

Outcomes of Mentoring Interventions for New Graduate Nurses

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THESIS

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DEDICATION

This thesis is dedicated to my mother Betty who lost her battle with breast cancer in 2010. Her unwavering sense of caring, courage and strength continue to serve as an inspiration to me each and every day.

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GRT

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LIST OF ABBREVIATIONS

ANCC	American Nurses' Credentialing Center
ANPD	Association of Nursing Professional Development
CINAHL	Cumulative Index of Nursing and Allied Health Literature
CWEQ	Conditions of Work Effectiveness Questionnaire
GAHC	General Acute Care Hospital
GRT	Gina Reid Tinio
NPD	Nursing Professional Development
PEDS	Pediatric Hospital

SUMMARY

The future of the nursing workforce is challenged. The prospect of the continued nursing shortage coupled with high turnover of new graduate nurses within their first year of work leave nurse leaders great cause for concern. New graduates report lack of support as a key antecedent of turnover within their first year of employment. Unfortunately, new graduate programs across the country are not standardized and may or may not include strategies to enhance a supportive transition to the workforce. The theory of job embeddedness introduced by Mitchell and his colleagues in 2001 states that employees choose to remain at an organization partly because they feel connected to a social web. Mentoring is one way to enhance that connection. The current state of the nursing literature sorely lacks empirical evidence which can demonstrate the true value of a mentoring intervention. In addition, there is limited research that substantiates which type of mentoring intervention may be the most effective in promoting job embeddedness. This paper presents the findings from an exploratory comparative cross sectional design study using a secondary data analysis to compare new graduate nurses' perceptions of job embeddedness by assessing for any similarities and differences in the perceptions of new graduate nurses who were mentored one-on-one versus those that were mentored in a group. The first chapter serves as an overview to the study. Chapters two and three contain articles written using practice journal guidelines which highlight the findings of the study. The overall findings indicate that group mentoring may prove to be a valuable intervention to promote positive perceptions of job embeddedness in new graduate nurses, resulting in decreased turnover intent within their first year of work.

I. THESIS ARTICLE INTRODUCTION

A. Purpose and Aims

The purpose of my dissertation research was to assess the effect of two different mentoring interventions (one on one mentoring and group mentoring) on new graduate nurse turnover, utilizing the theory of job embeddedness as the framework for analysis. This introduction provides a detailed overview of my study as well as the rationale for the selection of topics for my two dissertation articles.

Current demographics for the nursing profession reveal that the United States is experiencing a nursing shortage which is expected to continue for some time. According to Buerhaus, Auerbech and Staiger (2009), the shortage of registered nurses in acute care hospitals is expected to be 260,000 by 2025. About 90% of newly licensed nurses start their careers in hospitals (Brewer, Kovner, Yingrengreung & Djukic, 2012). Among new graduates, job turnover is high, between 27% and 53% of new graduate nurses change jobs within their first year of work (Price Waterhouse Coopers, 2007). The departure of one new graduate within their first year can cost a hospital between \$82,006 and \$88,032 per nurse (Park and Jones, 2010). Aside from the organizational financial risk, Holtom, Mitchell & Lee (2006) believe that when a valued person leaves an organization, the social network is disrupted and presumably some of the social capital leaves as well. For this, there is no price tag. Retaining new nurses is one strategy to address the current and future shortage.

It has been acknowledged for many years that new graduate nurses need support and guidance (Alderman, 1999). Yet, the support offered to new graduate nurses appears to be

inconsistent, ranging from well-structured formal orientation curriculum to nothing at all. Pearson and Floyd (2003), report that new graduates cite a “non-supportive environment” as a common problem for them during their initial role transition from student to professional. Research into the experiences of new graduates during their first year of employment has highlighted specific problems within professional socialization such as horizontal violence (Greenwood, 2000; Wheeler et al., 2000, Duscher, 2001). According to Cowin & Hengstberger-Sims (2006), many new graduates refer to interpersonal conflict in the workplace as a leading cause of new graduate attrition. The issues related to this interpersonal conflict in the nursing profession can lead to a host of problems including a significant decrease in nursing self-confidence which has been correlated with reduced retention rates (Starchota et. al, 2003).

White (1996) outlines a theoretical framework that was created from a classic repertory grid analysis of new graduate nurses in relationship to the feelings they experience in clinical practice. “The wish is for more support. This does not appear to be more than a person with whom they can talk about the day and the difficulties they have faced” (p. 10). Feeling connected to a social network within the organization is key to a new graduate’s success. Mentoring programs are one way to foster this sense of connection for the new graduate nurse. Mentoring interventions include providing support and information thus guiding the protégé (in this case, the new graduate nurse) in the development of a support system which helps them feel connected.

There is a wide body of literature on what is referred to as job embeddedness theory. This theory tells us that individuals remain at an organization partly because they feel

“connected”. This work supports the critical value of mentoring interventions which often serve to facilitate a connection for the protégé during their transition to practice. There is a limited amount of literature demonstrating the important connection between mentoring, job embeddedness and new graduate retention. To date, only one recently published study was located (Halfer, 2011) that referenced job embeddedness theory in the context of new graduate nurse retention. This dissertation study hypothesized that a positive mentoring relationship enhances a new graduate’s links and fit to an organization (two key facets within the job embeddedness framework) thus ultimately increasing the likelihood that they will stay at the organization.

Prior to embarking on the actual data analysis, it was necessary to complete a concept analysis of the concept of mentoring within the context of employee retention. The method employed in this concept analysis was guided by the framework offered by Beth L. Rodgers, RN, PhD. Rodgers offers a modification of the method popularized by Walker and Avant (1995). Rodgers (1989) defines a concept as “an abstraction that is expressed in some form” (p.332). She believes that “concepts are formed by the identification of characteristics common to a class of objects or phenomena and the abstraction and clustering of these characteristics, along with some means of expression, most often a word (Rodgers and Knafl, 1993, p. 78). Rodgers (1989) suggests that Walker and Avant’s method limits the analysis from focusing on the “vast relationships that exist in the world. Similarly, it presents a static view of the world to the extent that concepts not only do not change throughout time but also remain constant across contexts” (p. 331).

As the review of literature was conducted it became apparent that the concept of mentoring did change across contexts. The literature review included a review of nursing, psychological, educational, and human resource literature. The primary method of collection included computer data base searches using the Cumulative Index of Nursing and Allied Health Literature (CINAHL) via OVID and PsycINFO via ProQuest. Both searches limited articles between 1987 and 2011, simply based on the available index. Using CINAHL, the term “mentoring” generated 2,740 results. These results were then combined with the search term “employee retention” which narrowed the results to only two journal articles. The term “mentoring” was then combined with “retention” which provided a workable 220 results. These results were narrowed to academic journals and full text which brought the sample to 84. The “subjects” listing for each of these 84 results were then reviewed for fit to context of interest. Works that included students as subjects as well as results that appeared to be exclusively literature reviews were eliminated from the sample. This resulted in a final selected sample of 24 articles. Sixteen of these 24 articles referenced new graduate nurses as the subjects (Berezuik, 2010; Butler & Felts, 2006; Cottingham et al., 2011; Dingman, 2002; Faron & Poelter, 2007; Halfer et. al., 2008; Hayes & Sexton, 2007; North et. al., 2006; Persaud, 2008; Verdejo, 2002; Kuhl, 2005; Home, 2003; Meyer Bratt, 2009; Greene & Puetzer, 2002; Pinkerton, 2003; McCloughen & O’ Brien, 2005), seven referenced other nurses which included those moving laterally into a new specialty (Gordon & Melrose, 2011; McDonald et. al., 2010; Stewart, D., 2006; Foley, 2011; Craft Morgan & Lynn, 2008; Mills et. al., 2012; Hurst & Koplin-Baucum, 2005), and only one article referenced another discipline which was physical therapy (Stewart & Carpenter, 2009).

The same terms were utilized to perform the PsycINFO search. “Mentoring” combined with “employee retention” yielded a total of 40 results. These results were further limited to scholarly journals (excluding books and dissertations) which automatically limited the publication dates to 2003 to 2011. This left an available total of 21 results. Of the 21 results, three were duplicates of those selected in the CINAHL search, three were exclusively literature reviews, and three did not demonstrate a fit to the context of interest. This left a final PsycINFO sample of 12 articles. Five of the twelve articles referenced new faculty as the subjects (Baker, 2010; Garbee & Killackey, 2008; Hahs-Vaughn & Schreff, 2008; Ries et. al., 2009; Smith & Ingersoll, 2004) and the other seven represented other groups of employees including hospital employees and manufacturing companies (Apker et. al., 2009; Dawley et. al., 2010; Harris et. al., 2007; Holcomb & Bradley, 2003; Kraimer et. al., 2010; Strand & Bosco-Riggiero, 2010). A word table was created to code the findings from the total sample of 36 articles during the analysis. Column headings included “Definitions”, “Antecedents”, “Consequences”, “Referents”, “Surrogate Terms” and “Related Concepts”.

The findings within the review of the literature contributed to the selection of Rodger’s evolutionary approach to concept analysis. The following method of analysis was used:

- Identify the concept of interest
- Identify surrogate terms and relevant uses of the concept
- Identify and select a setting and sample for data collection
- Identify the attributes of the concept
- Identify the references, antecedents and consequences of the concept

- Identify concepts that are related to the concept of interest
- Analyze the data in relation to the above characteristics of the concept
- Identify a model case of the concept
- Identify implications for future development of the concept (Rodgers and Knafl, 1993).

Next, through the use of a secondary data analysis, this exploratory comparative cross sectional design study compared the new graduate's perceptions of job embeddedness, using two proxy measures of job embeddedness (Group Cohesion Scale and Conditions of Work Effectiveness Questionnaire (CWEQ II)), by assessing for any similarities and differences in the scores of new graduate nurses who received one on one mentoring versus those that were mentored in a group. In addition, the relationship between mentoring, job embeddedness and new graduate nurse turnover intent were explored. The second article entitled *Outcomes of Mentoring Interventions for New Graduate Nurses* highlights the findings of the study.

The specific aims of this dissertation study were to:

Aim 1: Compare the new graduate nurses' perceptions of connection to their unit assignment colleague group by assessing for any similarities and differences in the Group Cohesion Scores of nurses who received one on one mentoring versus those that were mentored in a group

Aim 2: Compare the new graduate nurses' perceptions of four work empowerment structures (access to opportunity, support, information and resources) by assessing for any similarities and differences in the CWEQ scores of nurses who received one on one mentoring versus those that were mentored in a group

Aim 3: Determine if there is a relationship between new graduate nurses' perceptions of job embeddedness (as measured via proxy measures) and new graduate nurses' turnover intent

Aim 4: Determine if there is a relationship between the mentoring intervention and the new graduate nurses' turnover intent

B. Background and Significance

1. Conceptual Framework -Job Embeddedness

Job embeddedness has been defined as “the combined forces that keep a person from leaving his or her job”. Originally presented by Mitchell, Holtom, Lee, Sablinsky and Erez in 2001, the concept was introduced to help explain the reasons that individuals stay at an organization. The theory behind the concept of job embeddedness centers on a basic premise- individuals remain at an organization partly because they feel connected to a social web. The evolution of the concept stemmed from an earlier non-traditional approach to studying turnover by Lee and Mitchell in 1994. The authors concluded that the concept of job embeddedness has two components, *on-the-job embeddedness* referring to how connected a person is to the organization in which he or she works and *off-the-job embeddedness* which refers to how entrenched a person is in his or her community. Within each of these two components exist three key facets- links, fit and sacrifice. This dissertation study was limited to a focus on links and fit within the *on-the-job embeddedness* component.

Links refers to the extent to which individuals feel linked to other activities and people (Psychlopedia, 2011). Links can include facts such as the number of colleagues with whom the employee interacts, the number of teams or committees they participate on, the amount of support and recognition they receive from their peers, and the number of years in their position. The theory of embeddedness suggests that a number of strands connect an employee to a social, psychological, and financial web in which he/she works and lives.

According to Mitchell et al. (2001), the higher the number of links between the person and the web, the more the employee is bound to the job and the organization. These so –called links are critical points in the discussion of new graduate nurse retention.

