

# Influence of Job Satisfaction and Burnout on Nursing Service Quality in Long-Term Care Hospitals

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## Abstract

**Background/Objectives:** This study was performed to investigate the effects of job satisfaction and burnout on nursing service quality in long-term care hospital.

**Methods/Statistical analysis:** Participants were 120 nurses working at 10 long-term care hospitals. Data were collected from August to September, 2017. The collected data were analyzed using SPSS 22.0

**Findings:** Job satisfaction was different according to total clinical experience, career in present hospital, and monthly income. Burnout was different according to age, marital status, total clinical experience, monthly income, and pattern of shift. Nursing service quality was different according to monthly income, and pattern of shift. There were significant correlations among job satisfaction, burnout and nursing service quality. Factor influencing nursing service quality was burnout and explanatory power was 33.6%.

**Improvements/Applications:** In order to improve the nursing service quality, it is important to create an environment where nurses can work long-term and reduce burnout.

**Keywords:** Job satisfaction, Burnout, Exhaust, Nursing service quality, Long-term care hospital

## Introduction

In the medical service sector, the nursing workforce is involved in most medical service areas at the point of contact with the patient. Therefore, both nurse- and patient-related factors can have significant influence on nursing service quality. Because nursing service is a strategic factor determining the productivity and competitiveness of nursing units at hospitals and is also a factor affecting the perception of nursing care by its consumers, it is essential to improve nursing service [1]. However, many previous studies have shown that nurses suffer from burnout due to accumulated fatigue and stress due to such factors as excessive workload and interpersonal conflict, and that such job burnout reduces work efficiency and organizational productivity, resulting in reduced nursing service quality [2]. In addition, burnout can have other negative consequences

such as lowered job satisfaction. Job satisfaction drives nurses to have pleasant and positive attitudes toward their work, which affects the quality of nursing care for patients [3]. Reduced job satisfaction can not only affect nursing service quality but also results in turnover, which can be extended to the problem of supply and demand of the nursing workforce and human resource management. 4

Most domestic studies on nursing service quality conducted up to now have focused on the assessment of nursing service quality from the consumer's perspective, such as nursing care customer satisfaction, revisit intention, and perception gap in nursing service between customers and providers, and on the assessment of the economic profits of hospitals [1,4]. However, studies on factors affecting nursing service quality from the perspective of nursing providers have not been widely conducted. For quality management in nursing services from the perspectives of nursing providers, this study aimed to investigate the effects of job satisfaction and burnout on nursing service quality, and to provide basic

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data for nursing human resource management.

## Method

### 1. Study design

The present study was a descriptive correlational study designed to examine the relationship between job satisfaction, burnout, and the nursing service quality among nurses in long-term care hospital.

### 2. Participants

Participants in this study were 126 nurses from 10 long-term care hospitals. The study was conducted between August and September of 2017. The sample size was calculated using G\*Power 3.1.9.2. Based on linear multiple regressions with the effect size .15, significance level of .05, and power of test of .95, the sample size calculated was larger than the recommended size of 74; thus, it satisfied the requirement. One hundred twenty (95.2%) questionnaires were used for final data analysis, excluding six that was considered inadequate.

### 3. Instruments

#### 3.1. General characteristics

General characteristics were age, career in present hospital, total clinical experience, marital status, educational background, monthly income, and pattern of shift.

#### 3.2. Job satisfaction

Job Satisfaction was measured using the Minnesota Satisfaction Questionnaire<sup>[5]</sup> developed by Minnesota Industrial Research Institute, translated by Lee and Park<sup>[6]</sup> and supplemented by Choi<sup>[7]</sup>. A total of 15 items were rated on a 5-point Likert scale, ranging from “very unsatisfied” (1 point) to “very satisfied” (5 points). A higher score indicates higher job satisfaction. The reliability of this tool was calculated to be .69 in a study<sup>[7]</sup> and .827 in the present study.

#### 3.3. Burnout

Burnout was measured using Maslach Burnout Inventory developed by Maslach and Jackson<sup>[8]</sup>, and translated by Choi and Chung<sup>[9]</sup>. This tool consists of a total of 22 items, and each item is rated on a 7-point Likert scale, ranging from “never” (0 points) to “every day” (6 points). A higher score indicates higher burnout. The reliability of this tool was calculated to be .84 in a

study<sup>[9]</sup> and .906 in the present study.

### 3.4. Nursing service quality

A nursing service quality was developed by Joo<sup>[10]</sup> to measure the quality of Korean nursing services based on the SERVPERF model developed by Cronin and Taylor<sup>[11]</sup>, and the tool that was modified and supplemented by Lee<sup>[12]</sup>. This tool consists of a total of 20 items, and each items is rated on a 5-point scale, ranging from “strongly disagree” (1 point) to “strongly agree” (5 points). A higher score indicates higher quality of service. The reliability of this tool was calculated to be .97 in a study<sup>[12]</sup> and .938 in the present study.

