karasek's Job Strain Model (Theorell, Karasek & Eneroth 1990) Siegerist's Effort-Reward Imbalance Model (Siegerst, 1990)	Convenience sample of 309 new nurses participants acquired from the provincial nursing licensing board in Quebec, Canada	Descriptive-correlational	Job Content Questionaaire (Karasek, 1985) Internal consistent co-efficiency (0.68-.85) Effort/reward imbalance (Niedhammer & Siegerst, 1998) No reliability or validity available.	Nurses that intended to leave their jobs perceived an imbalance between efforts expended and rewards received as well as lack of social support from colleagues and management ($p \leq 0.01$). Nurses who planned to quit the nursing profession perceived an imbalance between effort expended and rewards received ($p \leq 0.01$), high psychological demands and job strain ($p \leq 0.05$).

		environment from those who do not intend to quit?					