The second facet is referred to as *fit*. *Fit* refers to the employee’s relationship between their job and other facets of their life. Does the position utilize their skills and talents? Does the job support their values, culture and preferences? Does their work schedule support a work-life balance? Of particular interest in relationship to this study is the fact that socialization opportunities for newcomers also play a factor in *fit*. Socialization interventions which provide new employees the opportunities to meet and get to know other employees, especially their immediate team members, impacts their perceived organizational *fit* which in turn affects turnover (Cable and Judge, 1996). Theoretically, the better the fit, the more likely the employee will feel professionally and personally committed to the organization (Mitchell et al., 2001).

In regards to the assessment of organizational fit and links, the original items presented by Mitchell et al. are presented in Table I.

Table I
ORIGINAL JOB EMBEDDEDNESS LINKS AND FIT ITEMS

FIT: Organization	LINKS: Organization
<ul style="list-style-type: none"> • I like the members of my work group • My co-workers are similar to me • My job utilizes my talents well • I feel like I am a good match for this company • I fit with the company’s culture • I like the authority and responsibility I have at this company • My values are compatible with the 	<ul style="list-style-type: none"> • How long have you been at your present position? • How long have you worked for this company? • How many co-workers do you interact with regularly? • How many co-workers are highly dependent on you? • How many teams are you on?

TABLE I (cont'd)

organizations values (hospital only) • I can reach my professional goals working for this organization (hospital only) • I feel good about my professional growth and development (hospital only)	• How many work committees are you on?
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Some of the items were scored using a Likert-type format; others were “yes” or “no”. Scores for the items were averaged into an overall composite score for job embeddedness. The higher the score, the more embedded the individual. It is important to note the similarity in content to the proxy measures that will be utilized to assess job embeddedness as part of this dissertation study.

Two significant gaps in this body of literature were identified. The first is associated with the measure used to assess perceptions of job embeddedness. The original hallmark 42-item measure of job embeddedness introduced by Mitchell and his colleagues in 2001 was not consistently used by those that followed. However, despite the multiple variations of the measures of job embeddedness, the findings regarding the consequences are all quite similar. Job embeddedness is negatively related to intention to leave and subsequent turnover (Crossley et. al., 2007; Tanova& Holtom, 2008). Secondly, none of the studies reviewed examined the direct relationship between a mentoring model and job embeddedness.

2. Mentoring and New Graduate Retention

Mentorship has been defined as “an intense interpersonal exchange between a senior experienced colleague (mentor) and a less experienced junior colleague (protégé) in which the

mentor provides support, feedback, and direction regarding career plans and personal development” (Russell & Adams, 1997). Mentors provide two primary categories of functions: career and psychological support. Career related support includes coaching, supplying protection, providing challenging assignments, increasing employee’s exposure and visibility (Dreher & Ash, 1990). According to Jacob (1991), mentorship regardless of the mentoring models, consists of three actions: emotional support, career assistance and role modeling. Mentoring can occur through a variety of models, which include individual one on one relationships or group mentoring. An extensive review of the nursing literature revealed a number of gaps in describing the relationship between mentoring and new graduate nurse retention. Thus the topic for my second article- *Mentoring in the Context of New Graduate Nurse Retention: A Critical But Understudied Concept*.

Approximately half of the journal articles reviewed simply served to describe the contents of the new graduate mentoring model, the rationale for implementing the program, and the anecdotal outcomes of the mentoring interventions (Smith, M., 2007; Klein, G., 2009; Bilinski, H., 2002; Persaud, D., 2008; Bally, J., 2007; Paschke, S., 2007; Latham, C., Hogan, M., & Ringl, K., 2008; Butler, M. & Felts, J., 2006; Funderburk, A., 2008; Kanaskie, M., 2006). Overwhelmingly, challenges with individual facility nursing turnover and/or nursing recruitment were cited as motivation to implement formal mentoring models. A number of the studies, although not well grounded in research methods, did illustrate an inferred relationship between retention or turnover and the mentoring intervention by reported decreases in turnover rates (Faron, S. & Poelter, D., 2007; Hurst, S., & Koplin-Baucum, S., 2005) or increases in retention rates (Mills, J., & Mullins, A., 2008; Halfer, D., 2007; Hayes, J., & Sexton Scott, A., 2007; Meyer Bratt, 2009).

Only one study reported turnover intent data (Scott, E., & Smith, S., 2008). In this particular study the mentoring model began as one on one and then was altered to quarterly group mentoring due to the inability of the organization to sustain the one on one model. Mentoring interventions ranged from 5 weeks to 18 months and the majority of those mentoring models were one on one. Very few the studies utilized a theoretical framework to guide their analysis. None compared the outcome of one on one versus group mentoring models.

C. Research Strategy

1. Study Design

A secondary data analysis of the primary study was conducted to accomplish the four aims of the dissertation study. An exploratory comparative cross-sectional design was chosen for this study as it allowed for exploration of the differences in variables in two or more groups that occur in a particular setting.

2. Setting

Primary data collection began by Versant in May of 2004 and continues today through Versant, LLC. Versant's mission is to fundamentally improve the quality of patient care through developing and sustaining professional nursing organizations, One Nurse at a Time®. The Versant RN Residency is evidence-based. Metrics are collected to assist organizations in improving their individual RN residencies and for Versant to improve the RN Residency as a whole. Outcomes of the RN Residency are analyzed using a wide variety of metrics including, but not limited to, turnover at 12, 24, 36, 48, and 60 months; organization return on investment (ROI); and reliable and validated instruments. These instruments measure such metrics as nurse

satisfaction, work satisfaction, organizational commitment, leader empowering behavior, nurse autonomy, turnover intent, group cohesion, and self-confidence; competency assessment through individual competency observation and random in depth assessment using the Nursing Competencies Observation Scale; and individual, component, and RN Residency evaluations. The primary study was approved through the Institutional Review Board at Children's Hospital, Los Angeles, through the University of Southern California's Health Science campus. A number of Versant's beta sites also obtained IRB approval through their institutional processes. Participation in the study is voluntary and informed consent is obtained from each new graduate enrolled in the Versant RN Residency program. Approval for the secondary data analysis was obtained from UIC IRB.

3. Sample

To date Versant has enrolled more than 11,000 program graduates from 80 plus hospitals across the country. Approximately 7,100 program graduates are from General Acute Care Hospitals (GACH) and 4,000 from Pediatric facilities (PEDS). For the purposes of this secondary data analysis a convenience sample of 2032 program graduates were chosen. The inclusion criteria for this study were:

- All new graduates who completed the 18 week residency program between 2007 and 2010 and received either one on one or group mentoring interventions
- All new graduates between 2007 and 2010 who completed the Demographic Fact Sheet at Week 2 and the Group Cohesion Scale and CWEQ (actual perceived rating) during the last week of residency
- All new graduates between 2007 and 2010 for whom turnover intent data at 12 months was available

Participants will be excluded if:

- They did not complete the 18 week residency program between 2007 and 2010
- They did not complete the Demographic fact Sheet at Week 2 and the Group Cohesion Scale and CWEQ (actual perceived rating) during the last week of residency
- Turnover intent data was not available

4. Measures

a. Demographics

Participant demographics were collected via self-report during week 2 of the Versant RN Residency utilizing the Demographic Fact Sheet found in Appendix A.

b. CWEQ

The original CWEQ is a 31-item questionnaire designed to measure four dimensions of work empowerment based on Kanter's theory (Kanter, 1977). These four dimensions include perceived access to opportunity, support, information and resources. According to Kanter, access to each of these structures is facilitated by formal power and informal power. Formal power includes characteristics such as flexibility, adaptability, visibility, and relatedness to the organizations' purpose and goals. Informal power characteristics are developed as a result of social connections and include the communication channels that are developed with peers, mentors, subordinates and other interdisciplinary teams. Kantar believes that employees who perceive high levels of each of these dimensions have stronger organizational commitment, increased feelings of autonomy and self-efficacy thus they are more productive and effective in meeting organizational goals (Laschinger, Finegan, & Shamian, 2001).

In 1986, G.E. Chandler adapted Kanter's CWEQ for use in the nursing population for her dissertation. Chandler's work remains unpublished. In 1996, Dr. Heather Spence Laschinger published the first of many of her works using Chandler's adapted CWEQ measure. Then, following a number of studies, Dr. Laschinger modified the original 31-item CWEQ to a 19-item measure which has been studied and used frequently in nursing research since 2000 and is known as the CWEQ II. The CWEQ II's 19-items include a measure of six subscales. There are three items for each of the four dimensions of work empowerment (opportunity, support, information and resources), three items to measure formal power and four items to measure informal power. The measure is administered by paper and pencil and takes about 10 to 15 minutes to complete. It is scored using a 5-point Likert scale with descriptors ranging from "none" to "a lot" for 5 of the six subscales and then from "no knowledge" to "some knowledge" for the *information* subscale. This is an interval level of measurement as the measure contains more than ten items. Laschinger also added an additional 2-item global empowerment scale for construct validation purposes.

There is a two-step process to obtain the overall empowerment score on the CWEQ II. First, each of the scores from the items in the six subscales are summed and then averaged to provide a total score for each subscale which ranges from 1 to 5. The six subscale total scores are then summed and averaged to create a total empowerment score which may range from 6 to 30. The higher the score, the higher individual perceptions of empowerment. The following ranges represent scale interpretations:

6-13	Low levels of empowerment
14-22	Moderate levels of empowerment

23-30 High levels of empowerment

A literature review was conducted to assess the reliability and validity of the CWEQ II. Using the Cumulative Index of Nursing and Allied Health Literature (CINAHL) database, the search term “CWEQ-II” was entered and searched as text. This search yielded 135 articles. To narrow the search, the search term “nurse retention” was entered and combined with the search term “CWEQ II” which only yielded 5 articles. Thus, a decision was made to return to the original 135 results and randomly select articles which represented the use of the CWEQ II to assess nurses in a variety of settings, including new graduates. A random sample of 12 articles was selected based on their availability as a full text option.

Upon the initial review of the 12 articles selected, reference to Dr. Lachinger’s work with the CWEQ II was cited throughout the selections. A personal conversation with Dr. Beth Ulrich (personal communication, November 3, 2010), lead researcher from Versant, directed me to Dr. Lachinger's home page which provided additional resources. These resources included a description of the CWEQ and the CWEQ II, measurement and scoring guidelines for each tool, descriptive statistics as well as reliability statistics for numerous studies which have utilized the measures, and a request form to obtain permission to utilize the measure (<http://publish.uwo.ca/~hkl/instrumentCWEQ.html>). Permission for a copy of the tool was requested on November 5, 2010 and granted by Dr. Laschinger on November 22, 2010.

Only one of the twelve articles mentioned content validity. Zurmehly, Martin & Fitzpatrick (2009) utilized a panel of experts to review their survey for “content, readability and usability”. They also pilot tested their instrument with nurses from three different practice

settings. Although this survey contained items in addition to the CWEQ II, the review of these items was included in their establishment of content validity. Although it is recognized that one cannot truly establish construct validity after one study, eleven of the twelve articles reported support for their findings as related to consistency with findings in other similar studies with different nursing populations (DeSisto and DeSisto, 2004, Casey et al., 2010, Stuart et al., 2010, Spence Laschinger, Wilk et al., 2009, and Spence Laschinger, Letier et al., 2009) and/or support for the theoretical expectations of Kanter's framework (Spence Laschinger, Finegan et al., 2001, Luitzi et al., 2009, Tigert and Laschinger, 2004, DeCicco et al., 2006, and Patrick and Laschinger, 2006).

In addition, Laschinger reports that the "construct validity of the CWEQ II was substantiated in a confirmatory factor analysis that revealed a good fit of the hypothesized factor structure" (<http://publish.uwo.ca/~hkl/instrumentCWEQ.html>). Furthermore, she concludes that the two additional global empowerment items added to the CWEQ but excluded from the calculation of the total empowerment score from the CWEQ II, serve as a correlation for the measure which provides further evidence of construct validity.

