The Relationship Between RN Job Enjoyment and Intent to Stay: A Unit-Level Analysis

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Abstract

Job satisfaction is crucial for RN retention. Yet, little is known about the relationship between RN job enjoyment and intent to stay at the patient care unit level. This study examined the relationship between RN workgroup job enjoyment and RN workgroup intent to stay on five types of acute care hospital units. A descriptive, correlational design was employed using 2011 data from the National Database of Nursing Quality Indicators® (NDNQI®) RN survey. Two-level linear regression analyses were performed at the unit level. The sample consisted of 5,062 units (116,563 RNs; 723 hospitals). Included unit types were Critical Care, Step-Down, Medical, Surgical, and Medical-Surgical. Controlling for unit (nurse staffing, RN education, RN unit tenure) and hospital (Magnet status, bed size, teaching status, geographical location) characteristics, RN workgroup job enjoyment was positively associated with RN workgroup intent to stay across all five unit types. Findings from this study provide evidence that RN workgroup job enjoyment contributes significantly to RN workgroup intent to stay. Nursing administrators and managers wishing to achieve higher RN retention rates should develop strategies to enhance RN job enjoyment on a unit-by-unit basis.
Introduction

Registered Nurses (RNs) are essential care providers in acute care settings. Over the recent decades, recruitment and retention of qualified RNs have been challenging. The nursing shortage problem has been addressed in the literature, especially in regard to increased cost and patient care quality (Hayes et al., 2012). Research has demonstrated that a high nurse turnover rate is significantly associated with poor patient outcomes related to events including more frequent medication errors and patient falls (Bae, Mark, & Fried, 2010; O'Brien-Pallas, Murphy, Shamian, Li, & Hayes, 2010). Among efforts to develop nurse retention strategies, researchers have made investigations to identify factors related to nurse turnover. Findings from a systematic review of nurse turnover studies revealed that job satisfaction is an important factor influencing nurse turnover (Hayes et al., 2012). Due to the limitation of data availability for actual nurse turnover, it should be noted that many of these turnover studies use intent to leave or stay as a proxy measure of nurse turnover. However, the factors related to intent to leave may not be the same as those related to intent to stay. Relatively few studies to date have been conducted to examine factors related to intent to stay. Moreover, none of these limited studies have been conducted at the unit level.

The nursing unit is the operational level in which RNs provide direct care to patients. In recent years, unit-specific interventions and strategies have been recommended to improve patient care quality and safety. It would be beneficial to examine factors that may affect nurses’ intentions to remain in their current positions at the unit level. Therefore, the purpose of this study was to examine the relationship of RNs’ job enjoyment to their intention to stay in their current position at the unit level. Job
satisfaction is a multifaceted concept and can be categorized into two dimensions: cognitive and affective (Schleicher, Watt, & Greguras, 2004). The cognitive dimension of job satisfaction refers to the individual’s views of job conditions. The affective dimension of job satisfaction refers to the individual’s feeling of their job or job enjoyment. This study specifically examines the direct relationship of unit-level affective job satisfaction (RN workgroup job enjoyment) to unit-level intent to stay on critical care, step-down, medical, surgical, and combined medical-surgical units (RN workgroup intent to stay), while adjusting for other unit (nurse staffing, RN education, and RN unit tenure) and hospital (hospital size, teaching status, Magnet status, and geographical location) characteristics. We hypothesized that RN workgroup job enjoyment would have a positive relationship with RN workgroup intent to stay.

**Literature Review**

**Factors Associated with Intent to Stay**

A general approach for the literature review of this study is to evaluate studies examining factors of intent to stay as opposed to turnover or intent to leave. Relatively few studies on nurse intent to stay have been located in the literature. A variety of factors related to nurse intention to stay have been identified, including job satisfaction, supervisor support, autonomy, work environment, and demographics. Among factors identified in previous studies, job satisfaction has repeatedly been found to be related to RN intent to stay (Cowden & Cummings, 2012).

