

A Study on Job Stress and Emotional Burnout of Clinical Nurses

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Abstract

This study attempts to provide basic data for the development of manpower maintenance programs by checking the degree of job stress and emotional burnout for nurses working in a university hospital and identifying factors affecting emotional burnout. Data were obtained through a structured questionnaire survey conducted on 187 nurses. The average score for job stress of nurses was 2.50 (range 1 to 4) and emotional burnout was 3.29 (range 1 to 5). The factors affecting emotional burnout were occupational climate, job demand, job insecurity, and lack of reward, which accounted for 44% of explanatory power. In order to reduce the emotional burnout of nurses, the management of medical institutions needs administrative and financial support. Further, it is necessary to improve the organizational culture regarding job assignment through job analysis, employment security, and a performance-based reward system.

Keywords: Nurse, Job Stress, Emotional Burnout, Occupational Climate, Job Demand

1. INTRODUCTION

Clinical nurses working at the medical institution are close to the patient's diseases and death throughout admissions and discharges [1]. Compared to other healthcare workers, nurses are under heavy stress due to the job characteristics which involve close contact with patients and adjusting to rapid changes in healthcare policies [2]. Especially, work overload under the development of high-tech medical devices and computerized medical information make nurses have higher job stress [3]. Job stress is further increased consistently under the environment with 24/7 patients nursing with shiftwork and recipients' demand for qualitative nursing care [4]. Job stress has a negative effect on physician and emotional health, which could lead to decreased job commitment and lower quality of nursing services [5]. Even when various experiences and moderate job stress could motivate nurses to enhance productivity and self-improvement, persistent job stress that an individual is difficult to handle would lead to burnout [6]. This burnout can eventually be an important factor in determining job turnover and job dissatisfaction. Thus, caring about the job stress of nurses for manpower maintenance and management does matter [7]. The job stress study of nurses who care for cancer patients showed the higher the job stress, the higher the burnout [8]. The study on nurses' shiftwork indicated that higher job stress level

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is positively associated with the intention to overturn. That is, job stress has a negative effect on burnout and overturn.

Nurses' higher level of job stress is responsive to depression and burnout [5]. Burnout is the state where human values, dignity, and willingness are eroded [9], while emotional burnout happens first among the main factors [10]. In addition, emotional burnout plays a mediating role in work overload and job turnover, and the more nurses feel workload, the more emotional burnout they experience [11]. Primarily, medical institutions need to pay attention to reducing emotional burnout, since nurses are mostly exhausted in emotion [1].

A study on emotional burnout of male nurses shows that emotional burnout was the leading cause for job turnover [12]. The higher level of emotional burnout is associated with the higher number of patients in charge per nurse, less nursing staffing, and less theater clinical experience. Literature indicates that nurses' emotional burnout is highly correlated with the lower quality of medical services and patients. Thus, approaches from organizational perspectives is necessary, in order to reduce emotional burnout [10].

The study aims to provide the basic data for the mediating-strategic program to reduce clinical nurses' emotional burnout by figuring out the degree of job stress and emotional burnout, and by identifying the factors that affect the burnout.

2. STUDY OBJECTIVES

The purpose of this study is to investigate the level and causes of clinical nurses' emotional burnout. The specific purposes are the following:

- 1) to identify the degree of job stress and burnout according to study participants' general characteristics,
- 2) to identify the correlation between job stress and burnout,
- 3) to identify the factors cause emotional burnout.

3. METHODOLOGY

3.1 Research Design

This study is a descriptive search to identify the factors affecting burnout among clinical nurses working in a university hospital.

3.2 Data Collection

The study participants are clinical nurses working in a university hospital. The data were collected from 1st Dec. 2021 to 25th Dec. 2021, and the researcher explained the purpose and method of the study to the head of the department of the research participating institution, and then distributed the questionnaire to the research participants with approval. The participants were able to withdraw at any time during the study and explained as no disadvantage. The sample size calculated using the G*power 3.1.9 program was 171 participants with the significance level of multiple regression analysis .05, the effect size of the intermediate level .15, the power .90, and the predictive variables. The questionnaire was distributed to 196 people considering the dropout rate and 187 responses were finally analyzed after excluding insincere responses.

3.3 Measurements

1) Job Stress

The Korean Occupational Stress Scale Short Form (KOSS-SF) developed by Chang and Koh [13] was used

as a measurement tool for job stress. The 24 questions composed of the Likert 4-point scale are “Very Yes” 4 points and “Not At All” point, which means the higher the score, the higher the job stress. The reliability of the tool was .82 in Chang and Koh [13], and Cronbach’s alpha was .83 in this study.

2) Emotional Burnout

Maslach Burnout Inventory (MBI) developed by Maslach and Jackson [9] was used for emotional burnout with translating into Korean by Choi [14] measured only emotional burnout questions by Song [5] among standardized tools. The total of 9 questions was Likert 5 points, “Very Yes” and “Not At All”, which means the higher the score, the higher the emotional burnout. The reliability of the tool was .94 Cronbach’s alpha in the study of Song [5] and .89 Cronbach’s alpha in this study.