### 4. Analysis

Data were analyzed using SPSS version 20.0 software according to the following analyses:

1) The differences in job satisfaction, burnout, and nursing service quality according to the general characteristics of the participants were analyzed using t-test and analysis of variance, and the post-hoc test was performed using the Scheffé test.

2) Pearson’s correlation coefficients were calculated to examine the correlations between job satisfaction, burnout, and nursing service quality.

3) The factors that affect nursing service quality were analyzed using multiple regression analysis.

## Result

### 1. General characteristics

The participants of this study were 120 nurses, the majority (n=68 [56.7%]) of which were aged 40 to 50 years as shown in table1. The majority of the participants (n=104 [86.7%]) were married. In terms of education level, the majority (n=72 [62%]) were junior college graduates. The proportion of those with more than 15 years of total clinical experience was the highest (41.7%). In terms of years at the current long-term care hospital, 40 (33.3%) had worked at the hospital for less than 5 years, 42 (35%) had worked at the hospital for 2-5 years, and 38 (31.7%) had worked at the hospital for more than 5 years. The majority of the participants (n=87 [72.5%]) had an average monthly income of 2-2.5 million South Korean won (KRW). In terms of shift pattern, the number of those with 3-shift work was 58 (48.3%).

**Table 1: General characteristics (N=120)**

Characteristics	Categories	n(%)
Age(year)	< 40	28(23.3)
	40 - < 50	68(56.7)
	≥ 50	24(20.0)
Marital status	Unmarried	16(13.3)
	Married	104(86.7)
Educational background	Diploma	72(60.0)
	Bachelor	38(31.7)
	Higher than a master's degree	10(8.3)
Total clinical experience(year)	< 7	36(30.0)
	7 - < 15	34(28.3)
	≥ 15	50(41.7)
Career in present hospital(year)	< 2	40(33.3)
	2 - < 5	42(35.0)
	≥ 5	38(31.7)
Monthly income (Won)	< 200	18(15.0)
	201 - < 250	87(72.5)
	≥ 250	15(12.5)
Pattern of shift	3 shift work	58(48.3)
	2 shift work	12(10.0)
	Fixed	50(41.7)

## 2. Differences in variables by general characteristics

Table 2 shows the differences in job satisfaction, burnout, and nursing service quality according to the general characteristics of the participants. A significant difference was observed in job satisfaction according to total clinical experience ( $F=9.786$ ,  $p<.001$ ), number of years at the current hospital ( $F=3.966$ ,  $p<.001$ ), and average monthly income ( $F=9.203$ ,  $p<.001$ ). The results of the post-hoc test revealed that the score for job satisfaction was higher in those with more than 15 years of total clinical experience compared with those with less than 7 years of total clinical experience, in those who had been at the current hospital for more than 5 years compared with those who had been at the current hospital for less than 2-5 years, and in those with an average monthly income of more than 2.5 million KRW compared with those with an average monthly income of less than 2 million KRW.

A significant difference was observed in burnout according to age ( $F=7.664$ ,  $p=.001$ ), marital status ( $t=2.100$ ,  $p=.037$ ), total clinical experience ( $F=7.935$ ,  $p=.001$ ), average monthly income ( $F=4.493$ ,  $p=.013$ ) and shift pattern ( $F=3.721$ ,  $p=.027$ ). The results of the post-hoc test revealed that the score for burnout was higher in those under the age of 40 than in those over the age of 50, in those who were unmarried than in those who were married, in those with less than 7 years of total clinical experience than in those with more than 15 years, in those with an average monthly income less than 2 million KRW than in those with an average monthly income of more than 2.5 million KRW, and in those with 3-shift work than in those with fixed shift work.

A significant difference was observed in nursing service quality according to average monthly income ( $F=4.445$ ,  $p\leq.014$ ) and shift pattern ( $F=6.988$ ,  $p=.001$ ). The results of the post-hoc test revealed that the score for nursing service quality was higher in those with an average monthly income of more than 2.5 million KRW than in those with an average monthly income of 2-2.5 million KRW and in those with fixed shift work than in those with 3-shift work.