In terms of reliability, eleven of the twelve studies reported Cronbach's alpha for the total CWEQ II within their study. Seven of the twelve reported alphas for the subscales of the CWEQ II as well. Overall, Cronbach's alpha for the CWEQ II in all twelve of the studies ranged from 0.70 to 0.93 indicating a high degree of internal consistency. Of the seven studies that reported Cronbach's for the subscales, only one alpha was below 0.70 (0.65 for the "resources" subscale with the nurse practice group in Stewart et al (2008).

Versant utilizes a modified CWEQ. The history of the modification was not accessible. The modified CWEQ consisted of 30 items divided into four subscales: opportunity, information, coaching and support, and job activities. Critical to note are two modifications. First, subjects are asked to score each of the items based on what they currently have as well as how much they would like to have. Secondly, on the Coaching and Support subscale, subjects are asked to evaluate the items based on how much their supervisor provides. As with the original CWEQ, items from the four subscales are summed to provide an overall work empowerment score whereby higher scores represent stronger perceptions of an empowering work environment. For the purposes of this study only the “have now” items were used. The measure can be found in Appendix B.

c. Group Cohesion Scale

The Group Cohesion Scale is a unidimensional, 6-item instrument which utilizes a 7-point Likert response scale to evaluate employee perceptions of their colleague group. The measure consists of two subscales- Attractiveness and Cohesion and can be found in Appendix C. The Attractiveness subscale consists of four items assessing productivity, efficiency, morale, and belongingness. These items are scored using the 7- point Likert with scores ranging from “very much below average” to “very much above average”. The Cohesion subscale consists of two items measuring personal feelings and working together. The scores on this 7-point Likert range from “dislike it” to “like it very much”. Scores from each of the six items are summed for a total group cohesion score. The total possible score for group cohesion is 42. Higher scores indicate higher levels of group cohesion.

The same process that was utilized to review the reliability and validity of the CWEQ II was used to evaluate the Group Cohesion Scale. Similar to the results of the CWEQ II analysis, only one of the seven articles reported content validity. Leveck and Jones (1996) reported that content validity was addressed by examining item referents from study instruments using a suggested target cited by Verran, Gerber, and Milton (1995). Verran et al. suggest that 90% of the items contained in the measure should reflect the focal level of analysis. In the case of the Group Cohesion Scale, all items referred to the colleague or work group as well as the individual thus the author notes content validity was established. Again, impossible to establish construct validity after one study, construct validity was inferred in all seven studies through referencing the findings being similar to those reported in other studies as well as to the classic work assessing the concept of group cohesion by Good and Nelson (1973) and Price and Mueller (1986).

As far as reliability, only five of the seven studies reported Cronbach's alpha. Overall, Cronbach's alpha ranged from 0.82 to 0.87, notably above the suggested minimum score of 0.70, thus indicating a high degree of internal consistency in the measure.

d. Turnover Intent

Turnover Intent was measured via a self-report Turnover Intention Tool (Appendix D) administered during the last week of Versant RN Residency.

e. Mentoring Model

The mentoring model data point is collected through ongoing conversation with the participant site RN Residency Managers. Mentoring model type can also be inferred from the

mentoring topics and curriculum assigned to the facility through a Voyager web portal (Dr. Sean Early, personal communication, March 25, 2012). Mentor type data was obtained via an excel spreadsheet from Dr. early and merged with the master data file.

5. Data Analysis

Table II outlines the variables of interest for this study and their corresponding measures:

Table II
STUDY VARIABLES AND CORRESPONDING MEASURES

Construct	Operational Definition	Measures	Indicators
Job Embeddedness	Combined factors that keep an individual from leaving his/her job	Proxy Measure 1: Group Cohesion Scale Proxy Measure 2: CWEQI	Summed total from each of the six items obtained from the measure completed the last week of the residency Summed total "have" scores from each of the subscales obtained from the measure completed the last week of the residency
Turnover Intent	New graduate reported intent to leave facility within 12 months post completion of residency	Turnover Intention Questionnaire	Yes or no response to turnover intent question
One on One Mentoring	New graduate nurses who received one on one mentoring as the mentoring model	Facility data point in Versant data base	Receipt of one on one mentoring intervention
Group Mentoring	New graduate nurses who received mentor circles as the mentoring model	Facility data point in Versant data base	Receipt of mentor circle intervention

The primary data is stored in a Statistical Program for the Social Sciences (SPSS) data file at Versant, LLC. Variables of interest for the dissertation were selected and transferred to a separate SPSS file by Dr. Sean Early and sent directly to this student researcher following UIC IRB approval.

Descriptive statistics (means, standard deviations, and ranges) appropriate to the level of the item were computed and used to describe the participant and facility demographics as to accurately describe the sample under study. Participant demographics were collected via the Demographic Fact Sheet.

Data Analysis for Aim 1: Compared the new graduate nurses' perceptions of connection to their unit assignment colleague group by assessing for any similarities and differences in the Group Cohesion Scores of nurses who received one on one mentoring versus those that were mentored in a group.

A forward stepwise regression analysis was used to analyze the data for this aim. Multiple regression is the instrument of choice when the researcher believes several independent variables interact to predict the value of a dependent variable. This test measures the degree to which each of the independent variables contributes to the prediction. Multiple regression assumes that the independent variables are not highly correlated with each other and that the independent variables predict the dependent variable, but the reverse is not true; the dependent variable cannot predict the values of the independent variables. In forward stepwise regression, independent variables are entered into the analysis one at a time and measure the degree to which one independent variable correlates to the dependent variable. One by one, additional independent variables are added to the equation and the degree (if any)

to which each predict the dependent variable is noted (http://www-users.cs.unm.edu/~ludford/Stat_Guide/Multiple_regression.htm, accessed on March 24, 2012).

For this aim, Group Cohesion was the dependent variable and was considered continuous. The researcher ran a preliminary regression model with the demographics of the sample allowing them to claim their bit of variance first. Next the mentoring models were added and the results were analyzed.

Data Analysis for Aim 2: Compared the new graduate nurses' perceptions of work empowerment structures by assessing for any similarities and differences in the CWEQ scores of nurses who received one on one mentoring versus those that were mentored in a group

Just as in Aim 1, a forward stepwise regression analysis was completed, allowing the demographic variables to claim their variance first. In this case, the CWEQ total "have" scores represent the dependent variable.

Data Analysis for Aim 3: Determined if there is a relationship between new graduate nurses' perceptions of job embeddedness (as measured via proxy measures) and new graduate nurses' turnover intent

The data analysis for aim three and four were run together. In this case a regression analysis was run using turnover intent as the dependent variable with mentor circles, group cohesion scores and total "have" CWEQ scores as the independent variables. One on one mentoring was not run as an independent variable given that it was found to have a negative significant impact on both group cohesion and CWEQ in the earlier analysis for aims one and two.

Data Analysis for Aim 4: Determined if there is a relationship between the mentoring intervention and new graduate nurses' turnover intent

To account for missing data, if participants responded to less than 50% of required items, the whole case is dismissed. For those participants that respond to at least 50% of the required items, researchers impute mean score values of the cohort as substitute scores for the missing items (Dr. Sean Early, personal communication, March 20, 2012). Imputed scores were used for aim two.

6. Strengths and Limitations

Choosing to perform a secondary data analysis presented some great advantages to the researcher. The first major advantage was economy; because someone else had already collected the data, the researcher did not have to devote time or resources to this phase of the research process. In addition, secondary data allowed the researcher access to a breadth of available data (in this case collected by Versant) with expertise and professionalism that would not have otherwise been available to the individual researcher. However, secondary data analysis also presented some study limitations. Because the data was not originally collected to answer the research questions of this particular study, pertinent information was not collected. For this dissertation study, the use of the original measure of job embeddedness was not chosen as one of the Versant RN Residency measures. Another challenge related to the fact that this researcher was not involved in the planning or execution of the data collection process. Working closely with members of the Versant team to gain exposure to the design of the original study facilitated great learning about the data collection process, but as the analysis for this study was undertaken there were some challenges in obtaining the data set in a usable format causing the need for merging of data files which added time to the analysis phase.

A second limitation of the study included the use of proxy measures to assess new graduate nurse perception of job embeddedness. Proxy measures are used to determine certain outcomes when you do not have the ability to measure the exact value. To attain correct conclusions through proxy measures, one must ensure that you have a degree of reliability which means the measures reflect items which express the same phenomenon or situation. As previously described the Versant database includes two measures whose items closely reflect items in the original hallmark 42- item measure of job embeddedness introduced by Mitchell and his colleagues in 2001. Given that this hallmark measure was modified by many that followed, it seemed plausible to use proxy measures in which the items closely parallel those in the original measure, however there is a chance that the measure may not be entirely accurate in its' assessment of the construct.

7. Protection of Human Subjects

A Notice of Determination of Human Subjects Research was obtained from the Institutional Review Board at the University of Illinois at Chicago (Appendix E). As a secondary data analysis of data collected from subjects between 2007 and 2010 by Versant, LLC were utilized to address the aims outlined in the study; there was no interaction between participants and the researcher. In addition, no new subjects were recruited for the purposes of this study. There were no risks for the study participants. Participation in this study was voluntary and all participating subjects provided informed consent. Data was received from Versant, LLC in aggregate thus no subjects were able to be identified. The data were de-identified before output in two ways. First the facility was assigned a numeric code so that the researcher does

not know which facility the data came from. Secondly, the individual respondent information was aggregated using a RN Resident identification number that includes a facility code, their timing group (month/year they entered the study), and their individual identification number within their cohort. The facility or the researcher had no way of determining the RN Resident identification for any individual staff member (Dr. Sean Early, personal communication, March 22, 2011). Once data was received from Versant, it was stored in a secure, password-protected computer database and was not made available to anyone not approved to receive access via the UIC IRB.

There were no direct benefits to the subjects of this study. Findings from the study are of interest to those developing and implementing new graduate transition programs and may prove to benefit future new graduate nurses during their transition to practice as well as to the nursing and human resource leaders in the institutions in which they work.

8. Innovation, Contribution, Implications for Practice, Research and Education

The findings of this research contribute greatly to the understudied relationship between job embeddedness, mentoring and new graduate nurse retention. Overall, the current body of knowledge related to mentoring and its' impact on nurse retention is sorely lacking a theoretical framework to guide data interpretation. In addition, there is limited work published on the outcomes associated with one on one versus group mentoring in relationship to nurse retention. Given the economic challenges faced by acute care institutions today, information of this nature is essential to allow nurse leaders to make informed data driven decisions about the kinds of structure and process investments they should make in supporting the transition of

new graduate nurses to practice. The implications for practice, research and education are reviewed in detail in each of the two articles.

Mentoring is a multidimensional concept that lacks concrete definition. Thesis Article #2 entitled - **Mentoring in the Context of Employee Retention: A Critical But Understudied Concept**- presents the findings of a concept analysis which explored the meaning of mentoring within the context of employee retention. Given that nurses in who practice in the specialty of nursing professional development are often accountable for overseeing the on-boarding programs for new graduate nurses, this article is intended to increase awareness of the implications for practice and research for this particular nursing specialty. Mentoring is often one component of new graduate transition programs. This paper explores the concept of mentoring through review of mentoring definitions, surrogate terms, antecedents, consequences, and related concepts from a sample of 36 articles both within and outside of the nursing literature. The results clearly illustrate the need for Nursing Professional Development Specialists to begin to quantitatively measure mentoring interventions and their contributions to the mentee, the mentor, and the organization in order to advance the science behind the value and return on investment of this activity.

The results of the secondary data analysis prove quite interesting and appear to be the first in the nursing mentoring literature that quantitatively compare the outcomes of two types of mentoring interventions. The results of the analysis are presented in detail in Thesis Article #1 entitled **Retention of Our New Graduates: One on One Versus Group Mentoring- Does It Really Make A Difference?** There are significant costs associated with new graduate nurse

turnover. Given the state of healthcare reimbursement and the nursing shortage nurse leaders should take advantage of strategies that demonstrate the ability to help control these costs. This article highlights the results from the exploratory comparative cross sectional study which analyzed the effect of one on one and group mentoring on group cohesion, work empowerment and turnover intent scores of 2032 new graduate nurses that completed the Versant RN Residency program using the theory of job embeddedness as the framework for analysis. The findings demonstrate that group mentoring positively influences new graduate nurses' intent to stay in their position for at least 12 months following the completion of a residency program. Conversely, one on one mentoring appears to negatively impact turnover intent. The results of this study provide two key empirical findings that are critical to nurse leaders. The first, group mentoring interventions positively impact a new graduate's perceptions of group cohesion and work empowerment. The second, the combined forces of these positive perceptions of group cohesion and work empowerment paired with being part of a mentor circle, significantly influence a new graduates' decision to stay in his/her position for 12 months following the completion of their residency program. This finding calls nursing administrators to strongly consider integrating group mentoring interventions into their on-boarding programs for new graduates.

