Effect of Nurses’ Job Demands and Job Resources on Work Engagement based on JDR model

Jeong-Won, Han
College of Nursing, Kosin University, Amnam-dong, Seo-gu, Busan, South Korea
Corresponding Author: hjw0721@kosin.ac.kr

Abstract. This study investigated the relationships between nurses’ job demand, job resource, emotional labor, and work engagement. Data obtained from completed questionnaires were analyzed using SPSS Windows 18.0 and AMOS 16.0. Job resources did not affect surface acting in emotional labor, job demand directly affected surface acting in emotional labor. Job resources directly affected deep acting in emotional labor. Deep acting in nurses’ emotional labor directly affected work engagement. However, surface acting did not. Job resource richness significantly affected work engagement with emotional labor as a mediator, whereas job demand did not. This has important implications in that it provides baseline data for a work engagement prediction model that hospital managers can use for effective human resource management of nursing staff.

Keywords: Job, demand, resource, engagement

1 Introduction

Hospitals are organizations that include a diverse professional workforce, and nurses play a central role in satisfying patients and thus are requested to provide high-quality services to patients by the hospitals [1]. However, nurses experiencing work burnout and a decrease in work engagement are leaving hospitals due to job stress from first-hand contact with patients suffering from disease and the demands of their guardians [2]. High nurse turnover rates account for the largest proportion of hospital organizational issues—including insufficient nursing staff and lower productivity—impeding hospital development. Therefore, hospital managers are interested in improving their work engagement to reduce turnover intention [3].

Work engagement is based on a facilitating behavioral system in which a worker behaves actively to directly experience the pleasures and rewards and, as a result, performs creatively at work, and experiences positive outcomes [4]. The job demands-resources model (JDR) [5] has been proposed to explain the generation and outcomes of work engagement in an integrated manner. This model proposes that various job demands and resources in the job environment affect work engagement and also indirectly affect health and turnover. Although job demands do not always
have negative effects on workers, excessive job demands can be a cause of job stress, as they often accompany irredeemable negative responses [6]. In contrast, job resources play a functional role in achieving a performance goal, and stimulate the growth, learning, and development of an individual [7], help them deal with excessive job demands, and are essential factors in executing tasks [8]. However, the JDR proposed has a limitation in that it omits the process by which diverse job demands and job resources given in a job environment progress to work burnout and work engagement [9]. In particular, clinical nurses commonly experience work burnout during the course of interacting with patients and their guardians, and the emotional labor of controlling their emotions to accommodate the sensitive responses of patients and expectations of the organization; i.e., a profit, become the major cause of work burnout. Therefore, the emotional labor of nurses does not necessarily cause negative work burnout but can lead to either negative work burnout or positive work engagement, depending on the emotional labor strategy under the given circumstances.

The purpose of this study was to develop a hypothetical model to explain nurses’ job burnout and job engagement and to examine the mediating effect of emotional labor in the relationship between nurses’ job demands, job resources, and job engagement, by testing the goodness of fit of actual data.

2 Methods

Convenience sampling was used for this study. Participants comprised 360 consenting nurses, working in six general hospitals located in Seoul. SPSS Windows 18.0 (SPSS Korea data solution Inc.) and AMOS 7.0 (SPSS Korea data solution Inc.) were used for data analyses. This study analyzed participants’ demographic characteristics using SPSS Windows 18.0. To verify convergent validity, factor loading, squared multiple correlation (SMC), standardized residual covariance (SRC), construct reliability (CR), and average variance extracted (AVE) were used. Discriminant validity aims at verifying whether factors are independent of one another; in this study we used Root (√) values of correlation coefficients and AVE values. Since this study had high-dimensional factors, primary and secondary factor analyses were conducted using higher-order factor analysis. In order to verify the model’s goodness of fit, chi-square, chi-square/degrees of freedom (≤3.00), adjusted goodness of fit index (AGFI ≥0.90), goodness of fit index (GFI ≥0.90), comparative fit index (CFI ≥0.90), root mean square residual (RMRS ≤0.08), root mean square error of approximation (RMSEA ≤0.08), and normed fit index (NFI ≥0.90) were used.

3 Results

Goodness of fit of the study model was $\chi^2 = 378.78, p < 0.001$, $\chi^2/df = 2.77$, GFI = 0.93, AGFI = 0.89, NFI = 0.92, CFI = 0.94, and RMSEA = 0.06. This study examined the direct, indirect, and total effects of nurse job demands and job resources on work engagement, with surface acting and deep acting as mediating variables. The
bootstrapping method was used to test the significance of the indirect effect. No significant correlation was found between job demand and job resources. While job resources did not affect surface acting in emotional labor, job demand directly affected (γ = 0.47, \( p = 0.004 \)) surface acting in emotional labor, and explained 18% of surface acting in emotional labor. Additionally, job resources directly affected (γ = 0.48, \( p = 0.003 \)) deep acting in emotional labor, and explained 26% of deep acting in emotional labor. Deep acting in nurses’ emotional labor directly affected work engagement (β = 0.65, \( p = 0.003 \)); however, surface acting did not. Moreover, job resource richness significantly affected work engagement (β = 0.34, \( p = 0.004 \)) with emotional labor as a mediator, whereas job demand did not. Hence, the direct effect of deep acting of emotional labor and the indirect effect of job resources explained 45% of work engagement (Table 1).

# Discussion

Job demand on nurses was directly positively related to surface acting in emotional labor, whereas nurses’ job resource richness was directly positively related to deep acting in emotional labor. This result corresponded with this of study by Song and Liu [11] regarding service representatives at call centers. In those studies, job demand was significantly directly positively related to surface acting in emotional labor, and job resource richness was significantly directly positively related to deep acting in emotional labor, indicating that job resource richness positively motivates job performance. Nurses perform their work in the face of undue demands from patients and their organization by acting differently than would be dictated by their real emotions because they are employed in a service industry. And the direct effect of deep acting of emotional labor and the indirect effect of job resources with deep acting of emotional labor as the mediator. This result was confirmed by Yi et al. [9], who reported that the emotional labor strategy plays a mediating role in the JDR regarding work engagement in nurses. That is, deep acting of emotional labor acted as an important mediating variable in boosting work engagement. Hence, to improve the quality of nurse services, hospital management must take advantage of education and other programs that can have a direct effect on work engagement, in addition to providing sufficient job resources and reducing excessive job demands.

# Conclusion

This study was conducted to establish a model for an integrated analysis of the relationships among job demands and resources, work engagement, and the mediating effect of emotional labor in clinical nurses, and to verify the relationships among these factors. Job demands was positively related to surface acting of emotional labor. Job resources was positively related to deep acting of emotional labor. And job resources indirectly positively affected work engagement through deep acting of emotional labor as the mediator, demonstrating emotional labor to be a mediating variable.
References