Many studies have found that RN job satisfaction is a strong predictor of RN intent to stay. A study that evaluated the relationship between nurse manager leadership and critical care nurses’ intent to stay found that high job satisfaction was the most significant
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contributor to high intent to stay at one’s position (Boyle, Bott, Hansen, Woods & Taunton, 1999). This study used a sample of 255 staff nurses employed in intensive care units at 4 urban hospitals (Boyle et al., 1999). Gregory, Way, LeFort, Barrett and Parfrey (2007) also found that RN job satisfaction was positively associated with RN intent to stay. In their study, trust and satisfaction indirectly mediated the effects of organizational culture on intent to stay (Gregory et al., 2007). Applebaum, Fowler, Fiedler, Osinubi, and Robson (2010) determined that there is a direct relationship between job satisfaction and turnover intention. They issued a 36-question survey to medical-surgical nurses addressing their work environment and found that environmental factors, such as perceived stress and lighting, can negatively influence nurse satisfaction, and ultimately RN intent to stay (Applebaum et al., 2010). McCarthy, Tyrrell, and Lehan (2007) identified job satisfaction to be the most accurate predictor of intent to stay in their study. They distributed questionnaires to RNs at 10 hospitals throughout Ireland in order to investigate RNs’ intent to stay or leave their current positions (McCarthy, Tyrrell & Lehan, 2007). Additionally, Tourangeau and Cranley (2006) found that as overall RN job satisfaction increased, RN intent to stay also increased. Their study was completed using the Ontario Nurse Survey (Tourangeau & Cranley, 2006).

Studies on nurse intent to stay have been conducted using data from individual RNs working in acute care hospital settings. At the individual RN level, higher RN job satisfaction was related to higher RN intent to say their job (Boyle et al., 1999; Tourangeau & Cranley, 2006). In these studies, RN job satisfaction has been measured as overall job satisfaction using either a single question or a multiple-item questionnaire that reflects various aspects of work. No studies focusing on affective job satisfaction (i.e., job
enjoyment) were found in the literature. Moreover, none of the studies were conducted at the unit level.

RN job tenure and RN education level were related to intent to stay. Higher job tenure was related to higher RN intent to stay. For example, Tourangeau and Cranley (2006) found that the more years nurses reported being employed in their positions, the more likely they were to remain employed in that position until retirement. However, in this study, baccalaureate-prepared nurses were less likely to report that they would stay employed in their current positions. Shields and Ward (2001) also found that nurses with higher levels of education were less likely to remain employed at their current institution. Furthermore, in a study using data from 1,993 newly licensed RNs in 34 states, newly licensed RNs with a baccalaureate degree were found to be less likely to stay at their current positions than those with lower levels of education (Kovner, Brewer, Greene & Fairchild, 2009).

Hospital characteristics, such as hospital size, teaching status, and nurse staffing level, are important factors that have been examined in nurse turnover and intent to leave studies (Heinen et al., 2013; Staggs & Dunton, 2012; Stone et al., 2007). However, few studies have been found in which researchers investigated their associations with nurse intent to stay. In a study examining the differences between pediatric RNs’ intent to stay in Magnet and Non-Magnet pediatric hospitals, nurses who work in Magnet hospitals were found to be more likely to stay with their current position (Lacey, Teasley & Cox, 2009). Little is known about how other hospital characteristics such as hospital size, teaching status, geographical location, and nurse staffing level, affect nurses’ intent to stay with their current positions.
Conceptual Model of the Study

Based on findings from previous studies and available data from the National Database of Nursing Quality Indicators® (NDNQI®), the model tested in this study was developed to test the direct relationship between RN workgroup job enjoyment and RN workgroup intent to stay, while adjusting for other unit and hospital characteristics. In this model, unit characteristics represent unit workforce characteristics and include nurse staffing, RN education level, and RN unit tenure. Hospital characteristics include hospital size, teaching status, Magnet status and geographical location.

Methods

Data Sources and Sample

A descriptive, correlational design was used for this study. Unit-level data from 2011 on nurse staffing and hospital characteristics (hospital size, Magnet status, teaching status, and geographical location) were obtained from the NDNQI® database. These data were linked with the NDNQI® RN survey database to obtain 2011 data on RN job enjoyment, education, and unit tenure. The NDNQI® RN survey was conducted annually to gather information on job satisfaction, work contextual items (e.g., shift and overtime), and demographic characteristics from RNs employed in participating NDNQI® hospitals. Eligible RNs for the survey must spend at least 50% of their time providing direct patient care and must have worked in their current units for at least 3 months. In 2011, over 326,000 RNs participated in the survey, with a response rate of 69%.