II. RETENTION OF OUR NEW GRADUATES: ONE-ON-ONE VERSUS GROUP MENTORING- DOES IT REALLY MAKE A DIFFERENCE?

A. Abstract

Objective: This study assessed the effect of one-on-one and group mentoring on new graduate nurses' turnover intent using the theory of job embeddedness as the framework for analysis.

Background: There are significant costs associated with new graduate nurse turnover. Given the state of healthcare reimbursement and the nursing shortage nurse leaders should take advantage of strategies that demonstrate the ability to help control these costs.

Methods: This exploratory comparative cross sectional study analyzed group cohesion, work empowerment and turnover intent scores of 2032 new graduate nurses that completed a formalized new graduate nurse residency program.

Results: Group mentoring positively influences new graduate nurses' intent to stay in their position for at least 12 months following the completion of a residency program. Conversely, one-on-one mentoring appears to negatively impact turnover intent.

Conclusions: Nursing administrators should strongly consider integrating group mentoring interventions into their on-boarding programs for new graduates.

B. Background and Significance

It is predicted that by 2025, the United States will experience a shortage of 260, 000 registered nurses- a shortage twice as large as any nursing shortage experienced since the introduction of Medicare in the 1960's (Berhaus et. al., 2009). Further complicating the availability of nurses for the future is the fact that, among new graduates, job turnover is extremely high. Between 27% and 53% of new graduate nurses change jobs within their first year of work (Pricewaterhouse, 2007). The turnover of one new graduate can cost a hospital between \$82,006 and \$88,032 per nurse (Park & Jones, 2010). In addition to the financial implications of turnover on the organization, Holtom, Mitchell & Lee (2006) believe that when a valued person leaves an organization, the social network is disrupted and presumably some of the social capital leaves as well. For this, there is no price tag. Since about 90% of newly licensed nurses start their careers in hospitals (Brewer et. al., 2012), a focus on reducing turnover in new graduates is critical and cannot be ignored. Appropriate engagement and retention of new graduate nurses can be one of the most effective ways to reduce labor cost. Mentoring interventions are typical components of many new graduate on-boarding programs aimed at new graduate nurse engagement, however little is known about what types of mentoring interventions may be the most effective. Understanding the true value of those mentoring interventions, whether they be one on one or group mentoring, can result in a more efficient and effective on-boarding process for new graduates and the organizations in which they work. It is therefore essential for nurse leaders to be apprised of retention interventions that can soundly demonstrate a return on investment.

Therefore, the purpose of this study was to assess the effects of two different mentoring interventions, one on one mentoring versus mentor circles (group mentoring), on new graduate nurses' turnover intent utilizing the theory of job embeddedness as the framework for analysis.

C. Theoretical Framework

Job embeddedness has been defined as “the combined forces that keep a person from leaving his or her job”. Originally presented by Mitchell, Holtom, Lee, Sablinsky and Erez in 2001, the concept was introduced to help explain the reasons that individuals stay at an organization. The theory behind the concept of job embeddedness centers on the basic premise that individuals remain at an organization partly because they feel connected to a social web. The concept of job embeddedness has two components, *on-the-job embeddedness* referring to how connected a person is to the organization in which he or she works and *off-the-job embeddedness* which refers to how entrenched a person is in his or her community.

Mitchell and his colleagues (2001) present three key facets of job embeddedness- links, fit and sacrifice. Each of these three facets are components of both on the job and off the job embeddedness as described above. *Links* refers to the extent to which individuals feel linked to other activities and people (Psychlopedia, 2011). Links can include facts such as the number of colleagues with whom the employee interacts, the number of teams or committees they participate on, the amount of support and recognition they receive from their peers, and the number of years in their position. According to Mitchell et al. (2001), the higher the number of links between the person and the web, the more the employee is bound to the job and the

organization. These so –called links are critical points in the discussion of new graduate nurse retention.

The second facet is referred to as *fit*. *Fit* refers to the employee's relationship between their job and other facets of their life. Does the position utilize their skills and talents? Does the job support their values, culture and preferences? Does their work schedule support a work-life balance? Of particular interest in relationship to this paper is the fact that socialization opportunities for newcomers also play a factor in *fit*. Socialization interventions which provide new employees the opportunities to meet and get to know other employees, especially their immediate team members, impacts their perceived organizational *fit* which in turn affects turnover (Cable & Judge, 1996). Mentoring can be seen as a key socialization tactic for newcomers. Theoretically, the better the fit, the more likely the employee will feel professionally and personally committed to the organization (Mitchell et. al., 2001).

The third facet of job embeddedness is referred to as *sacrifice*. In simple terms, sacrifice relates to what individuals would give up if they left the organization. Examples of employee sacrifices include leaving colleagues, losing tenure and job stability, and moving to a new job with less attractive benefits. In line with the theoretical underpinnings for links and fit, the more sacrifice an employee believes he/she will have to make if they leave the organization, the more likely they are to stay. Given that this study focuses on the newly employed graduate nurse with limited ties to the organization, only the facets of *links* and *fit* are explored.

D. Review of the Literature

a. Mentoring and Retention

Mentorship has been defined as “an intense interpersonal exchange between a senior experienced colleague (mentor) and a less experienced junior colleague (protégé) in which the mentor provides support, feedback, and direction regarding career plans and personal development” (Russell & Adams, 1997). Mentors provide two primary functions: career and psychological support. Career related support includes coaching, supplying protection, providing challenging assignments, increasing employee’s exposure and visibility (Dreher & Ash, 1990). According to Grindel and Hagerstrom (2009), mentorship regardless of the mentoring models, consists of three actions: emotional support, career assistance and role modeling. Mentoring can occur through a variety of models, which include individual one on one relationships or group mentoring. An extensive review of the nursing literature revealed a number of gaps in describing the relationship between mentoring and new graduate nurse retention. Approximately half of the journal articles reviewed simply served to describe the contents of the new graduate mentoring model, the rationale for implementing the program, and the anecdotal outcomes of the mentoring interventions (Smith, 2007; Klein, 2009; Bilinski, 2002; Persaud, 2008; Bally, 2007; Paschke, 2007; Latham, Hogan & Ringl, 2008; Butler & Felts, 2006; Funderburk, 2008; Kanaskie, 2006). Overwhelmingly, challenges with individual facility nursing turnover and/or nursing recruitment were cited as motivation to implement formal mentoring models. A number of the studies, although not well grounded in research methods, did illustrate an inferred relationship between retention or turnover and the mentoring intervention by reported decreases in turnover rates (Faron & Poelter, 2007; Hurst & Koplin-

Bacuum, 2005); or increases in retention rates (Mills & Mullins, 2008; Halfer, 2007; Hayes & Sexton Scott, 2007; Myers Bratt, 2009). Only one study reported turnover intent data (Scott & Smith, 2008). In this particular study the mentoring model began as one on one and then was altered to quarterly group mentoring due to the inability of the organization to sustain the one on one model. Mentoring interventions ranged from 5 weeks to 18 months and the majority of those mentoring models were one on one. Very few the studies utilized a theoretical framework to guide their analysis. None compared the outcome of one on one versus group mentoring models.

b. Job Embeddedness

To gain an understanding of the available literature demonstrating a relationship between mentoring, job embeddedness, and retention, a literature search was conducted in two large electronic databases on November 12, 2011. For each search, three key search terms were entered with no date range restrictions: mentoring, job embeddedness and retention. In searching the Cumulative Index of Nursing and Allied Health Literature, only one result was obtained- a journal article recently published in October of 2011 notably job embeddedness theory in the context of new graduate nurse retention. The same search was conducted using Psych Info and 27 results were obtained. In reviewing the titles and abstracts of each of the 27 results, none of them presented information directly linking the three search terms. Although a number of the articles mentioned the impact that mentoring has on facilitating the connection of an employee to his/her organization as well as the role that mentoring plays in employee

retention, only one utilized the theory of job embeddedness as the theoretical framework guiding the results (Halfer, 2011).

In their original research to introduce the concept of job embeddedness, Mitchell and his colleagues actually administered their measure of job embeddedness to two sites known for their relatively high employee turnover, one grocery store chain and a community hospital. In this work job embeddedness was shown to predict voluntary employee turnover over and above job satisfaction and organizational commitment. They demonstrated that socialization of newcomers is a key cause of job embeddedness. According to Payne and Huffman (2005), mentoring can be instrumental in the initiation and maintenance of an employee's socialization into an organization.

David Allen (2006) illustrates that socialization tactics influence new employee turnover by embedding newcomers more extensively into the organization. According to Allen, a major purpose of socialization is to encourage newcomers to become participating members and to find their place in the new environment. By embedding newcomers more extensively into a social web can serve to restrain them from voluntarily leaving the organization. Mentoring can certainly be considered a socialization tactic. A summary of ideas for embedding people into an organization were presented by Holtom and his colleagues in 2006. Two of the interventions targeted at improving organizational links include providing mentors to sponsor and coach new or young employees and providing opportunities for knowledge sharing among employees to improve skill development. In regards to organizational fit, they suggest providing socialization

opportunities to newcomers that allow them to meet and get to know other employees, especially group or team members.

Reitz and colleagues (2010) utilized Mitchell's original measure in their study to assess which independent variables best predict nurse (not specifically new graduate nurses), retention as measured by intent to stay. They found that the more embedded the nurse or the older the nurse, the greater the likelihood they had at remaining in their present position for the next 12 months. Reitz and colleagues suggest that job embeddedness is an important antecedent to nurse retention as the organization can play a role in modifying the nurses' overall perception of job embeddedness.

E. Methods

Through the use of a secondary data analysis, this exploratory comparative cross sectional design study compared the new graduate's perceptions of job embeddedness, using two proxy measures of job embeddedness (Group Cohesion Scale and Conditions of Work Effectiveness Questionnaire (CWEQ), by assessing for any similarities and differences in the scores of new graduate nurses who received one on one mentoring versus those that were mentored in a group. In addition, the relationship between mentoring, job embeddedness and new graduate nurses' turnover intent were explored.

F. Sample

Data for this study was obtained from Versant, LLC. The Versant RN Residency is an 18-week long, outcomes-validated educational and clinical immersion program. Based on Dr.

Patricia Benner's Novice-to-Expert Framework, Versant's program is designed to provide new graduate RNs with the right information in the right sequence. The components of the program include formal and structured mentoring.

A convenience sample of 2032 new graduate nurse who completed the 18 week Versant RN Residency between 2007 and 2010 were included in this analysis. The majority were females with greater than 50% ages 23-30 years old. 55% were Bachelor degreed nurses and 39 % held Associate degrees. 54.9% were mentored through mentor circles and 45.1% received one on one mentoring.

G. Measures

1. CWEQ II

The original CWEQ is a 31-item questionnaire designed to measure four dimensions of work empowerment based on Kanter's theory (Kanter, 1977). These four dimensions include perceived access to opportunity, support, information and resources. According to Kanter, access to each of these structures is facilitated by formal power and informal power. Formal power includes characteristics such as flexibility, adaptability, visibility, and relatedness to the organizations' purpose and goals. Informal power characteristics are developed as a result of social connections and include the communication channels that are developed with peers, mentors, subordinates and other interdisciplinary teams. Kantar believes that employees who perceive high levels of each of these dimensions have stronger organizational commitment, increased feelings of autonomy and self-efficacy thus they are more productive and effective in meeting organizational goals (Laschinger, Finegan & Shamian, 2001). Kanter's original measure

has been modified over time for use within nursing. Reliability and validity of this measure are most notably attributed to research done by Dr. Heather Spence Laschinger (<http://publish.uwo.ca/hkl/>).

