



Predictor of Turnover Intention of Registered Nurses: Job Satisfaction or Work Engagement?

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Abstract

Both employee job satisfaction (JS) and employee work engagement (WE) have been examined as possible predictors of employees' intention to voluntarily leave a specific job or company, known as turnover intention (TI). While the body of knowledge has grown concerning the nature of TI, there remains the unsettled question of which of the two concepts most accurately predicates TI. The high turnover rate of registered nurses (RNs) in hospitals in the United States presented an opportunity to examine if JS and WE predict, and to what degree, among RNs. For this quantitative correlational research probability sampling was used to identify 155 participants, all full-time RNs with 2 or more years of employment in New York hospitals. Data, obtained from surveys, were analyzed via multiple linear regression. The results revealed that only JS predicted TI among the nurses sampled, $F(5,154) = 12.008, p < .001, R^2 = .287$. The findings indicate that leaders of healthcare organizations, might lower nurse TI by focusing on improving JS. Specifically, TI may be lower by addressing the issues identified from regular JS surveys, and by a greater emphasis on creating a more satisfying workplace. A more stable RN workforce could reduce healthcare disruptions in communities.

Keywords: *turnover intention; job satisfaction; work engagement; nurses*

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Introduction

Both employee job satisfaction (JS) and employee work engagement (WE) have been examined as possible predictors of employees' intention to voluntarily leave a specific job or company, known as turnover intention (TI). While the body of knowledge has grown concerning that nature of TI, the questions of whether these two concepts predicts TI and which most accurately predicates TI remained unsettled. Some researchers (Alfes et al., 2016; Blomme et al., 2015; Chang et al., 2015; Coxen et al., 2016; Gülbahar, 2017; Koçak, 2016; Mishra & Kumar, 2017; Morrison & Macky, 2015; Saks, 2006; Seifert et al., 2016; Schaufeli et al., 2002; Ugwu et al., 2014) found that a higher degree of job engagement correlates with emotions, attitudes or behavior intuitively associated with lower TI. However, other researchers (Andresen et al., 2016; Asegid et al., 2014; Chen & Taylor, 2016; Dusek et al., 2014; Linh et al., 2016; Maqbali, 2015; Mathieu et al., 2016; Mazurenko et al., 2015; Mobley, 1982; Semachew et al., 2017; Spector, 1997) found that an employee's degree of JS, to varying degrees, predicted turnover intent. Thus, there was a gap in the body of knowledge. The unsettled research was this: What is the relationship between WE, JS, and nurse TI?

Registered nurses (RNs) represent the largest occupational group in hospitals and serve a critical role in delivering high-quality care to patients (Kumari & De Alwis, 2015). A significant number of RNs are approaching retirement age, and at the same time, the needs for RNs are increasing in all parts of the health care system due to the aging U.S. population (Jones et al., 2017; Snively, 2016). For hospital leaders and administrators facing an RN shortage, high TI among RNs is a significant concern (Dempsey & Reilly, 2016; Ostermeier & Camp, 2016). Thus, hospital leaders and administrators are seeking to develop strategies to identify and reduce RN TI (Everhart et al., 2013; Roulin et al., 2014). In this article, we present research that addressed both a gap in the body of knowledge, and the real business problem of predicting TI among RNs.

Summary of the Literature

First, theory of reasoned action (TRA) and seminal and recent theories of WE, JS, and TI were reviewed. Next was an extensive review of previous research concerning outcomes of WE, especially as it relates to TI. Then there was an extensive review of previous research concerning outcomes of WE and JS, especially as it relates to TI. That was followed by a review of research concerning TI, especially potential indicators. Then previous research on the working conditions and turnover of RNs was reviewed. Relevant publications on RN workload, stress, and burnout were also reviewed. Also considered was the financial and patient care effects on hospitals of high RN turnover. Then various instruments for measuring employee WE, JS, and TI were reviewed, assessed, and selected.

Research Question

Research Question: Does WE and JS predict nurse TI at hospitals?

