Differences of Job stress, Burnout, and Mindfulness according to General Characteristics of Clinical Nurses

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Abstract. This study was conducted to determine the differences of job stress, burnout, and mindfulness according to general characteristics of clinical nurses, in Korea. Questionnaires used were the Job Stress questionnaire by Kim & Gu, the burnout questionnaire developed by Pines, Aronson and Kafry, and the mindfulness questionnaire developed by Park. The results were as follows: job stress and burnout were different according to age groups, level of education, work units, current positions, and clinical careers. For mindfulness, differences were found according to age groups, level of education, and current positions.

Keywords: job stress, burnout, mindfulness

1 Introduction

Hospital nurses are reported to have relatively high levels of job stress compared to other occupations, due to large qualitative and quantitative medical demands and complex interpersonal relations [1]. Job stress may cause withdrawn behavior, since it lowers efficiency and leads to psychological burnout [2]. Burnout, a negative response to job stress, is characterized by loss of ability to manage constant job stress. Burnout can foster negative job attitudes, affect the quality of medical services, and increase errors in nursing practice [3]. Alternatively, mindfulness cultivates universal human internal resources by fostering objective acceptance of thoughts, emotions, and experiences. Mindfulness also emphasizes adaptation to stressful situations, reduction of one’s resistance to change, and elimination of dysfunctional behavior patterns through reduction of immediate emotional responses and promotion of cognition evaluation [4]. Consequently, this primary aim of this study is to determine differences between research variables according to general characteristics of clinical nurses, in order to obtain basic data for future management of nursing organizations.
2 Methodology

2.1 Research design and subjects

A descriptive design was used in the research, and subjects were clinical nurses of two general hospitals in Seoul.

2.2 Measurements

To measure the interest in scientific learning, this study applied the Job Stress questionnaire [5], consisting of 30 questions using the five-step Likert scale. The Cronbach’s $\alpha$ of this study was .921.

For measurement of burnout, we adapted the questionnaire developed by Pines, Aronson and Kafry [6], consisting of 20 questions and is also a five-step Likert scale. The Cronbach’s $\alpha$ of this study was .962.

For measurement of mindfulness, we adapted the questionnaire for mindfulness developed by Park[8], consisting of 20 questions using the five-step Likert scale. The Cronbach’s $\alpha$ of this study was .912.

2.3 Data processing

The data collected in this study were statistically processed using the SPSS WIN 20.0 program using frequency, percentages; t-test, ANOVA, and Scheffe test for post hoc.

3 Results

3.1 Characteristics of the subjects

The subjects were almost all women, 90.3% (298); when we checked the age ranges, the 20th age group was the largest group, 54.5% (180), and average age was 31.2±8.4 years old. In education, diploma was the largest group, 57.3% (189). Current positions were 79.1% (261) of staff nurses, average clinical experience was 5.9±3.4 years.

• 3.2 Differences of research variables according to the general characteristics

The differences of research variables according to the general characteristics were as follows. First, in measurement of job stress, significant differences were observed between the 20th and 40th age groups (F=3.25, $p=.022$); in education level, there were significant differences in BS, diploma, and MS degree (F=3.08, $p=.048$), in order. In comparison of the working units, there were significant differences among general wards, special unit,
outpatient department, in order (F=14.87, p<.001), and in positions, staff nurses were significantly higher than charge nurses (F=3.43, p=.033).

For burnout, there were significant differences in the 20th and 30th age groups compared with the 40th and 50th age groups (F=17.90, p<.001). For education level, diploma and BS group were significantly higher than MS group (F=9.97, p<.001). In comparison of working units, general ward nurses were significantly higher than special parts (F=5.03, p=.007), in case of position, staff nurses were significantly higher than the charge and head nurses groups (F=14.64, p<.001), when comparing clinical experiences, the below 5 years group was significantly higher than the above 5 years group (F=10.26, p<.001).

Mindfulness according to general characteristics was as follows. First, men were significantly higher than women (t=-.79, p=.006). There were significant differences among the age groups (F=4.76, p=.009). In position, there were statistically differences among positions, but can’t find post hoc (F=3.36, p=.036)<Table 1>.