Versant utilizes a modified CWEQ. This modified CWEQ consist of 30 items divided into four subscales: opportunity, information, coaching and support, and job activities. Critical to note are two modifications. First, subjects are asked to score each of the items based on what they currently have as well as how much they would like to have. For the purposes of this study only the “have now” items were used. Secondly, on the Coaching and Support subscale, subjects are asked to evaluate the items based on the support provided by their supervisor.

2. Group Cohesion Scale

The Group Cohesion Scale is a unidimensional, 6-item instrument which utilizes a 7-point Likert response scale to evaluate employee perceptions of their colleague group. The measure consists of two subscales- Attractiveness and Cohesion. The Attractiveness subscale consists of four items assessing productivity, efficiency, morale, and belongingness. These items are scored using the 7- point Likert with scores ranging from “very much below average” to “very much above average”. The Cohesion subscale consists of two items measuring personal feelings and working together. The scores on this 7-point Likert range from “dislike it” to “like it very much”. Scores from each of the six items are summed for a total group cohesion score. Higher scores indicate higher levels of group cohesion. The same process that was utilized to review the reliability and validity of the CWEQ II was used to evaluate the Group Cohesion Scale and reliability and validity are reported throughout and well established.

3. Turnover Intent

Although measured quite commonly within the nursing literature, difficulties in consistently defining turnover make it difficult to provide a true comparison of the study outcomes. It is important to note that job embeddedness is characterized as a “retention” construct which assesses the constraining forces that keep an employee at their current job. Reitz and Anderson³⁵ caution that the factors embedding an employee to remain at their current job are significantly different than the absence of turnover factors such as pay and work conditions. For the purposes of this study, turnover Intent is measured via a self-report Turnover Intention Tool administered during the last week of Versant RN Residency. Participants are asked to respond to the question, “Do you plan to leave this facility within the next year?” by using a 6 point rating scale ranging from “not at all” to “I surely do”.

4. Mentoring Model

The mentoring model data point is collected through ongoing conversation with the Versant participant site RN Residency Managers. Mentoring model type can also be inferred from the mentoring topics and curriculum assigned to the facility through a Voyager web portal (Dr. Sean Early, personal communication, March 25, 2012). Two types of mentoring interventions exist: one on one and mentor circles.

H. Findings

Multiple regression is the analysis of choice when the researcher believes several independent variables interact to predict the value of the dependent variable. A preliminary regression model was run with the demographics of age, gender, and education. None of these variables proved significant.

Table III
REGRESSION MODEL SUMMARY OF FINDINGS

Regression Models								
Dependent	Independent	B	Std. Error	Std. Coef.	t	p value	R ²	N
TotalWEHavelmp	(Constant)	94.063	.434		216.868	<0.0005	.009	2032
	One on one mentoring	-2.766	.646	-.095	-4.284	<0.0005		
TotalWEHavelmp	(Constant)	91.297	.478		190.889	<0.0005	.009	2032
	Mentor Circles	2.766	.646	.095	4.284	<0.0005		
TOTAL Group Cohesion	(Constant)	35.190	.174		202.700	<0.0005	.009	2027
	One on one mentoring	-1.112	.259	-.095	-4.300	<0.0005		
TOTAL Group Cohesion	(Constant)	34.079	.192		177.885	<0.0005	.009	2027
	Mentor Circles	1.112	.259	.095	4.300	<0.0005		
Intent To Leave	(Constant)	4.565	.191		23.935	<0.0005	.111	1996
	TotalWEHavelmp	-.014	.002	-.170	-7.246	<0.0005		
	TOTAL Group Cohesion	-.043	.005	-.203	-8.658	<0.0005		
	Mentor Circles	-.187	.052	-.076	-3.585	<0.0005		
TOTAL Group Cohesion	(Constant)	36.104	.936		38.575	<0.0005	.003	1600
	Education	-.359	.255	-.036	-1.405	.160		
	AgeGroup	-.301	.161	-.048	-1.869	.062		
	Gender	.215	.374	.014	.577	.564		
TotalWEHavelmp	(Constant)	95.485	2.370		40.291	<0.0005	.001	1602
	Education	-.446	.646	-.018	-.690	.491		
	AgeGroup	-.299	.407	-.019	-.734	.463		
	Gender	-.470	.946	-.012	-.496	.620		

1. Mentoring and Group Cohesion

Next, the regression analysis was run using the dependent variable, TOTAL Group Cohesion at end of residency (18 weeks) with the Independent variable -the mentoring intervention. As illustrated in Table 2, a p-value < 0.0005 was obtained indicating a significant association between one- on- one mentoring and group cohesion. Surprisingly, however, the association was not a positive one ($B = -1.112$) providing evidence that one- on- one mentoring actually lowers the new graduates' perception of group cohesion. Conversely, however, the results indicate that mentor circles **do** have a **positive** impact on group cohesion ($p < .0005$; $B = 1.112$).

2. Mentoring and Work Empowerment

Similar results were obtained for the work empowerment variable. Here, a regression analysis was performed using the aggregate of all of the "have" scores on the CWEQ measure at the end of the residency as the dependent variable and the mentoring interventions as the independent variable. Again, one on one mentoring appears to lower the new graduate's perceptions of work empowerment ($p < 0.0005$; $B = -2.766$) while, just as with group cohesion, mentor circles positively influence their work empowerment scores ($p < 0.0005$; $B = 2.766$).

3. Turnover Intent

The goal here was to assess the relationship between group cohesion, work empowerment structures, mentoring and the new graduates' turnover intent following the completion of his/her residency. Results indicate that all three of the independent variables are significantly associated with turnover intent (p values all= <0.0005). The standardized co-efficients

demonstrate that for every unit increase in total group cohesion, work empowerment, and mentor circles, a new graduate's turnover intent decreases.

I. Discussion

One might consider the findings related to the relationship between one on one mentoring, work empowerment structures, and group cohesion initially surprising. However, in looking at the theoretical assumptions of job embeddedness as well as the items on the measures used, conceptually there should be no surprise. The basic premise of job embeddedness is that individuals remain at an organization because they feel connected to a social web. The outcome of one on one mentoring can be impacted by a number of things including the mentor/mentee fit, the actual access to organizational information that the mentor has, and the mentor's attitude and beliefs about the organization. Conversely, when an individual new graduate is part of a mentor circle, there is more than one person to impact that connection and just by purely being part of a group mentoring intervention; a social network is naturally created. This finding suggests that nurse leaders and nursing staff development specialists should consider group mentoring interventions as part of their new graduate on-boarding process. Not only does group mentoring appear to be more effective, it may also prove to be less costly than one on one mentoring.

Although a highly debated measure, the lower R square results within this analysis lend caution to the researcher that there most likely are other variables present that contribute to new graduate's perceptions of group cohesion, work empowerment and intent to stay. Conceptually this makes complete sense. There are many factors that influence a new

graduate's transition to practice. However, what makes this finding related to the mentoring valuable so significant is that this variable is completely controllable by nurse leaders. Leaders can choose to have or not to have a mentoring interventions as part of their new graduate transition programs AND they can choose the mentoring type, one-one-one or group. Sadly, it is often what appears to be these "softer" interventions that are eliminated from on boarding programs for both new and experienced nurses. These findings certainly present some empirical food for thought before the next such revisions to new graduate transition programs are made.

The findings of this study, a first of its kind within the nursing and mentoring literature, open up a world of opportunity to continue to scientifically explore and empirically evaluate the impact of mentoring on new graduate nurse retention. First and foremost, the economic implications of a group mentoring intervention on actual retention rates need to be compared with the new graduates 12 month turnover intent. If available, any qualitative feedback from these new graduates should be correlated with the quantitative findings from this study. Finally, nurse researchers need to explore how long the mentoring intervention should continue to serve as a valuable retention tool.

J. Conclusions

The results of this study provide two key empirical findings that are critical to nurse leaders. The first, group mentoring interventions positively impact a new graduate's perceptions of group cohesion and work empowerment. The second, the combined forces of these positive perceptions of group cohesion and work empowerment paired with being part of a mentor

circle, significantly influence a new graduates' decision to stay in his/her position for at least 12 months following the completion of their residency program. Given the economic challenges faced by acute care institutions today, information of this nature is essential in that it provides nurse leaders the ability to make informed data driven decisions about the kinds of structure and process investments they should make in supporting the transition of new graduate nurses to practice. Empirically validated retention initiatives for this group of employees are essential. In this case, group mentoring appears to be a completely controllable intervention worth investing in.

First and foremost, nurse leaders should assess current mentoring practices for new graduates in their institutions. If one on one mentoring interventions are currently in place, the cost benefit of those interventions should be calculated and strong consideration for the implementation of group mentoring interventions should be considered. This mentoring type may also prove more cost effective and provide a stronger positive influence on new graduate retention rates. Nurse leaders should also give considerable thought to investing in the training and development of staff to serve as mentor circle facilitators for new graduate nurses. Often times, professional development staff serve as an excellent choice. Finally, given that the current body of knowledge related to mentoring and mentoring type and its quantifiable impact on new graduate nurse retention is sorely lacking, nurse leaders should consider putting process and outcome measures in place at their organizations which in turn could greatly contribute to advancing our knowledge in this critical area.

III. MENTORING AND NEW GRADUATE NURSE RETENTION: A CRITICAL BUT UNDERSTUDIED CONCEPT

A. Abstract

Many Nursing Professional Development (NPD) Specialists lead on-boarding initiatives for new graduate nurses. Mentoring is often one component of new graduate transition programs. This paper explores the concept of mentoring through review of mentoring definitions, surrogate terms, antecedents, consequences, and related concepts from a sample of 36 articles both within and outside of the nursing literature. The results clearly illustrate the need for NPD Specialists to quantitatively measure mentoring interventions and their contributions to the mentee, the mentor, and the organization.

B. Introduction

There is currently a nursing shortage in the United States which is projected to continue for some time. According to recent research completed by Beurhaus, Auerbach and Staiger (2009), the United States will experience a shortage of 260, 000 registered nurses in acute care hospitals by 2025. To compound this problem even further, between 27% and 53% of new graduate nurses changed jobs within their first year of work (Price Waterhouse Coopers, 2007). Not only does this affect the availability of acute care nurses, the cost of turnover of this nature is extremely costly. The departure of one new graduate within their first year can cost a hospital between \$82,006 and \$88,032 per nurse (Park and Jones, 2010). Aside from this financial impact, Holtom, Mitchell & Lee (2006) believe that when a valued person leaves an organization, the social network is disrupted and presumably some of the social capital leaves as well. For this, there is no price tag. Retaining new nurses is critical in order to mitigate both

the current and future shortage. Nursing Professional Development (NPD) Specialists are often the facilitators of new graduate transition programs in acute care organizations. Providing them with strong evidence based information about what new graduates report as valuable to their transition is key in their ability to influence a reduction in new graduate nurse turnover.

Pearson and Floyd (2003), report that a major reason for new graduate nurse's turnover is a "non-supportive environment" for them during their initial role transition from student to professional. More specifically problems with professional socialization such as horizontal violence (Greenwood, 2000; Wheeler et al., 2000, Duscher, 2001) as well as issues related to interpersonal conflict in the nursing profession can lead to a host of problems including a significant decrease in nursing self-confidence which has been associated with reduced retention rates (Strachota et. al, 2003). According to Cowin & Hengstberger-Sims (2006), many new graduates refer to interpersonal conflict in the workplace as a leading cause of new graduate attrition.

It has been acknowledged for many years that new graduate nurses need support and guidance (Alderman, 1999). Yet, the support offered to new graduate nurses is inconsistent, ranging from well-structured formal orientation curriculum to nothing at all. Many hospital-based unit nurse managers as well as nursing preceptors report that even with a structured new graduate nurse transition program, the new graduate nurses are often not adequately prepared to perform in their role when they arrive on the unit or department. This causes much frustration both on the part of the new graduate as well as the unit staff. White (1996)

outlines a theoretical framework that was created from a classic repertory grid analysis of new graduate nurses in relationship to the feelings they experience in clinical practice. “The wish is for more support. This does not appear to be more than a person with whom they can talk about the day and the difficulties they have faced” (p. 10). Feeling connected within the organization is key to a new graduate’s success. Mentoring programs are one way to foster this sense of connection. (Cottingham et. al., 2011; Green and Puetzer, 2002).