The unit of analysis was the nursing unit, not the individual RN. The final analytical sample consisted of 5,062 adult care units in 723 hospitals. The sample unit was restricted
to five unit types: critical care (1,224 units), step-down (829 units), medical (969 units), surgical (751 units), and combined medical-surgical (1,289 units).

In the sample units, 116,563 RN respondents were included. The average age of the RNs was 41, and the average tenure on the current unit was 6.82 years. More than half of the RNs (57.52%) had a bachelor’s or higher degree in nursing. About one-third of sample hospitals were Magnet hospitals, and had more than 300 staffed beds. Almost half of all sample hospitals were teaching hospitals. The geographical location of sample hospitals, as classified by four census regions, were as follows: West (15.08%), Midwest (26.56%), South (37.62%), and Northeast (20.75%).

**Measures**

RN workgroup intent to stay was measured using a single item from the NDNQI® RN survey: “what are your job plans for the next year?” The six response options were combined into two categories: stay in my current position = 1 vs. all others = 0. For this study, the percentage of RNs in each unit who intended to stay in their current position for the next year was computed.

RN workgroup job satisfaction was measured using the NDNQI-Adapted Job Enjoyment (JE) scale (Taunton et al., 2004). The JE scale consists of seven items to measure overall affective job satisfaction at the unit level. The items are scored using a 6-point Likert-type scale: 1 (strongly disagree) to 6 (strongly agree). For this study, the mean JE score for each RN was computed and then averaged across the RNs in each unit to obtain a unit-level JE score. The potential mean scores range from one to six and higher scores indicate higher RN workgroup job enjoyment. Reliability and validity of the JE scale have
been established at both the individual RN and unit level (Boyle et al., 2006; Taunton et al., 2004).

Other variables include unit (nurse staffing, RN education, and RN unit tenure) and hospital characteristics (hospital size, teaching status, Magnet status, and geographical location). Unit-level nurse staffing was measured as the average nursing hours per patient day (HPPD) for the year 2011 and included RN HPPD and non-RN (licensed practical nurse and unlicensed assistive personal) HPPD. RN education was measured as the percentage of RNs with a bachelor’s degree or higher on the unit. RN unit tenure was measured as the average number of years RNs worked on the current unit.

Four hospital characteristics were included: hospital size (<300 = 0 and ≥300 = 1), teaching status (teaching hospital = 1 and non-teaching hospital = 0), Magnet status (Magnet hospital = 1 and non-Magnet hospital = 0), and four census divisions as a measure of geographical location of hospitals (West, Midwest, South, and Northeast).

Analysis

Because of the nature of hierarchical data, multilevel modeling is a suitable statistical method to adjust for the clustering of units within hospitals. Two-level linear regression analyses were performed to examine the unit-level relationship between RN job enjoyment and intent to stay in their current jobs, while accounting for other variables (nurse staffing, RN education, RN unit tenure, and hospital characteristics). The model was tested separately for each of the five unit types. All data analyses were performed with IBM SPSS Statistics 20.
Results

Two-level linear regression models were estimated to examine the relationship of RN workgroup job enjoyment to RN workgroup intent to stay, adjusting for unit and hospital characteristics. Table 1 presents means and standard deviations for RN workgroup job satisfaction and RN workgroup intent to stay. Moderate unit RN workgroup job satisfaction was reported, ranging from an average of 3.63 for combined medical-surgical units to 3.73 for critical care units. RN workgroup intent to stay was highest on critical care units (77.60%) and lowest on combined medical-surgical units (70.99%). Table 2 presents the results from the five models tested separately by five types of units (critical, step-down, medical, surgical, and combined medical-surgical units).