Hypotheses

Hypothesis 01: WE is not a statistically significant predictor of nurse TI at hospitals.

Hypothesis a1: WE is a statistically significant predictor of nurse TI at hospitals.

Hypothesis 02: JS is not a statistically significant predictor of nurse TI at hospitals.

Hypothesis a2: JS is a statistically significant predictor of nurse TI at hospitals.

Method

Purpose

The purpose of this quantitative, correlational research was to examine the relationships between WE, JS, and nurse TI in hospitals. The independent variables were WE and JS, and the dependent variable was nurse TI. The G*Power 3.19 software was used to calculate the precise sample size needed for conclusive research results. With the power and strength at 0.99, a median effect size equal to $f^2 = .15$, and an alpha level of $\alpha = .05$, the sample size required was 146 participants. For this research 155 participants were randomly recruited, which exceeded the power value of .99 and the requirement of 146 participants. Fishbein and Ajzen's (1975) TRA, was the theoretical lens through which the findings were interrupted. Fishbein and Ajzen posited that an individual's beliefs transform into attitudes, which transforms into behavior and behavioral intentions.

Data Collection and Analysis

A 48-question anonymous, paper-based survey was used to collect data from 155 RNs employed in hospitals. The survey consisted of three survey instruments. The Work and Well-Being Survey (UWES-9) was used to measure a participant's degree of WE. It consisted of nine questions, using a 6-point Likert-type scale. WE as measured by the UWES-9 consists of three subscales: (a) Dedication, (b) Absorption, and (c) Vigor. The Job Satisfaction Survey (JSS) consists of 36 questions, using a 6-point Likert-type scale. JS, as measured by the JSS survey instrument consists of nine primary job-related constructs. The nine job-related constructs were (a) pay, (b) promotion, (c) supervision, (d) fringe benefits, (e) contingent benefits, (f) operating procedures, (g) coworkers, (h) nature of work, and (i) communication. The Turnover Intention Survey was used to measure a participant's degree of TI using a 5-point Likert-type scale. The Turnover Intention Survey consists of parts: (a) "I often think about quitting my present job"; (b) "I will probably look for a new job in the next year"; and (c) "as soon as possible, I will leave the organization."

Data were analyzed using multiple regression. Bootstrapping, using 1,000 samples and the using 95% confidence intervals (CIs), minimized the possible influence of any violations of the statistical assumptions. The Cronbach's alpha coefficient of each survey instrument indicated acceptable levels of internal reliability ($\alpha > .80$; Field, 2013). A bivariate scatterplot indicated that the data met the assumption of linearity. Using the Durbin-Watson statistic, the data met the independence of observations assumption. A Pearson correlation test between JS and WE indicated that the data met the assumption of the lack of multicollinearity. Boxplots indicated no univariate outliers. Mahalanobis distance tests indicated no multivariate outliers. Frequency histograms indicated acceptable levels of normality. The data did not meet the assumption of homoscedasticity. This was addressed by bootstrapping, using 1,000 samples to minimize the possible influence of any violations of the statistical assumptions.

Findings

Demographic Frequencies and Percentages

Table 1 displays the frequency and percentages from the survey results. The primary sample was 93.5% female, and about two-thirds of the sample (69.7%) was Caucasian. Years of experience ranged from 2 to 45 ($M = 18.38$, $SD = 13.48$). Years of tenure ranged from 2 to 40 years ($M = 10.31$, $SD = 9.67$). The ages of the respondents ranged from 23 to 69 years of age ($M = 43.95$, $SD = 12.69$).