Unfortunately, the majority of mentoring publications in the nursing literature are not evidence-based. Although they may be valuable in describing mentoring programs and processes, they lack the ability to empirically demonstrate the meaning and the outcomes of the mentoring experience. It is critical that Nursing Professional Development (NPD) Specialists have a strong outcome-based understanding of what mentoring is and the value it can add to the individuals involved as well as to the organization. This knowledge will provide them the evidence they need to develop and implement successful new graduate on-boarding programs. The first step is for NPD Specialists to understand the concept of mentoring and to begin to build the case with nursing leaders related to the return on investment this intervention can bring to the organization.

The purpose of this concept analysis was to do just that. This article explores the meaning of mentoring within the context of employee retention, assess the antecedents and consequences of the mentoring experience, review other contexts in which the concept is used, and identify opportunities for future nursing research related to the concept of mentoring.

C. Framework

The method employed in this concept analysis is guided by the framework offered by Beth L. Rodgers, RN, PhD. Rodgers offers a modification of the method popularized by Walker and Avant (1995). Rodgers (1989) defines a concept as “an abstraction that is expressed in some form” (p.332). She believes that “concepts are formed by the identification of characteristics common to a class of objects or phenomena and the abstraction and clustering of these characteristics, along with some means of expression, most often a word (Rodgers and Knafl, 1993, p. 78). Rodgers (1989) suggests that Walker and Avant’s method limits the analysis from focusing on the “vast relationships that exist in the world. Similarly, their approach presents a static view of the world to the extent that concepts not only do not change throughout time but also remain constant across contexts” (p. 331).

As the review of literature was conducted it became apparent that the concept of mentoring did change across contexts. This recognition contributed to the selection of Rodger’s evolutionary approach. Therefore, the following method of analysis was used:

- Identify the concept of interest
- Identify surrogate terms and relevant uses of the concept
- Identify and select a setting and sample for data collection
- Identify the attributes of the concept
- Identify the references, antecedents and consequences of the concept
- Identify concepts that are related to the concept of interest
- Analyze the data in relation to the above characteristics of the concept

- Identify a model case of the concept
- Identify implications for future development of the concept (Rodgers and Knafl, 1993).

D. Literature Sample

A review of nursing, psychological, educational, and human resource literature was undertaken. The primary method of collection included computer data base searches using the Cumulative Index of Nursing and Allied Health Literature (CINAHL) via OVID and PsycINFO via ProQuest. Both searches limited articles between 1987 and 2011, simply based on the available index. Using CINAHL, the term “mentoring” generated 2,740 results. These results were then combined with the search term “employee retention” which narrowed the results to only two journal articles. The term “mentoring” was then combined with “retention” which provided a workable 220 results. These results were narrowed to academic journals and full text which brought the sample to 84. The “subjects” listing for each of these 84 results were then reviewed for fit to context of interest. Works that included students as subjects as well as results that appeared to be exclusively literature reviews were eliminated from the sample. This resulted in a final selected sample of 24 articles. Sixteen of these 24 articles referenced new graduate nurses as the subjects (Berezuik, 2010; Butler & Felts, 2006; Cottingham et al., 2011; Dingman, 2002; Faron & Poelter, 2007; Halfer et. al., 2008; Hayes & Sexton, 2007; North et. al., 2006; Persaud, 2008; Verdejo, 2002; Kuhl, 2005; Home, 2003; Meyer Bratt, 2009; Greene & Puetzer, 2002; Pinkerton, 2003; McCloughen & O’ Brien, 2005), seven referenced other nurses which included those moving laterally into a new specialty (Gordon & Melrose, 2011; McDonald et. al., 2010; Stewart, D. ,2006; Foley, 2011; Craft Morgan & Lynn, 2008; Mills et. al.,

2012; Hurst & Koplin-Baucum, 2005), and only one article referenced another discipline which was physical therapy (Stewart & Carpenter, 2009).

The same terms were utilized to perform the PsycINFO search. “Mentoring” combined with “employee retention” yielded a total of 40 results. These results were further limited to scholarly journals (excluding books and dissertations) which automatically limited the publication dates to 2003 to 2011. This left an available total of 21 results. Of the 21 results, three were duplicates of those selected in the CINAHL search, three were exclusively literature reviews, and three did not demonstrate a fit to the context of interest. This left a final PsycINFO sample of 12 articles. Five of the twelve articles referenced new faculty as the subjects (Baker, 2010; Garbee & Killackey, 2008; Hahs-Vaughn & Schreff, 2008; Ries et. al., 2009; Smith & Ingersoll, 2004) and the other seven represented other groups of employees including hospital employees and manufacturing companies (Apker et. al., 2009; Dawley et. al., 2010; Harris et. al., 2007; Holcomb & Bradley, 2003; Kraimer et. al., 2010; Strand & Bosco-Riggiero, 2010). A word table was created to code the findings from the total sample of 36 articles during the analysis. Column headings included “Definitions”, “Antecedents”, “Consequences”, “Referents”, “Surrogate Terms” and “Related Concepts”.

E. Definitions & Surrogate Terms

Despite the fact that “mentoring” was the primary concept in every source reviewed, 13 of the articles failed to provide any definition of the concept (Apker et. al., 2009; Baker, 2010; Cottingham et. al, 2011; Craft Morgan & Lynn, 2008; Gordon & Melrose, 2011; Halfer et. al., 2008; Hayes & Sexton, 2007 ;Holcomb-McCoy & Bradley, 2003; Hurst & Koplin-Bacuum,

2005; Meyer Bratt, 2009; Persaud, 2008; Ries et. al., 2009; Strand & Bosco-Rugierrio, 2010) .

Ten authors borrowed definitions from other sources in the literature (Berezuik, 2010; Dawley et. al., 2008; Dawley et. al., 2010; Foley, 2011; Hom, 2003; Kraimer et. al., 2010; McCloughen & O' Brien, 2005; McDonald et. al. 2010; Mills et. al., 2012 ;Pinkerton, 2003) and 13 provided varied self-developed definitions (Butler & Felts, 2006; Dingman, 2002; Faron & Poeitler, 2007; Garbee & Killacky, 2008; Greene & Puetzer, 2002; Harris et. al., 2007; Kuhl, 2005 ;North et. al., 2006; Smith & Ingersoll, 2004; Stewart, 2006 ;Stewart & Carpenter, 2009; Verdejo, 2002). A number of common themes arose within the definitions provided. The most common themes referred to mentoring activities including an experienced individual involved in a relationship with another individual in need of guidance for the purpose of professional development. Although not typically referenced, the mentoring relationship can occur between a supervisor and his or her subordinate (Strand & Bosco-Rugierrio, 2003). Of interest, Harris et. al. (2007) referenced career mentoring as a "parent like or adviser relationship". Typically the relationship extends over time with one reference stating that the relationship continues "as long as needed by the novice" (Kuhl, 2005). In summary, mentoring can come in two forms: career and psychological and can be mutually beneficial to the individuals doing and receiving the mentoring. Mentoring can involve a number of activities including role modeling, counseling, coaching, teaching, and providing support. Mentoring activities can be formal or informal. The mentoring intervention can also be provided one on one, in a group, or even electronically with by far the most referenced being in person one on one.

Only two other surrogate terms for the actual concept of mentoring surfaced.

Internship program was used synonymously with *mentoring program* by Halfer, Graf & Sullivan

(2008) when describing the organizational impact of a pediatric new graduate nurse mentoring program. The term “*mentorlink*” was used by Stewart & Carpenter (2009) when describing a mentoring program for rural physical therapists.

A variety of terms were used to express the individual performing the mentoring. By far the most common term was *mentor*. Others included *keystoner* (Butler & Felts, 2006), *clinical coach* (Meyer Bratt, 2009), and *career mentor* (Kraimer et. al., 2010). Mentors may include more experienced peers, faculty members, direct or indirect individuals in supervisory positions and equally experienced peers. Recipients of mentoring were not surprisingly referenced using typical and familiar terms: *mentees*, *protégés*, *new graduates*, and *orientees* consistently throughout the nursing and non-nursing literature.

F. Antecedents

Rodgers defines antecedents as elements that precede the occurrence of the concept. Fifteen of the 36 sources reviewed for this concept analysis reference high turnover as an antecedent of mentoring (Andrews & Buckley, 2010; Apker et. al., 2009; Berezuik, 2010; Green & Puetzer, 2002; Hahs-Vaughn & Shreff, 2008; Halfer et. al., 2008; Hayes & Sexton, 2007; Hurst & Koplin-Baucum, 2005; Meyer Bratt, 2009; Pinkerton, 2003; Ries et. al., 2009; Smith & Ingersoll, 2004; Stewart & Carpenter, 2009; Strand & Bosco-Ruggiero, 2010; Verdejo, 2002), followed closely by mention of scarce resources (Baker, 2010; Faron & Poeiter, 2007; Garbee & Killacky, 2008; Gordon & Melrose, 2011; Holcomb-McCoy & Bradley, 2003; Hom, 2003; McCloughen & O’ Brien, 2005; Mills et. al., 2012) within a particular profession. According to Greene and Puetzer (2002), in a health care climate characterized by volatile supply and

increasing demands for professional nurses, mentorship models are being adopted to retain and support new graduates in the delivery of high quality patient care. Mills et al. (2011) describe mentoring as the proposed solution to the problem of nursing workforce shortages. In their study done on the retention of junior faculty in academic medicine, Ries et al. (2009) cites that one of the goals of a faculty mentoring program is to facilitate the retention of promising junior faculty.

Inadequate support after an initial orientation period also appeared as an antecedent to mentoring through the literature. Cottingham et al. (2011) cite a number of studies which demonstrate that new graduate nurses are at an especially heightened risk for leaving the profession, noting inadequate support beyond the initial orientation period. Experienced nurses may not feel they are able to provide the needed support to new graduates because of the increasing demands in their workplace (Butler & Felts, 2006). In the context of a study completed by Dawley et al. (2010), on employees at three different organizations in the eastern United States, mentoring is seen as a way to increase employees' perceptions of organizational support.

Although the majority of the antecedents relate directly to a need by the mentee (in the case of inadequate support) or the organization (scarce resources and high turnover), two sources reference an antecedent that relates to those that mentor. Marie Foley (2011) refers to mentoring as a method by which to increase the professional satisfaction of experienced school nurses as well as novices. In a study of 20 currently employed nurses ages 22 to 55,

Morgan and Lynn (2008) reference a need to improve professional satisfaction as a precursor to mentoring.

G. Consequences

The consequences as identified through concept analysis are typically defined as situations that follow the occurrence of the concept. In this analysis the consequences were clearly grouped into three categories: those that impacted the mentor, those that impacted the mentee, and those that impacted the organization. Not at all surprising, sixteen of the 36 sources referenced the organizational impact of a mentoring intervention- that result being increased retention of employees (Baker, 2010; Berezuik, 2010; Dawley et. al.,2010; Faron & Poietler, 2007; Gordon & Melrose, 2011; Green & Peutzer, 2003; Halfer et. al.,2008; Hayes & Sexton, 2007; Meyer Bratt, 2009; North et. al., 2006; Persaud, 2008; Pinkerton, 2003; Ries et. al, 2009; Smith & Ingersoll, 2004; Verdejo, 2002). Another 16 sources referenced outcomes for the mentees. Those results fell into three categories which included increased motivation (Berezuik, 2010; Cottingham et. al., 2011), increased clinical performance (Cottingham et. al., 2011;Gordon & Melrose, 2011;Hom, 2003;North et. al., 2006), and decreased social stress (Berezuik, 2010; Craft Morgan & Lynn, 2008; Dingman, 2002; Gordon & Melrose, 2011; Hurst & Koplin-Baucum, 2005; North et. al., 2006; Stewart & Carpenter, 2009; Verdejo, 2002). In relationship to consequences for the mentor, personal and professional gains were noted (Cottingham et al., 2011; Kuhl, 2005; McDonald et. al., 2010; North et. al., 2006; Strand & Bosco-Ruggiero, 2010).

