Job Standardization: Helping Adaptation and Retention of Newly Graduated Nurses

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ABSTRACT

Newly graduated nurses are under pressure to perform their jobs without required skills and experiences, which reflect a high turnover rate within the first year of employment. To address this problem, the researchers examined the effects of job standardization on newly graduated nurses’ adaptation. This study utilized a correlational, cross-sectional design. Hypotheses were tested using survey data from 214 newly hired graduates in two teaching hospitals and ten public hospitals in Taiwan. Results indicated that job standardization had significant negative effects on job stress and intention to quit. Findings of this study suggest that as hospitals face a serious nursing staff shortage, it is essential to create a job-standardized environment, which facilitates the transition of new graduates into professional nurses, via increasing their confidence and competence to provide high quality cares, and reducing their job stress and turnover rate.

INTRODUCTION

Nursing is by nature a stressful occupation (Healy & Mckay, 1999; Schroeder & Worrall-Carter, 2002; Stordeur, D’hoore & Vandenberghe, 2001). Everyday, nurses must work against the clock, sudden switch back and forth, from intense to mundane tasks, and confront stark suffering, grief and death in a way that few people do (Farrington 1995). For the newly graduated nurses, vast majority seek their first jobs in the hospitals who should prepare themselves for additional pressure to “fit in” their new work environment.

The transition period has been described as “the most stressful time” for many new nurses (Charnley, 1999; Jones & Johnston, 1997; Mooney, 2006; Oermann & Garvin, 2002). The new entrants are unfamiliar with the situations, surroundings, and procedures they might encounter. As troubling events may occur anytime and anywhere, they may experience high levels of uncertainty and pressure, regarding what is appropriate and how to respond. In consequence, turnover rates of new graduates go from 35% to 60% during the first year of employment (Beecroft, Kunzman, & Krozek, 2001; Casey, Fink, Krugman, & Propst, 2004; Ellerton & Gregor, 2003; Godinez, Gruver, Ryan, & Schweiger, 1999). Hospitals suffer not only financial losses, but also the promise and potential of those new hires. Therefore, creative means to address the adaptation and retention of newly graduated nurses are imperative.

Orientation programs have often been thought of as an approach to solve this problem (Delaney, 2003; Fey & Miltner, 2000; Godinez et al., 1999; Meyer & Meyer, 2000). In addition, preceptorship programs have also been postulated as conducive to a smooth progress from novice to expert (Baltimore, 2004; Casey et al., 2004; Delaney, 2003; Fey & Miltner, 2000; Godinez et al., 1999). Even though these empirical studies identified ways to facilitate employees’ adjustment, they did not sufficiently focus on how to design or modify job procedures to help newcomers coping with “entry stress” at new jobs. Since
little research attention has been paid to clarify the roles of job-related variables in the transition period, the purpose of this study is to examine the effects of job standardization on job stress and intention to quit among newly graduated nurses.

**HYPOTHESES**

Job stress has broad-based impact on organizational behavior, such as job satisfaction, organizational commitment, turnover tendency, and so on (Fang, 2001). Research on nursing has revealed that newly graduated nurses experience several potential types of job stress, including lack of confidence, role ambiguity and role conflict, value conflict, and lack of support (Kelly, 1996). This study proposes that job standardization as the organization develops standard operating procedures to guide people in their jobs will decrease these types of pressure effectively.

One of the primary sources of stress facing new graduates is the lack of confidence (Casey et al., 2004; Charnley, 1999; Kelly, 1996; Oermann & Garvin, 2002). To cope with this stress, newcomers need to acquire information concerning job skills and knowledge. With job standardization, each task is organized into steps, such as how to operate equipment, deal with routine problems, and so on. By following standardized procedures, new hires can master their jobs quickly that will lead them to greater self-efficacy and confidence.

A second source of tension for new graduates is role ambiguity and role conflict (Chang & Hancock, 2003; Charnley, 1997; Jasper, 1996; Kelly, 1996). To deal with this difficulty, newcomers need to acquire information related to the demands of their roles. Job standardization classifies work content and context, and specifies the authority and responsibility for every position. It aims at helping new employees to understand their role requirement and expectations, and to decrease their role ambiguity and role conflict.

A third stress factor faced by new graduates is the value conflict (Charnley, 1999; Duchscher & Cowin, 2006; Kelly, 1996; Reutter, Field, Campbell, & Day, 1997). To ameliorate this problem, acquiring information about organizational norms and values is inevitable. Once the job is standardized, the procedures should reflect the hospital’s care mission, quality policies, and value premises of the organizational system. It further ensures the new entrants’ achievement of the organizational service goals, and reduction in the level of value and culture conflicts.