Table 1. Frequency Counts for Gender and Race/Ethnicity

Variable	Category	N	%
Gender	Female	145	93.5
	Male	10	6.5
Race/Ethnicity	African American	23	14.8
	Caucasian	108	69.7
	Hispanic	10	6.6
	Asian/Pacific Islander	9	5.7
	Other	5	3.2
Experience ^a	2–9 years	56	36.1
	10–19 years	34	21.9
	20–29 years	24	15.5
	30–45 years	41	26.5
Tenure ^b	2–4 years	96	61.9
	5–9 years	32	20.6
	10–19 years	17	11.0
	20–40 years	10	6.5
Age ^c	23–29 years	21	13.5
	30–39 years	43	27.7
	40–49 years	33	21.3
	50–69 years	58	37.5

Note. $N = 155$.

^a Experience: $M = 18.38$, $SD = 13.48$. ^b Tenure: $M = 10.31$, $SD = 9.67$. ^c Age: $M = 43.95$, $SD = 12.69$.

Descriptive Statistics for Independent Variables

WE consisted of three subscales: Dedication, Absorption, and Vigor. JS consisted of nine subscales: Pay, Promotion, Supervision, Fringe Benefits, Contingent Rewards, Operating Conditions, Coworkers, Nature of the Work, and Communication. The dependent study variable was TI. Based on a 6-point Likert-type scale, the mean score for WE was 4.23, indicating that the participants showed an average level for WE. The mean score for JS was 4.01, again using a 6-point Likert-type scale, indicating that more of the participants were satisfied than dissatisfied with their employment. Following Spector's (1994) scoring of the JSS, the mean score for TI was 2.08, this time using a 5-point Likert-type scale, indicating that more participants had a low level of TI. Following Yin-Fah et al.'s (2010) interpretation of high and low scores TI scores, the bootstrapped 95% CI (M) represented the range for the mean of each of the study variables. Table 2 displays the descriptive statistics.

Table 2. Descriptive Statistics for Study Variables

Variable	<i>M</i>	<i>SD</i>	Bootstrapped 95% CI (<i>M</i>)
Work engagement ^a	4.23	0.87	[4.09, 4.35]
Dedication	4.66	0.95	[4.51, 4.80]
Absorption	4.13	0.97	[3.98, 4.27]
Vigor	3.92	1.07	[3.74, 4.07]
Job satisfaction ^b	4.01	0.58	[3.92, 4.10]
Pay	4.04	1.02	[3.89, 4.20]
Promotion	3.4	1.02	[3.24, 3.55]
Supervision	4.66	1.08	[4.48, 4.82]
Fringe benefits	3.81	0.94	[3.67, 3.97]
Contingent rewards	3.76	1.1	[3.59, 3.93]
Operating conditions	3.06	0.83	[2.92, 3.19]
Coworkers	4.54	0.87	[4.40, 4.67]
Nature of work	5.0	0.78	[4.88, 5.11]
Communication	4.08	0.97	[3.92, 4.22]
Turnover intention ^c	2.08	1.05	[1.91, 2.26]

Note. *N* = 155. CI = confidence interval.

^a The Work and Well-Being Survey: 6-point Likert-type ordinal scale ranging from 1 (*never*) to 6 (*always*). ^b Job Satisfaction Scale: 6-point Likert-type ordinal scale ranging from 1 (*disagreed very much*) to 6 (*agreed very much*). ^c Turnover Intention Scale: 5-point Likert-type ordinal scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

Summary Statistics

Table 3 displays the descriptive statistics for the three summated scale scores. The observations for WE had an average of 4.23 (*SD* = .87, Min = 2.22, Max = 6.00). The observations for JS had an average of 4.01 (*SD* = .58, Min = 2.70, Max = 5.48). The observations for TI had an average of 2.08 (*SD* = 1.05, Min = 1.00, Max = 5.00).

Table 3. Descriptive Statistics for Work Engagement, Job Satisfaction, and Turnover Intention

Scale	Number of items	<i>M</i>	<i>SD</i>	Min	Max
Work Engagement	9	4.23	0.87	2.22	6.00
Job Satisfaction	36	4.01	0.58	2.70	5.48
Turnover Intention	3	2.08	1.05	1.00	5.00

Note. *N* = 155.

