Frontline registered nurse job satisfaction and predictors over three decades: A meta-analysis from 1980 to 2009

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ABSTRACT

Background: Frontline registered nurses' job satisfaction is important because it is tied to retention, organizational commitment, workforce safety, patient safety, and cost savings. The purpose of this study was to comprehensively, quantitatively examine the largest, moderate, and smallest predictors of frontline registered nurse job satisfaction from 1980 to 2009.
Methods: A non–a priori meta-analysis was used to analyze studies that met inclusion.
Results: Sixty-two studies and 27 job satisfaction predictors met inclusion for analysis. The largest effect sizes were found for task requirements ($r = .61$), empowerment ($r = .55$), and control ($r = .52$), and moderate effect sizes were found for 10 predictors. Fail-safe N indicates high reliability. Heterogeneity between studies was present in all of the 27 predictor analyses.
Conclusions: The largest predictors of job satisfaction for the frontline registered nurse may be different than previously thought. Supporting past research, autonomy and stress were found to be moderate predictors of satisfaction. Heterogeneity indicates study differences or moderator influence in studies.

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Introduction

Nursing is a fast-paced, labor-intensive work environment with a history of cyclical shortages. Nowhere is this more apparent than in the frontline registered nurse (RN) workforce (Buerhaus, Staiger, & Auerbach, 2009; Kimball & O'Neil, 2002). These bedside RNs care for the most acutely ill patients in a work environment in which the workload is physically and emotionally exhausting, the workplace is chaotic and unpredictable, respect from administrators and medical doctors (MDs) is deficient, and staffing shortages are recurrent

(Kimball & O'Neil, 2002). The working environment can be linked to satisfaction and dissatisfaction of the frontline workforce.

Workforce satisfaction is important because it is related to staff engagement and stabilization, which are cost-effective and desirable objectives (Jones, 2005, 2008; Kramer & Schmalenberg, 2005; Lu, While, & Barriball, 2007; Simpson, 2009). Increases in nursing satisfaction result in more reports of intent to stay in both acute care and nursing home settings (Beecroft, Dorey, & Wenten, 2008; Karch, Booske, & Sainfort, 2005; McCarthy, Tyrrell, & Lehane, 2007; Tourangeau & Cranley, 2006). Conversely, the cost of job

dissatisfaction can be measured by increased voluntary turnover, decreased patient safety, diminished patient satisfaction, and ongoing frustration among the workforce (Aiken et al., 2001; Cowin, 2002; Florida Center for Nursing, 2009; Halfer & Graf, 2006; McHugh, Kutney-Lee, Cimiotti, Sloane, & Aiken, 2011).

Health care institutions pay a price for dissatisfaction. Replacing a nurse can cost as much as $92,000 because of hiring expenses, lost productivity, and advertising (Robert Wood Johnson Foundation, 2006). Brewer, Kovner, Green, Tukov-Shuser, & Djukic (2012) calculated that the 43.4% turnover rate for new graduate nurses within the first 3 years of hire in 2006 could cost between $1.4 and 2.1 billion to the US health care system. Moreover, in Florida, spending from nurse turnover in 2006 to 2007 exceeded $1.4 billion (Florida Center for Nursing, 2009). This turnover creates a trickle-down effect. A revolving door, whether triggered by management or staff, threatens job satisfaction of nurses because in addition to being tasked with orienting recent hires, RNs must also care for the sickest of patients while new graduates become clinically proficient and experienced new hires acclimate to the work environment.

In addition to costs associated with RN turnover, satisfaction levels affect patient satisfaction and safety, further increasing costs. Health care reimbursement now focuses on value-based purchasing, which centers on patient satisfaction and safety (Centers for Medicare and Medicaid Services, 2013; Kurtzman & Johnson, 2012). A work environment that does not support the satisfaction of frontline RNs could create barriers for optimal patient care and negatively affect reimbursements to health care organizations (Choi & Boyle, 2013; Jarrett, Holt, & LaBresh, 2013).

Previous research has examined numerous predictors of satisfaction for RNs (Blegen & Mueller, 1987; Brewer & Kovner, 2009; Freeman & O'Brien-Pallas, 1998; Seo, Ko, & Price, 2004). In addition, three meta-analyses have been conducted over the past 25 years to comprehensively quantify the importance of predictors of satisfaction for RNs (Blegen, 1993; Irvine & Evans, 1995; Zangaro & Soeken, 2007). However, there has been no comprehensive meta-analysis of satisfaction predictors for frontline RNs. The aim of this meta-analysis was to identify large ($r \geq .50$), moderate ($r = .30−.49$), and small ($r = .10−.29$) summary effect sizes of satisfaction predictors with studies that examined frontline RNs from 1980 to 2009.

Methods

Search Strategy

A comprehensive search for studies proceeded four ways. First, a comprehensive search of nursing, allied health, management, and social science journals in databases Medline, CINAHL, PSYC Info, and Academic Search Premier was conducted to include studies published from 1980 to 2009. Keyword searches combined nurse, nurses, staff nurses, or nursing with satisfaction or job satisfaction. Second, searches for unpublished data included list serves, letters to nursing leaders, and correspondence. Third, unpublished dissertations were searched using Proquest Dissertation Thesis and Proquest Dissertation and Thesis using the same keyword searches as with published studies (i.e., combined nurse, nurses, staff nurses, or nursing with job satisfaction). Fourth, as articles or dissertations were reviewed, a search of each document's reference section was conducted to provide additional studies (i.e., a "backward search"). As backward searched articles were reviewed, all their respective reference sections were reviewed to ensure a comprehensive literature search.

Study Inclusion/Exclusion

All abstracts were reviewed using inclusion and exclusion criteria to narrow the selection of studies considered for the meta-analysis. Studies were included if they quantitatively examined the predictors of frontline RN job satisfaction in the work environment and were published from 1980 to 2009. Inclusion criteria required disclosure of Cronbach alpha for the job satisfaction tool. Moreover, tools measuring job satisfaction were reviewed for reliability and met a Cronbach alpha of .65 as the acceptable metric for inclusion (DeVellis, 2012). Test/retest scores were not consistently reported in studies and therefore not used for inclusion criteria. Studies were excluded if the sample was described as "nurses" rather than RNs, incorporated certificate nurses or licensed practical nurses, included a sample that primarily consisted of RNs in management and/or educator positions, or did not specifically state that the sample of RNs were staff or frontline nursing positions. Studies were also excluded if the data were used in another study that was already considered for inclusion, the sample size was not presented, the study was not written in English, or the statistics reported were not usable.

Predictors of Satisfaction/Inclusion and Reliability

Consistent with the non−a priori approach, predictors were not eliminated before predictor coding (Cooper, 2010). Predictors were eliminated from this study if they were found in less than four primary studies that met inclusion criteria (e.g., workplace violence and work/family conflict). Study reliability was maximized through a coding procedure with a secondary coder who independently examined data entry and the conceptual meaning of predictors (Table 1). Any disagreements regarding the predictor meaning and subsequent coding were resolved by consensus. Interrater agreement was met 100% of the time for the randomly selected sample of studies for each of the predictor categories.

Quality of Primary Studies

Because the writing and research reporting styles in the field of nursing have vastly changed over the past