Lack of support would be the final source of stress new graduates regularly encounter (Casey et al., 2004; Charnley 1999; Kelly, 1996; Oermann & Garvin, 2002). To sort this stress problem out, newcomers need to acquire information regarding the appropriate behaviors that workgroups expect. Job standardization also identifies patterns of proper attitudes and behaviors, and defines communicative and interactive norms with others at work, such as supervisors, coworkers, and patients. It may promote newcomers to win group approval and social support.

Based on the preceding literature review and rational inferences, the following hypotheses were posed for study:

*Hypothesis 1.* Job standardization will be negatively related to new graduates’ job stress.

*Hypothesis 2.* Job standardization will be negatively related to new graduates’ intention to quit.
METHOD

Design
We adopt a correlational, cross-sectional survey design to investigate the transition experiences of newly graduated nurses. A self-administered questionnaire was used to explore the influences of job standardization on job stress and intention to quit.

Measures

Job standardization. Job standardization was measured by a three-item scale adapted from Hsieh & Hsieh (2001) to assess the degree to which employees follow standardized operating procedures in performing their jobs. These items were: “There are no standard operating procedures in this hospital,” “We are to follow strict operating procedures,” and “Whatever situation arises, we have procedures to follow in dealing with it.” Items were scored on a 5-point scale (1=strongly disagree to 5=strongly agree) and then averaged to form a score for each respondent. Alpha reliability in this study was .76.

Job stress. Job stress was measured by the psychology stress scale from Caplan (1980). This scale includes five items such as having trouble getting up in the morning, not feeling qualified for the job, or generally feeling stressed by the job. Items were scored on a 5-point scale (1=strongly disagree to 5=strongly agree). Scores were averaged across the five items, in which higher scores represent higher levels of job stress. Alpha reliability for this study was .80.

Intention to quit. Intention to quit was measured by using a three-item scale based on Colarelli (1984). This scale was designed to assess the frequency in which participants thought of quitting, and the probability that they would find a new job in the next year. Items were scored on a 5-point scale (1=strongly disagree to 5=strongly agree). Scores were averaged across items, where higher scores indicate higher levels of intention to quit. The alpha reliability in this study was .82.

Control variables. In an attempt to test the hypotheses more precisely, the following variables were used as control variables: tenure, orientation, and preceptorship programs in the current workplace.

Procedures
This study was conducted in two teaching hospitals and ten public hospitals throughout the Taipei area in Taiwan. Nursing directors in the hospitals were contacted by telephone and asked to participate in this study. Three hundred questionnaires were sent to them for distribution among their newly graduate nurses who had joined their hospitals within the previous one-year period. Completed questionnaires were mailed back to the researcher. All respondents were voluntary and anonymous. Finally, a total of 214 usable questionnaires were returned and represented a response rate of 71%. The data were coded and analyzed using SPSS for Windows 14.0 software package.

RESULTS

The majority of the samples were female (99%). This pattern of gender representation reflects the ongoing trend of a female-dominated profession in Taiwan. The mean age of participants was 22.88 years old (SD = 1.29), and average tenure in the present hospital was 5.44 months (SD = 3.20). Among the respondents, 37% reported that job standardization was placed high in their working environment (i.e., all three items on the job standardization scale were rated four points or higher). 18% reported that it was low (three points or less). The remainder reported a medium degree.
Table 1 presents the means, standard deviations, and correlations of the study variables. Inspection of Table 1 indicates that job standardization was significantly and negatively related to job stress \((r = -.36, p < .001)\), and intention to quit \((r = -.35, p < .001)\). The control variables, except tenure, were also negatively correlated with job stress and intention to quit.

### Table 1: Means, Standard Deviations, and Correlations of Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent variable</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>1. Job stress</td>
<td>2.80</td>
<td>0.50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Intention to quit</td>
<td>2.53</td>
<td>0.59</td>
<td>.53 ***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independent variable</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
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</tr>
<tr>
<td>3. Job standardization</td>
<td>3.68</td>
<td>0.62</td>
<td>-.36 ***</td>
<td>-.35 ***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control variable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Tenure</td>
<td>5.44</td>
<td>3.20</td>
<td>-.08</td>
<td>-01</td>
<td>-.15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Orientation programs</td>
<td>0.76</td>
<td>0.43</td>
<td>-.37 ***</td>
<td>-.29 ***</td>
<td>-.04</td>
<td>-.03</td>
<td></td>
</tr>
<tr>
<td>6. Preceptorship programs</td>
<td>0.79</td>
<td>0.41</td>
<td>-.39 ***</td>
<td>-.34 ***</td>
<td>.03</td>
<td>-.10</td>
<td>.57 ***</td>
</tr>
</tbody>
</table>

\(*** p < .001\).

Hierarchical regression was used to test the hypotheses. All control variables were entered into the regression equation first, and then followed by job standardization. Results are summarized in Table 2.