4. STATISTICAL ANALYSIS

The collected data was analyzed by IBM SPSS 21.0 statistical program. The general characteristics and research variables were used for descriptive statistics. The difference of research variables according to general characteristics was verified by the Independent t-test, one-way ANOVA, and the post-test was done by the Scheffe test. The relationship with the research variables was applied to correlation analysis and multiple regression analysis was to the factors affecting emotional burnout.

5. RESULTS

5.1 Differences between job stress and burnout according to the general characteristics

Job stress followed by the general characteristics showed statistically significant difference in age ($F=3.25$, $p=.041$), position ($t=2.67$, $p=.008$), and patient face-to-face ($t=2.10$, $p=.037$). Age in 30s compared to 40s or older, staff nurses compared to charge nurses, and patient contact post compared to non-contact post were more likely to have job stress. Emotional burnout according to the general characteristics had no statistically significant difference.

5.2 Degree in Job Stress and Emotional Burnout

The job stress and emotional burnout of the study participants are shown in Table 2. The average score for job stress level was $2.50 \pm .37$ out of 4. The sub-areas of job stress are job demand, insufficient organizational system, lack of reward, insufficient job control, occupational climate, job insecurity, and interpersonal conflict. The average emotional burnout was $3.29 \pm .85$ out of 5.

5.3 Correlation between job stress and emotional burnout

Table 3 shows the correlation between job stress and emotional burnout of clinical nurses. Job stress showed a positive correlation with emotional burnout ($r=.53$, $p<.001$). The correlation between sub-areas of job stress and emotional burnout was as follows: job insecurity ($r=.55$, $p<.001$), Job demand ($r=.51$, $p<.001$), occupational climate ($r=.51$, $p<.001$), lack of reward ($r=.31$, $p<.001$), insufficient organizational system ($r=.31$, $p<.001$), interpersonal conflict ($r=.17$, $p<.001$).

Table 1. Differences between job stress and emotional burnout according to general characteristics

Characteristics	Category	N	Job stress		Emotional burnout	
			M±SD	t/F(p)	M±SD	t/F(p)
Gender	Male	15	2.44±.37	-.64(.523)	3.20±.70	-.46(.645)
	Female	172	2.50±.37		3.30±.87	
Age (year)	The 20s	90	2.50±.36	3.25(.041) b>c	3.38±.81	1.18(.310)
	The 30s	57	2.58±.38		3.27±.85	
	≥40s ^c	40	2.39±.36		3.13±.93	
Education	Bachelor	174	2.50±.37	-.74(.460)	3.29±.86	-.33(.973)
	Graduates Or Higher	13	2.42±.36		3.29±.72	
Position	Staff	167	2.52±.37	2.67(.008)	3.29±.85	-.32(.753)
	≥ Charge	20	2.29±.26		3.35±.92	
Patient contact	Yes	169	2.52±.37	2.10(.037)	3.27±.84	-.95(.342)
	No	18	2.32±.32		3.48±.97	
Length of career (year)	< 3	50	2.50±.37	.05(.590)	3.39±.80	.83(.436)
	3-5	34	2.56±.36		3.37±.81	
	≥ 6	103	2.48±.37		3.22±.85	
Work department	OPD	23	2.50±.38	.018(.982)	3.30±.94	.34(.710)
	Ward	52	2.51±.41		3.37±.88	
	Special	112	2.50±.35		3.25±.83	

Table 2. Subject's job stress and emotional burnout

Variable	Categories	M±SD	Range
KOSS	Job demand	3.18±.57	1-4
	Insufficient job control	2.35±.50	
	Interpersonal conflict	1.96±.57	
	Job insecurity	2.08±.80	
	Organizational system	2.68±.62	
	Lack of reward	2.62±.66	
	Occupational climate	2.32±.65	
	Total	2.50±.37	
Emotional burnout		3.29±.85	1-5

Table 3. Correlation between job stress and emotional burnout

Variable	1	2	3	4	5	6	7
	r(p)						
8	.51 ($<.001$)	-.05 (.514)	.17 ($<.001$)	.55 ($<.001$)	.31 ($<.001$)	.31 ($<.001$)	.51 ($<.001$)

1. Job demand; 2. Insufficient job control; 3. Interpersonal conflict 4. Job insecurity;
5. Organizational system; 6. Lack of reward 7. Occupational climate; 8. Emotional burnout

5.4 Factors affecting emotional burnout

Stepwise multiple regression analysis was conducted to investigate the factors affecting emotional burnout. As a result of the multicollinearity test of research variables, the tolerance limit was 0.51-0.91, which was above 0.1, and the variance inflation factor (VIF) was 1.10-1.93, below the standard value of 10 that multicollinearity was found to be no problem. Durbin-Watson, 2.076, was close to 2, which confirmed the independence in the adjacent error term. The model's goodness of fit was statistically significant ($F=37.59$, $p<.001$), occupational climate ($\beta=.27$, $p<.001$), lack of reward ($\beta=.12$, $p=.040$) were the factors affection emotional burnout and explanatory power was 44%.