Table 1 Registered Nurse (RN) Workgroup Job Satisfaction and Intent to Stay by Unit Type

<table>
<thead>
<tr>
<th>Unit type</th>
<th>N</th>
<th>M (SD)</th>
<th>M (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical care</td>
<td>1224</td>
<td>3.73 (.54)</td>
<td>77.60 (13.85)</td>
</tr>
<tr>
<td>Step-down</td>
<td>829</td>
<td>3.64 (.54)</td>
<td>70.99 (16.36)</td>
</tr>
<tr>
<td>Medical</td>
<td>969</td>
<td>3.65 (.56)</td>
<td>72.06 (17.00)</td>
</tr>
<tr>
<td>Surgical</td>
<td>751</td>
<td>3.69 (.53)</td>
<td>75.05 (15.41)</td>
</tr>
<tr>
<td>Med-Surg</td>
<td>1289</td>
<td>3.63 (.53)</td>
<td>73.21 (15.92)</td>
</tr>
</tbody>
</table>

Controlling for unit (nurse staffing, RN education, and RN unit tenure) and hospital (hospital size, teaching status, Magnet status, and geographical location) characteristics, RN workgroup job enjoyment was positively associated with RN workgroup intent to stay across all five unit types. Among unit characteristics included in the model, RN workgroup
intent to stay was positively associated with RN unit tenure, and negatively associated with RN education level across all unit types. However, RN HPPD and Non-RN HPPD were not significantly associated with RN workgroup intent to stay except that Non-RN HPPD in Medical-Surgical units was negatively associated with RN workgroup intent to stay. Among hospital characteristics (Magnet status, hospital size, teaching status and geographical location) examined in the model, hospital Magnet status and geographical location were found to be significantly related to RN workgroup intent to stay. Only for surgical units, Magnet status was significantly and negatively related to RN workgroup intent to stay. For all unit types except surgical units, RN workgroup intent to stay was higher in the Northeast than West among four census regions.

### Table 2 Results of RN Workgroup Intent to Stay Models by Unit Type

<table>
<thead>
<tr>
<th>Variable</th>
<th>Critical (n=1,224)</th>
<th>Stepdown (n=829)</th>
<th>Medical (n=969)</th>
<th>Surgical (n=751)</th>
<th>Med-Surg (n=1,289)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workgroup Job enjoyment</td>
<td>17.31**</td>
<td>20.46**</td>
<td>19.06**</td>
<td>19.58*</td>
<td>18.57**</td>
</tr>
<tr>
<td>RN HPPD</td>
<td>.14</td>
<td>-.06</td>
<td>.59</td>
<td>-.28</td>
<td>.41</td>
</tr>
<tr>
<td>Non-RN HPPD</td>
<td>-.11</td>
<td>.06</td>
<td>-.12</td>
<td>-.44</td>
<td>-.79*</td>
</tr>
<tr>
<td>RN education level</td>
<td>-.10**</td>
<td>-.09**</td>
<td>-.11**</td>
<td>-.11**</td>
<td>-.08**</td>
</tr>
<tr>
<td>RN unit tenure</td>
<td>.70**</td>
<td>1.60**</td>
<td>1.40**</td>
<td>.95**</td>
<td>1.54**</td>
</tr>
<tr>
<td>Magnet</td>
<td>.08</td>
<td>-1.44</td>
<td>-.97</td>
<td>-2.25*</td>
<td>-1.05</td>
</tr>
<tr>
<td>Bed size</td>
<td>.48</td>
<td>.39</td>
<td>-1.34</td>
<td>1.00</td>
<td>-.14</td>
</tr>
<tr>
<td>Teaching</td>
<td>-.64</td>
<td>-.28</td>
<td>-.84</td>
<td>-.05</td>
<td>-1.01</td>
</tr>
<tr>
<td>Geographic Location</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>West</td>
<td>Referent</td>
<td>Referent</td>
<td>Referent</td>
<td>Referent</td>
<td>Referent</td>
</tr>
<tr>
<td>Midwest</td>
<td>1.05</td>
<td>2.71</td>
<td>2.41</td>
<td>1.36</td>
<td>4.59**</td>
</tr>
<tr>
<td>South</td>
<td>.87</td>
<td>1.05</td>
<td>.87</td>
<td>-.76</td>
<td>2.72*</td>
</tr>
<tr>
<td>Northeast</td>
<td>3.97*</td>
<td>4.33*</td>
<td>4.03</td>
<td>-.13</td>
<td>4.28*</td>
</tr>
</tbody>
</table>