Hypothesis 1 predicted that job standardization would be negatively associated with job stress. As shown in Table 2, job standardization explained a significant amount of additional variance in job stress when entered with all control variables \((\Delta R^2 = .14, p < .001)\), and regression coefficient was in the predicted direction \((\beta = -.39, p < .001)\). Therefore, this hypothesis was supported.

Hypothesis 2 predicted that job standardization would be negatively associated with intention to quit. As indicated in Table 2, job standardization explained a significant amount of additional variance in intention to quit when entered with all control variables \((\Delta R^2 = .13, p < .001)\), and regression coefficient was in the predicted direction \((\beta = -.36, p < .001)\). Thus, there was support for this hypothesis.

### Table 2: Results of Hierarchical Regression Analyses

<table>
<thead>
<tr>
<th>Variable</th>
<th>Job stress (\beta)</th>
<th>Intention to quit (\beta)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control variable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Tenure</td>
<td>-.12</td>
<td>-.04</td>
</tr>
<tr>
<td>2. Orientation programs</td>
<td>-.22 *</td>
<td>-.14</td>
</tr>
<tr>
<td>3. Preceptorship programs</td>
<td>-.28 **</td>
<td>-.26 *</td>
</tr>
<tr>
<td>Independent variable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Job standardization</td>
<td>-.39 ***</td>
<td>-.36 ***</td>
</tr>
<tr>
<td>(R^2) at each step</td>
<td>.20 ***</td>
<td>.13 **</td>
</tr>
<tr>
<td>(\Delta R^2)</td>
<td>.14 ***</td>
<td>.13 ***</td>
</tr>
</tbody>
</table>

\(* p < .05. ** p < .01. *** p < .001.\)

### DISCUSSION

Results of this study indicate that job standardization has significant effects on decreasing newly graduated nurses’ job stress and intention to quit. That is to say, job standardization plays a pivotal role in the transition period. Both the stress literature and the socialization literature have mentioned that uncertainty is the key variable which creates stress in new jobs (Miller & Jablin, 1991). Then, information
transmitted from various organizational sources is the key goal for newcomers to cope with the stress (Ostroff & Kozlowski, 1992). Job standardization can provide explicit work-related information to newly graduated nurses. It delineates the steps that they should take to succeed in their new roles, and to change their behaviors to survive in the work setting.

According to Miller & Jablin (1991), newcomers usually search for information to reduce their feelings of uncertainty through interpersonal sources. Their supervisors and coworkers often serve as consultants because the latter are familiar with new employees’ jobs and interact with new hires regularly. But all communication involves social costs and risks, new employees who fear that may prefer to consult non-interpersonal sources (Morrison, 1993). In addition, there is some evidence which suggests that newcomers receiving information from interpersonal sources is inadequate (Miller & Jablin, 1991). Hence, job standardization may be particularly important in poor communication environment or complementary to interpersonal sources.

In practice, many countries are facing a similar challenge of filling nursing workforce. For example, in the year 2000, the shortage of full-time registered nurses in the United States was about approximately 6%. This deficiency is predicted to increase to 12% by 2010 and to 29% by the year 2020(Chandra & Willis, 2005). Hospital administrators and nurse leaders should make great efforts in the retention of newly graduated nurses by providing effective tactics to bridging the gap between the class and the workplace in the current nursing shortage. A widespread method of addressing the transition from student to professional nurse is done by the way of formal orientation programs, which orient new graduates to the hospital environment and organizational culture (Tradewell, 1996). However, the time might be too short and new hires might not be comfortable with work routines on the nursing unit (Olson et al. 2001). Preceptorship programs also have critical impact on providing social support and behavior advice to new graduates (Blasler, 1993). However, there may not be a plentiful number of experienced nurses to provide every new member with a preceptor (Maiocco, 2003).

It is necessary that hospitals should establish sufficient standard operation procedures to contribute to the alleviation of job stress. For individuals, job standardization can help newcomers to learn the required skills and techniques, avoid making mistakes and regain their confidence of performing well on their new jobs. For organizations, newcomers will become more effective insiders with positive attitudes and have lower intention to quit. Consequently, hospitals can maintain a long-term level of productivity and prevent ongoing shortages of professional nurses.

There are two limitations should be noted when the results of this study are interpreted. One limitation is that given the cross-sectional design of this study, the findings are difficult to capture the time effects. Future research should use a longitudinal design to examine the relationships predicted in this study on newly graduated nurses.

The other limitation of this study is that it relied solely on self-report data, even though self-reports of job stress and intention to quit are appropriate when the focus of inquiry is on newcomer perceptions. Future work should be directed at gathering independent assessments of actual turnover through organizational records.

REFERENCES