Table 4. Effect of emotional burnout of subjects

Variable	B	SE	β	t	p
Constant	-.12	.31		-.40	.69
Occupational climate	.09	.02	.27	4.09	$<.001$
Job demand	.14	.02	.37	6.35	$<.001$
Job insecurity	.11	.03	.21	3.26	.001
Lack of reward	.05	.03	.12	2.07	.040

$F=37.59$, $p<.001$, $R^2=.45$, $Adj R^2=.44$

6. DISCUSSION

This study was designed to provide basic data for the development of a manpower maintenance and management program for clinical nurses by figuring out the degree of emotional burnout and identifying the factors affecting the emotional burnout working in a university hospital. The result of the study showed the average score for job stress was 62.5 out of 100 scales (2.5 out of 4 scales) compared to 72.8 points in the study of Hong and Kim [7] for nurses taking care of cancer patients, 61 points in the study of Jeong [3] for nurses in general wards, 72.6 points in the study of Kang [12] for male nurses, and 89.17 points in the study of Kwak and Hyun [15] for nurses working in comprehensive nursing care service ward – each study presents differences in job stress. Since nurses provide care for patients with physical and mental illnesses, it is considered a difference in the degree of job stress perceived by nurses according to the severity of patients and occupational climate. In the sub-area of job stress, job demand indicates the highest, in another hand, interpersonal conflict was the lowest, which was the same result as the study of Song [5]. In the study of Hong and Kim [7], however, the lack of expertise and skills was the highest, indicating that each study has a difference.

The differences in job stress according to the general characteristics were found in age, position, and patient contact. The study of Ko and Kang [2] had differences in age, work department, salary level, shift work, etc., which showed a slight gap in each study. In this study, the job stress was higher in the 30s in age than in the 40s, but in the study of Ko and Kang [2], the job stress was high in the 26-30s, which was different from this study.

The result of the study revealed that emotional burnout was 65.8 out of 100 scales (3.29 out of 5). Similar results were found in the study of Song [5] with 64.8 and Hang and Kim [7] with 64.6. Also, the study had no significant differences in emotional burnout followed by general characteristics, which is consistent with the results of this study [3] that influence emotional burnout by the use of electronic medical records. However, a study [7] on nurses working in cancer wards had differences in gender, marital status, age, clinical experience, and position. Thus, replication studies on the effects of general characteristics on emotional burnout according to the subjects and the purpose of the study must be proceeded with.

The correlations between sub-areas of job stress and emotional burnout showed positive in job insecurity, job demand, occupational climate, lack of reward, insufficient organizational system, and interpersonal conflict. This result was close to the study of Jeong [3] and Song [5] - higher job insecurity; job demand; lack of reward; insufficient organizational system; interpersonal conflict, and higher emotional burnout. As a result, the organizational aspect of medical institutions is more important than the personal aspect of emotional burnout management.

The factors affecting emotional burnout of nurses are occupational climate, job demand, job insecurity, and lack of reward, in which their explanatory power was 44%. Job stress was the highest in the study of Hong and Kim [7], which is close to this study. The high level of job stress had negative effect not only on personal life but also on the quality of nursing and patient satisfaction through the degradation of organizational commitment. Particularly, the higher the job stress, the higher the emotional burnout. So the active administrative and financial support of the management has to be done, in order to reduce the job stress of the nurses. Occupational climate, job demand, job insecurity, lack of reward in the factors affecting emotional burnout are complicated areas for individuals or department managers to improve. Especially, nursing bullying of the organization is difficult to progress in an occupational climate. Therefore, reducing emotional burnout by systematically analyzing, establishing an improvement strategy for the job stress of nurses in the whole organization is to be done. Factors affecting the turnover of nurses have come out of emotional burnout in the study of Kang [12] Therefore, lowering emotional burnout is everything.

Every medical institution is recently facing difficulties in manpower management elevating the turnover of nurses. Medical institutions are composed of more than 40% of nurses. Since the high level of turnover in nurses has a negative effect on patient safety and medical institution competitiveness, the policy of maintenance manpower do matter. Establishing strategies for improvement in the sub-areas of job stress that affect emotional burnout: occupational climate, job demand, job insecurity, and lack of reward is everything in reducing emotional burnout, the main cause, which is necessary to cut the percentage of turnover of nurses.

The significance of this study is the contribution of providing basic data for the development of nurses' manpower maintenance programs and analyzing the factors affecting the emotional burnout of nurses working in a university hospital.

7. CONCLUSION

This study was conducted to analyze the factors affecting emotional burnout of nurses working at a university hospital and to provide basic data for the development of a manpower maintenance program for nurses. As a result, the factors affecting the emotional burnout of nurses were occupational climate, job demand,

job insecurity, and lack of reward. Therefore, in order to decrease the emotional burnout of nurses in days to come, it is necessary to revise the coercive occupational climate, arrange appropriate job assignments through job analysis, secure job stability through steady employment, and prepare an appropriate compensation system by job performance.

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