H. Related Concepts

As noted earlier, two specific surrogate terms were used to express the concept of mentoring and a number interchangeable terms used to describe the individuals providing and receiving the mentoring intervention were also presented. Mills et. al. (2012) presented the concept of “walking with another” in a study of Australian rural nurses’ experiences of mentoring. Through a grounded theory approach to analysis, the authors describe the initial phase of developing a supportive relationship by *getting to know a stranger*. This relationship is typically prompted by a new or novice nurse either experiencing a critical incident or showing potential. The experienced rural nurse then initiates a relationship with the novice. Activities within this phase include what the authors refer to as precepting or accidental mentoring. *Walking with another* is the second part of the process whereby novice and experience rural nurses identify strongly with each other and stay close for the purpose of supporting and developing the novice. This relationship typically develops into a deep friendship. This process is seen as a natural ongoing part of the experienced nurse’s practice as a seasoned rural nurse leader. Outcomes of this interaction are present for both the novice and the experienced nurse. Similar to what we see as consequences of mentoring, the novice is able to gather wisdom (increased clinical knowledge) and frame their nursing perspective of self to recognize significance in their role over time (decrease social stress of transition). The mentor also experiences personal and professional gains from the experience.

Harris and colleagues (2007) refer to the concept of “workplace social support”. This concept encapsulates activities such as mentoring, providing emotional support, assisting

others with tasks, and teaching about social power structures. In this study, the researchers utilized a quantitative measure referred to as the Mentoring and Communication Support Scale. This is a 15- item measure that yields subscale scores for Career Mentoring, Coaching, Collegial Social Support, and Task Support. The aim of this study was to determine which of the four aspects of workplace social support best predicted job satisfaction and job tenure. It is important to note that although Harris and colleagues call out career mentoring by actually using the mentoring term, the coaching and collegial social support items reference activities that one may very likely bucket into the psychological mentoring tenant, however they were not labeled in such a manner. Elements such as this continue to add to the lack of clarity of the concept of mentoring.

I. Model Case

Given the complexity of the concept of mentoring, selecting and illustrating a model case proves challenging. For the purposes of this analysis a model case was chosen to illustrate the themes that were pervasive in the literature reviewed here. These include new graduate nurses as the subject, high turnover as the primary antecedent, and one on one mentoring by a more experience colleague resulting in increased new graduate nurse retention. S.S. was a new graduate nurse on her eleventh week of orientation at a community based hospital. She was working on a surgical intensive care unit. S.S had chosen nursing as a second career; she ran a home day care prior to enrolling in nursing school. The nursing turnover for new graduates at her hospital during the first 18 months of employment was above the national average. As part

of the new graduate transition program, S.S. was assigned an experienced nurse mentor from the medical intensive care unit.

S.S entered the locker room to secure her belongings and begin her shift. Upon entering the locker room she overheard her preceptor for the day talking with another nurse from her unit. “These new grads take up a lot of time; I’ll trade you for a day just so I can get my work done and get out of here on time for one”. S.S. quietly put away her things and pretended she never heard the comment.

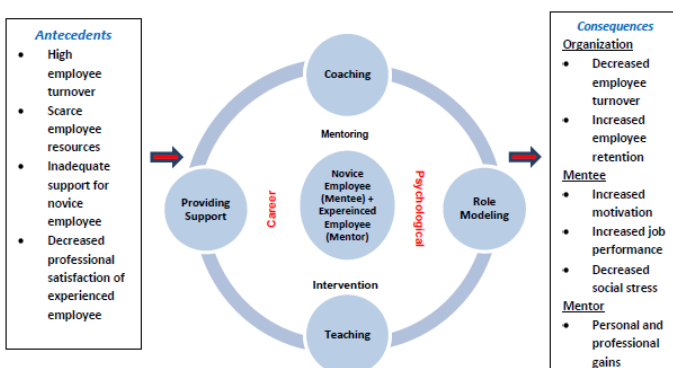
Soon after, S.S. needed to draw blood from a central line, something she had not done anywhere other than a simulated setting. When she asked her preceptor to join her, her preceptor replied, “just go ahead read the policy and procedure, it is really clear. Then if you don’t get it, give me a call and I will come when you have everything ready”. S.S. felt extremely alone with no one to turn to for help or advice. S. S. was scheduled to meet her assigned mentor for lunch later that day.

S.S. was able to get off the unit for a lunch break and met her mentor and shared the happenings of the morning. After listening, her mentor was able to provide her some sage words of advice as well as suggest a plan to support her in her next central line draw. After that conversation S.S. felt assured that she was not the first new graduate who had an experience such as hers. She later shared her interaction with her mentor with a few of her peers and felt a greater sense of support stating “I really appreciate the fact that our hospital has invested in supplying us with mentors, my mentor is certainly key to me choosing to stay here”.

J. Conclusions and Implications

Through this analysis, mentoring is seen as an unclear, complex, multidimensional, highly individualized concept. There are a limited number of studies with strong scientific rigor demonstrating the impact of mentoring interventions, illustrating a significant and important gap in nursing research. This finding presents an opportunity for NPD specialists to think about how they can empirically validate the value that their new graduate mentoring interventions bring to their organization, their mentors and their mentees. NPD specialists can disseminate the findings from this analysis to help nurse leaders to distinguish between the many related concepts that were presented in the literature. Mentoring, precepting, and coaching, for example are all very different concepts and should not be used interchangeably as they often are today. In addition, NPD specialists can begin to apply the learnings about the antecedents and consequences of mentoring which impact both new graduate and experienced nurse satisfaction. To foster further study and application of the tenants of this critical concept this author offers a proposed model of mentoring to be used as a conceptual framework for further NPD studies. The GRT Mentoring Model is illustrated below in Figure 1:

Figure 1. GRT Mentoring Model



There are a number of questions that still need to be answered including- What are the cost implications of offering one on one mentoring versus a mentor circle? How long is a mentoring intervention valuable to a new graduate nurse? What is the impact of mentoring on new nurse satisfaction at various time points throughout his/her transition to practice? How do different mentoring models impact new nurse retention? NPD Specialists can play key role in developing, implementing, and evaluating structures and processes to provide these answers and the above model can be used as a framework to design and analyze their work.

Demonstrating the impact and return on investment for educational programming is not a new concept. It is, however, one of the components that often are under reported within the NPD specialty. Given the proposed changes related to health care reform, it is critical that NPD Specialists provide strong empirical evidence for the value of what they believe to be a proven tool to support new graduate nurse retention. It is the hope that this concept analysis will serve as a springboard for NPD specialists to partner with nurse researchers to quantitatively measure mentoring interventions and their contribution(s) to the mentee, the mentor and the organization. The discovery that will occur through this process is key to the success of the nursing new graduates of the future. In addition, it will also foster the NPD Specialists' ability to use evidence-based mentoring interventions and monitor and report the outcomes of those interventions. These actions will provide a great contribution to the current gap in the mentoring literature that exists today.

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APPENDICES

APPENDICES

Appendix A

Demographic Fact Sheet

This tool is used with the "Week Two" evaluation packet.

Demographic Fact Sheet

For each item below, select the appropriate response.

Q1- Education Level (current):	
1	<input type="checkbox"/> Diploma
2	<input type="checkbox"/> Associate Degree
3	<input type="checkbox"/> Baccalaureate Degree
4	<input type="checkbox"/> Master's Degree
5	<input type="checkbox"/> Other
Q2- Age Group	
1	<input type="checkbox"/> <23 years
2	<input type="checkbox"/> 23-30 years
3	<input type="checkbox"/> 31-40 years
4	<input type="checkbox"/> 41-50 years
5	<input type="checkbox"/> >50 years
Q3	Previous experience in health care setting
	Yes: <input type="checkbox"/> No: <input type="checkbox"/>

Appendix A (continued)

Demographic Fact Sheet

Q4- If yes:			
1	How long?	Years: <input type="text"/>	Months: <input type="text"/>
2	What position?		
3	What healthcare area?	<input type="text"/>	
Q5	Do you have more than 6 months experience as a working registered nurse?	Yes: <input type="checkbox"/>	No: <input type="checkbox"/>
1	If you have had greater than 6 months RN experience, how long?		
2	If you have more than 6 months RN experience, when did you last work?		
Q6	Have you had experience as a nurse in another country?	Yes: <input type="checkbox"/>	No: <input type="checkbox"/>
Q7	Did you get your first choice for nursing unit?		
Q8	How did you hear about the RN Residency?		
Q9	Please select the Ethnic Identity with which you most closely identify:		
Q10	Gender:		

Appendix B

Conditions of Work Effectiveness

This tool is used with "Week 12" and "Last Week of Program" evaluation packets.

Conditions of Work Effectiveness

Purpose of this survey: This survey is designed to get your ideas about certain aspects of your job and hospital. Specifically, it explores access to:

- 1) Opportunities
- 2) Job activities
- 3) Information
- 4) Coaching and support

Your answers to this questionnaire are important. Please take your time to respond to each question as honestly as possible. All of your answers are strictly confidential.

Instructions: Please answer all of the questions that apply to your job. If a question does not apply, just leave blank and move on to the next one. Follow the instructions carefully. Generally, you will be asked to circle the number that corresponds to the answer that best reflects your ideas.

For each item below, select the appropriate response.

A- Opportunities			
Here is a list of some different opportunities for growth, development, and advancement that people might have in their jobs. For each one listed answer the two questions by circling the appropriate numbers:			
1. How much of this kind of opportunity do you have in your present job?			
2. How much of this kind of opportunity would you like to have in your present job?			
		1. How much do you have now?	2. How much would you like to have now?
1	Challenging work.	1 Not at all 2 3 A fair amount 4 5 A lot	1 Much less than I have now 2 3 As much as I have now 4 5 Much more than I have now
2	The chance to gain new skills and knowledge on the job.	1 Not at all 2 3 A fair amount 4 5 A lot	1 Much less than I have now 2 3 As much as I have now 4 5 Much more than I have now
3	Access to training programs for learning new things.	1 Not at all 2 3 A fair amount 4 5 A lot	1 Much less than I have now 2 3 As much as I have now 4 5 Much more than I have now

Appendix B (continued)

Conditions of Work Effectiveness

4	The chance to work together closely with your boss.	1 Not at all 2 3 A fair amount 4 5 A lot	1 Much less than I have now 2 3 As much as I have now 4 5 Much more than I have now
5	The chance to learn about how the hospital works.	1 Not at all 2 3 A fair amount 4 5 A lot	1 Much less than I have now 2 3 As much as I have now 4 5 Much more than I have now
6	Tasks that use all of your own skills and knowledge.	1 Not at all 2 3 A fair amount 4 5 A lot	1 Much less than I have now 2 3 As much as I have now 4 5 Much more than I have now
7	The chance to advance to better jobs.	1 Not at all 2 3 A fair amount 4 5 A lot	1 Much less than I have now 2 3 As much as I have now 4 5 Much more than I have now
8	Rewards for jobs well done.	1 Not at all 2 3 A fair amount 4 5 A lot	1 Much less than I have now 2 3 As much as I have now 4 5 Much more than I have now
9	The chance to develop individual friendships.	1 Not at all 2 3 A fair amount 4 5 A lot	1 Much less than I have now 2 3 As much as I have now 4 5 Much more than I have now
10	The chance to utilize tuition reimbursement.	1 Not at all 2 3 A fair amount 4 5 A lot	1 Much less than I have now 2 3 As much as I have now 4 5 Much more than I have now

B- Job Activities

Here are some of the job activities you may be involved in:

1. How much flexibility do you have?

2. How much flexibility do you need?

		1. How much flexibility do you have now?	2. How much flexibility do you need?
1	Getting around bureaucratic	1 Out of my hands 2	1 Much less than I have now 2

Appendix B (continued)