Regression Analysis

The multiple linear regression produced statistically significant findings with the model accounting for 28.7% of the variance in the dependent variable $F(5, 154) = 30.60, p < .001, R^2 = .287$. The null hypothesis, which examined the relationship between WE and TI, was rejected. The model revealed that WE was not a statistically significant predictor of nurse TI ($\beta = -.107, p = .38$, Table 4). The alternate hypothesis, which examined the relationship between JS and TI, was supported. The model revealed that JS was a statistically

significant predictor of TI ($\beta = -.47, p < .001$, Table 4). Linear regression was computed using WE, JS and demographic variables (i.e., age, years of experience and years of tenure) to predict TI. Demographic variables did not predict TI (Table 4).

Table 4. Regression Model Predicting Turnover Intention Based on Job Satisfaction, Work Engagement, and Demographic Variables

Variable	<i>B</i>	<i>SE B</i>	β	<i>T</i>	<i>P</i>	Bootstrap 95% CI (<i>B</i>)
Intercept	6.39	0.61		10.40	.001	[5.18, 7.66]
Work Engagement	-0.09	0.10	-.07	-0.89	.38	[-.30, 0.13]
Job Satisfaction	-0.86	0.14	-.47	-6.18	.001	[-1.18, -0.56]
Age	-0.01	0.01	-.17	-1.10	.28	[-0.05, 0.01]
Years of Experience	0.03	0.01	.04	0.4	.81	[-0.02, 0.03]
Tenure	0.01	0.10	0.07	0.75	.46	[-0.01, 0.02]

Note. CI = confidence interval. Full model: $F(5, 154) = 12.008, p < 0.001$. $R^2 = .287$. Durbin-Watson = 2.08. $N = 155$.

The results of the regression model, $F(5,154) = 12.008, p < .001$. $R^2 = .287$, indicated a statistically significant relationship between TI and JS but not between TI and either WE, age, years of experience, or tenure. Therefore, the null hypothesis concerning WE was rejected and the alternative hypothesis concerning JS was accepted. These findings are not entirely consistent with TRA which states that individuals' beliefs manifest as attitudes that can predict their behaviors. In a follow-up research, Ajzen and Fishbein (1980) expanded TRA so as to explain the progression of an individual's conscious decision-making efforts, which supposedly evolve from such external variables as demographics, behavioral beliefs, attitudes, subjective norms, and behavioral intention, and result in particular behaviors. However, no correlation of significance was found between demographics and TI.

Discussion

Conclusions and Recommendations

The findings of this research indicate that their degree of JS can have a significant influence on the TI of RNs. The finding that WE is not a predictor of TI contradicts some of the previously referenced published research, but this finding is also supported by other previous referenced published research. Also, as previously noted, the majority of previous published research found JS to be a predictor of TI, thus supporting the finding of this research concerning JS. Unlike the previous published research, in this research the predictiveness of WE and JS were directly compared in the same population. Based on the findings of this research and consideration of the previously published research, it appears that within some specific categories of professionals WE might be a predictor of TI, but overall JS is the more reliable predictor of TI.

As defined by the literature, WE is a measure of how the employees relates to their work and behavior in the workplace. It appears that being less than fully engaged does not mean that the person intends to leave that employment when the opportunity becomes available. In contrast, as defined by the literature, JS is a measure of how the employee feels about their work environment, conditions and the work itself. Dissatisfaction, if severe enough, with one or more of the nine constructs of JS can be sufficient to cause the employee to actively seek other employment.

Rather than leaders of healthcare organizations, or any other type of organization, just proceeding with additional programs to address each of the JS constructs, leaders should instead develop strategies to regularly and continuously assess their employees' degree of overall JS and satisfaction with each of the nine JS constructs. Quarterly JS surveys using a valid survey instrument such as the JSS should yield the necessary data for the development of those strategies. Similar recommendations were made by Campbell (2011).