**Table 1.** Differences of Job stress, Burnout, and Mindfulness according to General Characteristics of Participants (N=330).

<table>
<thead>
<tr>
<th>Variables</th>
<th>Items</th>
<th>Job stress</th>
<th>Burnout</th>
<th>Mindfulness</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean (SD)</td>
<td>t/F(p)</td>
<td>Scheffe</td>
</tr>
<tr>
<td>Gender</td>
<td>Female</td>
<td>2.88 (.48)</td>
<td>.56</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>2.83 (.52)</td>
<td>.811</td>
<td></td>
</tr>
<tr>
<td>Age(yr)</td>
<td>a. 20~29</td>
<td>2.92 (.47)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. 30~39</td>
<td>2.87 (.50)</td>
<td>3.25</td>
<td>(.022)</td>
</tr>
<tr>
<td></td>
<td>c. 40~49</td>
<td>2.69 (.50)</td>
<td>a&gt;c</td>
<td>(.069)</td>
</tr>
<tr>
<td></td>
<td>d. ≥50</td>
<td>2.75 (.43)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level of Education</td>
<td>a. Junior college</td>
<td>2.85 (.45)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. University</td>
<td>2.93 (.52)</td>
<td>3.07</td>
<td>(.048)</td>
</tr>
<tr>
<td></td>
<td>c. Above Graduate</td>
<td>2.66 (.57)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work unit</td>
<td>a. Inpatient</td>
<td>2.97 (.44)</td>
<td>14.87</td>
<td></td>
</tr>
</tbody>
</table>
## 4 Discussion

In this study, nurses’ job stress averaged 2.87; this score was lower than average based on nurses’ personality types, which were 3.33–3.37 [9]. Therefore, with regard to managing nursing organizations, it is necessary to understand why job stress scores vary across viewpoints and participants. Participants’ average burnout score was 3.06, compared with specialist insurance assessment nurses’ average score of 2.98 [7]; participants’ scores indicated that general nurses are more burnt out. This result likely arises from multiple factors; however, one important factor is differing job satisfaction between regular nurses, who manage complex and diverse patient care problems, and specialist nurses. A comparative study is required in order to examine this factor. The average mindfulness score, however, was 3.91, which was lower than that of another study on nurses, which reported an average score of 4.09 [1]. Mindfulness is known to improve individuals’ ability to eliminate dysfunctional behavior patterns in stressful situations by reducing immediate emotional responses and promoting cognition evaluation [10]. Therefore, we might consider improving participants’ situations by offering mindfulness training programs to clinical nurses.

Regarding differences in job stress according to general characteristics, we found significant differences depending on age, educational level, department, position, and clinical experience. Regarding age, nurses in their twenties had significantly higher job stress scores than those in their forties. This result may suggest that nurses in their twenties experience higher workload. However, this contrasts with a study by Han et al. [9], who found that job stress increases with increasing age. This finding may be due to differences in the characteristics of jobs performed by different age groups; nonetheless, this issue requires further investigation. Regarding burnout scores according to general characteristics, statistically significant differences were found depending on age, educational level, department, position, and clinical experience. That is, general nurses in their twenties and thirties, those with a vocational degree, those working in wards,
and those with five or less years of clinical experience (compared to those with more than 5 years of experience) had higher burnout scores. These results are similar to those of Kwon & Lee, who used the same instrument [11]. Therefore, programs and research should be implemented and conducted to reduce clinical nurses’ burnout rates. In particular, nurses with less experience and of lower position experience greater loss of clinical problem-solving ability, and engage in more trial-and-error behavior, which promotes burnout. Thus, development of programs to prevent burnout resulting from work experience or position is vital. Conversely, nurses who were male, in their fifties, had a bachelor's degree, head nurses, and nurses with five or more years of working experience had greater mindfulness scores; this result was similar to that of Oh & Koh [1]. However, this topic should be the subject of detailed future investigation, since few studies have examined mindfulness in clinical nurses.

References