Conditions of Work Effectiveness

	regulations that get in the way.	3 Consulted 4 5 Act on my own	3 As much as I have now 4 5 Much more than I have now
2	Setting your own work hours.	1 Out of my hands 2 3 Consulted 4 5 Act on my own	1 Much less than I have now 2 3 As much as I have now 4 5 Much more than I have now
3	Contacting the people you need to be in touch with.	1 Out of my hands 2 3 Consulted 4 5 Act on my own	1 Much less than I have now 2 3 As much as I have now 4 5 Much more than I have now
4	Deciding how you do you work.	1 Out of my hands 2 3 Consulted 4 5 Act on my own	1 Much less than I have now 2 3 As much as I have now 4 5 Much more than I have now

C- Information

Another issue is how much information you have about what goes on in your hospital. For each of the items listed below, please answer the following two questions by circling the appropriate number:

1. How much knowledge about this item do you have?

2. How much knowledge about this item do you need to get your job done?

		1. How much knowledge do you have now?	2. How much knowledge do you need?
1	The current state of the hospital.	1 No knowledge 2 3 Some knowledge 4 5 Know almost everything	1 Much less than I have now 2 3 As much as I have now 4 5 Much more than I have now
2	The relationship of the work in your unit to the work of the hospital.	1 No knowledge 2 3 Some knowledge 4 5 Know almost everything	1 Much less than I have now 2 3 As much as I have now 4 5 Much more than I have now
3	How other people in positions like yours do their work.	1 No knowledge 2 3 Some knowledge 4 5 Know almost everything	1 Much less than I have now 2 3 As much as I have now 4 5 Much more than I have now
4	The values and goals of top management.	1 No knowledge 2 3 Some knowledge	1 Much less than I have now 2 3 As much as I have now

Appendix B (continued)

Conditions of Work Effectiveness

		4 5 Know almost everything	4 5 Much more than I have now
5	How salary and promotion decisions are made for people in positions like yours.	1 No knowledge 2 3 Some knowledge 4 5 Know almost everything	1 Much less than I have now 2 3 As much as I have now 4 5 Much more than I have now
6	This year's plans for your work unit.	1 No knowledge 2 3 Some knowledge 4 5 Know almost everything	1 Much less than I have now 2 3 As much as I have now 4 5 Much more than I have now
7	What other departments think of the work of your unit.	1 No knowledge 2 3 Some knowledge 4 5 Know almost everything	1 Much less than I have now 2 3 As much as I have now 4 5 Much more than I have now
8	What patients think of the work of your unit.	1 No knowledge 2 3 Some knowledge 4 5 Know almost everything	1 Much less than I have now 2 3 As much as I have now 4 5 Much more than I have now
D- Coaching and Support Here is a list of different sorts of coaching and support that your boss might provide. For each item please answer the following two questions by circling the appropriate number: 1. How much knowledge about this item do you have? 2. How much knowledge about this item do you need to get your job done?			
		1. How much of this do you get from your immediate boss?	2. How much of this would you like to get from your immediate boss?
1	Specific information about the things you do well.	1 None 2 3 Some 4 5 A lot	1 Much less than I have now 2 3 As much as I have now 4 5 Much more than I have now
2	Specific comments about things you could improve.	1 None 2 3 Some 4 5 A lot	1 Much less than I have now 2 3 As much as I have now 4 5 Much more than I have now
3	Helpful hints or	1 None	1 Much less than I have now

Appendix B (continued)

Conditions of Work Effectiveness

	problem-solving advice.	2 3 Some 4 5 A lot	2 3 As much as I have now 4 5 Much more than I have now
4	Information or suggestions about the job possibilities open to you.	1 None 2 3 Some 4 5 A lot	1 Much less than I have now 2 3 As much as I have now 4 5 Much more than I have now
5	Discussion of your further training or education.	1 None 2 3 Some 4 5 A lot	1 Much less than I have now 2 3 As much as I have now 4 5 Much more than I have now
6	Help when there's a work crisis.	1 None 2 3 Some 4 5 A lot	1 Much less than I have now 2 3 As much as I have now 4 5 Much more than I have now
7	Help in gaining access to people who can help to get the job done.	1 None 2 3 Some 4 5 A lot	1 Much less than I have now 2 3 As much as I have now 4 5 Much more than I have now
8	Help in getting materials and supplies needed to get the job done.	1 None 2 3 Some 4 5 A lot	1 Much less than I have now 2 3 As much as I have now 4 5 Much more than I have now
-	Comments:		

Appendix C

This tool is used with the "Week 12" and "Last Week of Program" evaluation packets.

Group Cohesion

The following six items ask for your opinion about the colleague group (nursing staff) with whom you work:

For each item below, select the appropriate response.

Productivity	I believe the productivity of this group is:	1 Very much above average 2 Above average 3 Slightly above average 4 Average 5 Slightly below average 6 Below average 7 Very much below average
Efficiency	I believe the efficiency of this group is:	1 Very much above average 2 Above average 3 Slightly above average 4 Average 5 Slightly below average 6 Below average 7 Very much below average
Morale	I believe the morale of this group is:	1 Very much above average 2 Above average 3 Slightly above average 4 Average 5 Slightly below average 6 Below average 7 Very much below average
Belongingness	I believe the feelings of belongingness in this group are:	1 Very much above average 2 Above average 3 Slightly above average 4 Average 5 Slightly below average 6 Below average 7 Very much below average
Personal Feelings	In terms of personal feelings about this group, I feel:	1 Like it very much 2 Like it 3 Like it slightly 4 Neither particularly like or dislike it 5 Dislike it slightly 6 Dislike it 7 Dislike it very much
Working Together	In terms of working together on this unit with this group, I believe:	1 Like it very much 2 Like it 3 Like it slightly 4 Neither particularly like or dislike it 5 Dislike it slightly 6 Dislike it
		7 Dislike it very much

Appendix D

This tool is used with the "Last Week of Program" evaluation packet.

Turnover Intention

For each item below, select the appropriate response.

		Not at all					I surely do
1	Do you plan to leave this facility within the next year?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<div>2- Comments:</div> <div></div>							

Appendix E

UNIVERSITY OF ILLINOIS AT CHICAGO

Office for the Protection of Research Subjects (OPRS)
Office of the Vice Chancellor for Research (MC 672)
203 Administrative Office Building
1737 West Polk Street
Chicago, Illinois 60612-7227

Notice of Determination of Human Subject Research

April 16, 2012

*20120348-
67236-1*

20120348-67236-1

Gina Reid Tinio, MS, MPH
Nursing Administrative Studies
1371 Northgate Drive
Bartlett, IL 60103
Phone: (630) 213-6476 / Fax: (630) 933-6685

RE: **Protocol # 2012-0348**
Outcomes of Mentoring Interventions for new Graduate Nurses

Dear Gina Reid Tinio:

☒ The UIC Office for the Protection of Research Subjects received your "Determination of Whether an Activity Represents Human Subjects Research" application, and has determined that this activity **DOES NOT** meet the definition of **human subject research** as defined by 45 CFR 46.102(f).

You may conduct your activity without further submission to the IRB.

If this activity is used in conjunction with any other research involving human subjects or if it is modified in any way, it must be re-reviewed by OPRS staff.

☐ The UIC Office for the Protection of Research Subjects received your "Determination of Whether an Activity Represents Human Subjects Research" application, and has determined that this activity **DOES** meet the definition of **human subject research** as defined by 45 CFR 46.102(f).

You must submit either a Claim of Exemption or an Initial Review Application for IRB review. Your research cannot be conducted until written notice of an exemption determination or IRB approval has been granted.

For guidance on submitting your application, please refer to the guidance at:
<http://tiger.uic.edu/depts/ovcr/research/protocolreview/irb/index.shtml>

Phone: 312-996-1711

<http://www.uic.edu/depts/ovcr/oprs/>

Fax: 312-413-2929

VITA

Gina Reid Tinio

Education

2012	Ph.D., College of Nursing, University of Illinois at Chicago (UIC)
2003	M.S., University of Illinois at Chicago (Nursing)
1993	M.P.H., Benedictine University (Community Health Education)
1988	B.S.N., Edgewood College (Nursing)

Professional Experience

2001- present	<p>Director, Professional Development and Nursing Research, Cadence Health, Winfield, IL</p> <ul style="list-style-type: none">• Overall accountability for the planning, coordination, and management of staff and patient education activities across the system; oversee nursing research, evidence based practice and clinical information systems activity; coordinate student observation and clinical activities throughout the organization ; member IRB• Serving as Magnet Project Director. Successfully achieved initial Magnet designation in September 2010 by engaging leadership, peers and staff. Completed gap analysis, developed overall structure to close gaps, led writing team.• Redesigned nursing orientation program to increase nurse retention within the first year of employment, improve nursing staff satisfaction and, improve demonstrated clinical competency.
1993-01	<p>Director of Operations, Home Health and Hospice, Elmhurst Memorial Healthcare, Elmhurst, IL</p> <ul style="list-style-type: none">• Operationalized the philosophy, strategic priorities, policies and procedures of the agency. Assumed 24- hour accountability for management and delivery of patient care• Served as a local and national home care operations presenter and author
1990-93	<p>Home Care Coordinator and Community Liaison, Elmhurst Memorial Healthcare, Elmhurst, IL</p>
1988-90	<p>Staff Nurse, Westlake Community Hospital, Surgical Step-Down Unit, Melrose Park, IL</p>

Teaching Experience

- 2008 Teaching Assistant for Dr. Sheryl Stogis, University of Illinois, Chicago, IL
 1990 Adjunct Faculty, Certified Nursing Assistant Program, Triton College, River Grove, IL

Research Activity

- 2011-present Multi-Institutional, Randomized Study of the Transition to Practice (TTP) Model on Patient Safety and Quality Outcomes in the Hospital Setting- Site PI- June 2011- present
 2011-present Mixed Methods Approach to the Analysis of Ethical Distress in Nurses- Co-Investigator- June 2011- present
 2010-present Discharge teaching on warfarin therapy: a comparison of patient perceptions of the effectiveness of computer based emmi education and traditional nurse teaching about warfarin therapy- Co-Investigator-September 2010-present

Publications

- 2000 Reid, G. Partnering with physicians: A win-win strategy. *Journal of Home Health Care Management and Practice*, 12 (4), 1-8.
 1998 Reid, G. Best practices in infection control. *Success in Home Care*, 2 (3).
 1997 Reid, G. Transitioning nurses from hospital to home. *Journal of Home Health care Management and Practice*, 9 (4), 22-30.
 1997 Malarick, J and Reid, G. Infusion Therapy Methods. Mosby's Home Health Client Teaching Guides: Rx for Teaching. Martin, K., ed. St. Louis, MO.
 1995 Malarick, J. and Reid, G. Home infusion therapy teaching record. *Home Health Focus*, 1 (11), 6-7.

Invited Presentations

- 2012 One on One Versus Group Mentoring- Does It Really Matter?, Eighth Annual Versant Client Conference, San Antonio, Texas
 2011 Engaging Staff in Organizational Cost Savings: A Win-Win Strategy, American Organization of Nurse Executives Annual Conference, Boston, MA
 2010 Key Leadership Strategies for Magnet Designation Success Under the New Magnet Model, Chicagoland Magnet Consortium, Winfield, Illinois
 2008 Help Staff Get "HiP" on Controlling Costs: A Unique Employee Incentive Plan Nursing Management Congress, May 2008, Chicago, Illinois

Awards

- 2010 Tom Williams Award for Nursing Leadership, Cadence Health, Winfield, IL
 2000 Presidential Award for Management Excellence, Elmhurst Memorial Healthcare, Elmhurst, IL
 1997 Laura M. Schaub Memorial Nursing Scholarship Winner, Elmhurst Hospital, Elmhurst, IL

Licensure & Certification

1988-present	Registered Nurse, State of Illinois
2006-present	Board Certified in Nursing Professional Development (ANCC)

Professional Affiliations

2012	Elected chair of ANCC Content Expert Panel (CEP) for Nursing Professional Development
2011	Appointed Chair of ANPD Best Practice Committee
2009	Appointed as ANCC Content Expert Panel Member for Nursing Staff Development
2007	Chosen to serve as one of seven content experts by ANCC to perform logical job analysis for Nursing Professional Development Examination
2002-present	Association of Nursing Professional Development
2007-present	Illinois Organization of Nurse Leaders