Additionally, managers and supervisors should receive training on how to observe and engage an employee in conversations to assess an employee's relative satisfaction with each of the nine JS constructs. The results of the surveys and the feedback from managers and supervisors should then be the basis for determining specific initiatives to address individual and group dissatisfactions. The feedback from regularly scheduled JS surveys, and from managers and supervisors, would also assist leaders in assessing the effectiveness of recent efforts and initiatives to improve JS and reduce TI.

To explore an organizational production or performance problem, it may be useful to survey employees to determine their degree of WE. Leaders and managers should understand that WE is only a measure of the employee's dedication to the work, how absorbed they are by the work and the effort and energy they put into their work (Maslach & Leiter, 1997). In proposing TRA, Fishbein and Ajzen (1975) posited that an individual's beliefs transform into attitudes, which transforms into behavior and behavioral intentions. In the workplace, an individual's beliefs, values, and ethics are always factors in their behavior and decisions. Therefore, the intensity of an individual's WE may simply reflect the person's work ethic, or other ethic such as their loyalty to their workplace peers. However, a high degree of WE does not mean that the employee has a high degree of JS or a low degree of TI.

Significance of the Research

Significance to the body of management research

The base significance of this research is that it examined an unsettled management question and gap in the body of knowledge, specifically whether an employee's WE or JS are reliable predictors of TI, and which is the superior predictor. The research findings clearly indicate that JS is a predictor TI among RNs, and that WE is not a predictor. These findings, in the context of previous research, indicate that in other industries, JS is also more likely to be a reliable predictor of TI. Unwanted voluntary employee turnover is for many businesses and industries a significant burden. If properly applied, our recommendations could result in lower employee turnover, increased employee JS and cost savings for employers.

Significance to healthcare management

The findings of this research may assist the management teams of hospitals in focusing their effort to retain highly skilled and highly experienced nurses, especially in locations where there is an ongoing shortage of nurses. The improved retention of nurses could result in lower recruiting, hiring and onboarding costs, greater retention of institution knowledge and experience, improved patient safety and satisfaction, and better medical outcomes. Such results could improve the reputation, financial viability and economic sustainability of the healthcare organization.

Social significance

Healthcare delivery is a demanding field, and the delivery of exceptional patient care requires a dedicated and satisfied workforce. Improving the delivery of healthcare services and enhancing the healthcare experiences of patients could bring positive social change to the community that is served by that healthcare organization. RNs have a vital role in the healthcare delivery system and especially in ensuring patient safety and satisfaction. Improving the reputation, financial viability and sustainability of a healthcare organization could have a positive effect on the economy, sustainability, quality of life, and attractiveness of the surrounding

community. Also, a more stable workforce could reduce community disruptions caused by the constant turnover of community residents.

Limitations, Criticisms, and Possible Future Research

The number of male participants in this research was less than ideal, but that percentage is reflective of the overall RN profession. The data were collected from a single time period and although this approach yields useful findings, similar but longitudinal research could potentially yield additional insights into the relationship between JS and TI. In retrospect, instead of paper surveys, electronic surveys might have been more convenient for participants and might have yielded a higher response rate. This research could be replicated in similar other healthcare organizations and in other locations to test these findings. It also could be useful to conduct similar research using other categories of healthcare employees to determine if there are any significant differences from these findings. The design of this research could also be used to examine the same research question with employees in other industries and other types of organizations.

In this research the JSS was used because it is one of two highly respected and thoroughly validated survey instruments to measure JS. The other instrument is the Minnesota Satisfaction Questionnaire (MSQ) that measures 20 constructs of JS and is based on the theory of work adjustment (Weiss et al., 1967). Replicating this research using the MSQ would determine whether the JSS or MSQ is the better instrument for predicting TI.

Final Thoughts

In this research the focus were the well-known and accepted concepts of WE and JS, but we think that a better measurable concept will be developed in the near future by diligent researchers. It is our hope that this research reminds all of its readers of the infinite complexity and diversity of human minds and human behavior in organizations. There are endless opportunities to do valuable research to contribute to the body of knowledge and effect real-world organization change that contributes to positive social change.

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