**p<0.001  *p<.05
Discussion

This study examined the direct relationship between RN workgroup job enjoyment and RN workgroup intent to stay. Results showed RN workgroup job enjoyment was the strongest factor affecting RN workgroup intent to stay. The retention of skilled nurses would be beneficial not only for the nurses themselves, but also for hospitals and patients (Hayhurst, Saylor & Stuenkel, 2004). Thus, efforts must be made to improve RN job satisfaction on a unit-by-unit basis. A large growing body of studies found that a supportive nurse work environment is one of the most important factors of nurse job satisfaction (Hayes et al., 2012). Nurse administrators and managers need to develop strategies for improving nurse work environments that ultimately affect nurses’ job satisfaction as well as intent to stay at their current positions. More importantly, all of the strategies to improve RN job enjoyment and intent to say should be tailored based on the nature of specific units.

The impact of nursing leadership and management on better nurse outcomes, such as nurse job satisfaction and intent to stay has been well documented in the literature. Findings from a systematic review indicated that nursing leadership significantly affects staff nurses’ intent to stay (Cowden, Cummings, & Profetto-Mcgrath, 2011). In this systematic review, while transformational or relational leadership styles have been found to related to greater intent to stay, task-focused leadership styles have been found to be related to lower intent to stay. Boyle et al. (1999) found that nurses who express high intent to stay at their current position also express high perceived influence of the nurse manager in regard to how staff perform their job and solve problems; high perceived ability of the manager to control others through the use of reward and punishment; and
high opportunities for promotion. Unit nurse managers should be aware of the importance of their leadership role to improve RNs’ retention at their current job. Unit nurse managers can make a significant contribution to RN job enjoyment as well as intent to stay by listening to nurses’ feelings about their job on specific patient care unit types and identifying what factors make them choose to stay in their positions. Furthermore, nursing administrators should develop strategies to select effective nurse managers and provide better training and support for nurse managers to develop their leadership skills. Despite the importance of nursing leadership’s role, the relationship between nursing leadership and nurse workgroup intent to stay was not examined in this study because those data were not available. Further studies are needed to investigate such relationship.

Moreover, the relationship between Magnet status and RN workgroup intent to stay was found in an unexpected direction. RN workgroup intent to stay was lower in Magnet than non-Magnet hospitals, although this significant relationship was found in only surgical units. This is not consistent with outcomes in previous studies that found nurses working in Magnet hospitals were more likely to stay their current position (Lacey, Teasley & Cox, 2009). A growing body of literature has demonstrated that Magnet-recognized hospitals have better nurse and patient outcomes, including higher nurse job satisfaction, lower turnover, and lower mortality rates (Drenkard, 2010). Further research is needed to confirm a positive relationship between Magnet status and RN intent to stay at the unit level.

Limitations

This study has several limitations. Study findings may not be generalizable to all United States acute care hospital units because the sample units were restricted to only five
unit types. Moreover, although the NDNQI® database contains data from a nationwide sample of acute care hospitals, larger institutions tend to be over-represented in the NDNQI® database. In addition, other factors influencing RN workgroup intent to stay, such as supervisor support, autonomy, and workgroup cohesion, were not included in the tested model for this study. Further research is needed to explore possible factors that affect RN intent to stay and develop the comprehensive model of RN workgroup intent to stay.

Conclusion

This study is the first to examine the relationship between RN job enjoyment and intent to stay at the unit level. Findings from this study provide evidence to support the relationship between RN job satisfaction and intent to stay at the patient care unit level. Nursing administrators and managers striving for higher RN retention rates should focus on developing and implementing strategies to increase RN job enjoyment on a unit by unit basis.
References


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Lacey, S., Teasley, S., & Cox, K. (2009). Differences between pediatric registered nurses' perception of organizational support, intent to stay, workload, and overall satisfaction, and years employed as a nurse in magnet and non-magnet pediatric hospitals: implications for administrators. *Nursing Administration Quarterly, 33*(1), 6-13. doi:10.1097/01.NAQ.0000343342.24925.0c