**Table 2: Differences variables by general characteristics (N=120)**

Characteristics	Categories	Job satisfaction		Burnout		Nursing service quality	
		Mean±SD	t/F	Mean±SD	t/F	Mean±SD	t/F
Age(year)	< 40a	3.13±0.50	1.637	2.52±0.64	7.664*** a>c	3.77±0.42	0.788
	40 - < 50b	3.25±0.59		2.08±0.90		3.72±0.40	
	≥ 50c	3.42±0.63		1.61±0.83		3.85±0.52	
Marital status	Unmarried	3.14±0.51	-0.860	2.51±0.77	2.100*	3.64±0.31	-1.110
	Married	3.27±0.59		2.02±0.88		3.78±0.47	
Educational background	Diplomaa	3.24±0.62	2.717	2.12±0.88	0.519	3.72±0.44	0.801
	Bachelorb	3.18±0.47		2.10±0.89		3.78±0.47	
	Higher than a master's degreec	3.65±0.59		1.82±0.81		3.91±0.45	
Total clinical experience(year)	< 7a	2.95±0.59	9.786 *** a<c	2.48±0.87	7.935 *** a>c	3.64±0.34	1.970
	7 - < 15b	3.24±0.52		2.15±0.71		3.77±0.46	
	≥ 15c	3.48±0.53		1.77±0.87		3.83±0.50	
Career in present hospital(year)	< 2a	3.31±0.60	3.966 * b<c	2.10±0.96	2.537	3.74±0.37	0.568
	2 - < 5b	3.06±0.62		2.29±0.77		3.72±0.47	
	≥ 5c	3.40±0.47		1.85±0.14		3.82±0.51	
Monthly income (Won)	< 200a	2.92±0.65	9.203 *** a<c	2.52±0.74	4.493 * a>c	3.71±0.38	4.445 * b<c
	201 - < 250b	3.24±0.53		2.08±0.90		3.71±0.46	
	≥ 250c	3.73±0.50		1.62±0.62		4.07±0.37	
Pattern of shift	3 shift worka	3.16±0.60	1.704	2.30±0.90	3.721 * a>c	3.62±0.49	6.988 *** a<c
	2 shift workb	3.42±0.58		2.04±0.72		3.71±0.29	
	Fixedc	3.33±0.56		1.85±0.83		3.93±0.38	

unit: cm, \*: p&lt;0.05, \*\*: p&lt;0.01, \*\*\*: p&lt;0.001

**3. Degree and correlation among variables**

The mean scores for job satisfaction, burnout, and nursing service quality among the participants was 3.25, 2.09, and 3.76 points, respectively as shown in table 3. The nursing service quality is significantly correlated with job satisfaction ( $r = .397, p < .001$ ), with burnout ( $r = -.579, p < .001$ ).

**Table 3: Degree and correlations among variables (N=120)**

	M±SD	Range	Job satisfaction	Burnout
			r	r
Job satisfaction	3.25±0.58	1-5	-	-.526***
Burnout	2.09±0.88	0-6	-.526***	-
Nursing service quality	3.76±0.45	1-5	.397***	-.579***

unit: cm, \*:  $p < 0.05$ , \*\*:  $p < 0.01$ , \*\*\*:  $p < 0.001$

**4. Factors influencing nursing service quality**

To identify the explanatory power of factors related to the quality of nursing service, a linear regression analysis was conducted with nursing service quality as the dependent variable, an with job satisfaction and burnout as the independent variables. Burnout ( $\beta = -.512, p < .001$ ) had a significant influence on the nursing service quality, with an explanatory power of 33.6% in table 4.

**Table 4: Factors influencing nursing service quality (N=120)**

Variables	$\beta$	p	Adj.R2	F
Job satisfaction	.127	.151	.336	31.073***
Burnout	-.512	.000		

unit: cm, \*:  $p < 0.05$ , \*\*:  $p < 0.01$ , \*\*\*:  $p < 0.001$

**Discussion**

This study found that there were significant differences in job satisfaction according to number of

years of clinical experience, number of years at the current hospital, and average monthly income. These results are consistent with the results of a study [13] showing a significant difference in job satisfaction according to clinical experience among nurses in tertiary hospitals, and the results of a study [14] showing a significant difference in job satisfaction according to clinical experience and wages among general hospital nurses. Therefore, in order to enhance job satisfaction in nurses, it is essential to provide economic satisfaction by guaranteeing adequate wages, and to provide conditions for nurses to build their career until they become skilled at the job.

The results of this study also found that there was a significant difference in nursing service quality according to average monthly income and shift pattern. In other words, nursing service quality was found to be significantly higher in those with fixed shift work, which is consistent with the results of a previous study [13] showing that nursing service quality was significantly higher in general hospital nurses who did not work at night. In addition, these results are similar to the results of a study [14] indicating that nursing performance in general hospital nurses differed according to wage levels. Therefore, in order to improve nursing service quality, it is necessary to reduce night shifts, increase fixed shift work, and offer appropriate wages to nurses.

The results of this study showed that nursing service quality was significantly positively correlated with job satisfaction, and that burnout was a variable with a 33.6% influence on nursing service quality. These results are consistent with the results of a previous study involving public health nurses [16] and another previous study involving general hospital nurses [13] showing that job satisfaction was positively correlated with nursing service quality, although there was a difference in the subjects between the studies. The results of this study are also supported by those of a previous study [15] that found that burnout was positively correlated with nursing service quality among nurses in comprehensive nursing care wards.

Physical and emotional exhaustion can lower nursing service quality. Therefore, in order to improve nursing service quality in long-term care hospitals, it is necessary to manage nursing human resources through increasing regular shift work, providing proper conditions for career building, and, thus, proactively reducing burnout among nurses.

## Conclusion

Job satisfaction was found to be significantly higher and burnout was lower in those with significantly more clinical experience. Therefore, inducing nurses to work long-term and enhancing their nursing job satisfaction are ways to improve nursing service quality.

**Ethical Clearance:** Not required

**Source of Funding:** Self

**Conflict of Interest:** Nil

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