

## ORIGINAL RESEARCH

# Effects of job stress and coping behaviour on job satisfaction in Korean male nurses

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## Abstract

**Purpose:** The purpose of this study was to investigate the effects of job stress and coping behaviour on job satisfaction in Korean male nurses.

**Methods:** The structured questionnaires were used for the survey of 73 male nurses who worked in hospitals located in B and S City in South Korea. To measure job stress, we used a Korean job stress scale. To measure coping behaviour, we used an instrument developed by Han & Oh (1990), and for job satisfaction, an instrument developed by Kim (2010). The data were analysed using PASW 18.0 (Chicago, USA), including descriptive statistics, independent sample t-tests, and ANOVAs.

**Results:** The results showed mean job stress score of 3.27, mean coping behaviour score of 3.14 and mean job satisfaction score of 3.28 (all scores on a 5-point scale). Job satisfaction was positively correlated with coping behaviour ( $r = 0.426, p < .001$ ), but was not correlated with job stress. In addition, job satisfaction was higher among subjects with coping behaviour scores in the highest quartile than among those with coping behaviour scores in the lowest quartile ( $t = -2.881, p = .007$ ).

**Conclusion:** Coping behaviour was found to be a relevant factor influencing the job satisfaction of male nurses. Thus, an environment and workplace culture that allows male nurses to develop and apply their coping ability must be cultivated in order to promote job satisfaction.

## Key words

Job stress, Coping, Job satisfaction, Male nurse

## 1 Introduction

There has recently been a surge in the demand for medical care due to social trends such as the diversification of the population structure, increased awareness of entitlement, and changes in the social system. This has been accompanied by a rising demand for nursing manpower. Nurses, who are the largest professional workforce in hospitals, have become an essential factor in improving the efficiency and competitiveness of hospitals.

Recently, a growing number of male students have been applying to nursing departments in universities amidst increased unemployment and a social trend towards the selection of jobs that match the aptitude of applicants regardless of gender stereotypes. This can be attributed to increased flexibility in attitudes towards various occupations and the expansion of perception towards occupational professionalism<sup>[1]</sup>. As a result, the number of male nurses has increased. In Korea, there are 6,202 male nurses, accounting for 2.0% of 308,620 licensed nurses. The number of licensed male nurses has increased continuously over the last five years, reaching 829 in 2004, 1,292 in 2006, 2,128 in 2008, 3,387 in 2010, and 6,202 in 2013. Four thousand seventy four male nurses have obtained licenses in the last five years accounting for 66% of all male nurses<sup>[2]</sup>. Perspectives toward gender roles remain conservative in Korea. Such an increase in the number of male nurses represents a significant change in the nursing sector, especially considering that gender stereotypes have traditionally had a great influence on job selection. This large number of newly licensed male nurses represented a valuable human resource that can meet a variety of nursing needs and improve of the quality of medical care. The increased presence of men in the nursing field may also lead to the elimination of prejudicial beliefs that nursing is a female occupation and the reduction of administrative and economic disadvantage arising from gender discrimination in hospitals<sup>[3-5]</sup>.

Although an increasing number of men select careers in nursing for the aforementioned reasons, the number of men dropping out of the nursing field is also growing. Reasons for this include inadequate salaries, lack of opportunities for promotion, problematic relationships with colleagues of the opposite sex, confusion over the role of male nurses, and lack of opportunities for self-development<sup>[6-8]</sup>.

Conflicts result from uncertainty over the roles, obligations, and responsibilities of male nurses; lack of understanding on the part of the patients and medical staff; and employment status of hospital, especially when there is an inadequate perception towards the job of male nurses that comes under the category of professional occupation. Under such circumstances, male nurses are likely to have low job satisfaction and sometimes consider quitting despite the possibility that their professional skills can improve. In addition, women are far better positioned in the nursing sector than their male counterparts, dominating this occupation. The steady increase in the number of male nurses has brought many difficulties associated with their minority status as they engage in work that has traditionally been considered a job only for women<sup>[9-11]</sup>. Thus, it is necessary to increase the job satisfaction of male nurses in order to ensure that they can provide satisfactory care to patients.

Studies on job stress, coping behaviour, and job satisfaction have been conducted in many different areas of nursing. A study conducted among operating room nurses in Taiwan<sup>[12]</sup> found that job satisfaction had a negative relationship with destructive coping strategies and with job stress. In addition, a study on Australian nurses found that coping strategies appeared to have a mediating effect on job satisfaction and stress resulting from organizational changes<sup>[13]</sup>. Moreover, a study conducted among Turkish nurses<sup>[14]</sup> found that high job satisfaction was strongly related to positive coping strategies. Studies have investigated various demographic characteristics associated with job satisfaction and related factors among Chinese hospital and ICU nurses<sup>[15, 16]</sup>. Although some studies have examined the job or role stress of male nurses<sup>[17, 18]</sup>, few have investigated the specific relationship among job satisfaction, job stress, and coping behaviour.

Many studies on male nurses have been conducted worldwide, using both qualitative and quantitative methods, but research in this field remains at an inchoate stage in Korea. Previous studies on men in the nursing profession have focused on topics such as gender stereotypes and the work experience<sup>[19, 20]</sup> and job satisfaction<sup>[21]</sup> of male nurses. Further research is needed to determine how job satisfaction among male nurses can be improved.

## Purpose

This study investigates the relationship among job stress, coping behaviour, and job satisfaction in male nurses in Korea with a specific focus on the effects of job stress and coping behaviour on job satisfaction. By identifying factors related to job satisfaction in male nurses, this study aims to provide basic data necessary for maintaining the quality of the nursing workforce and ensuring efficient management of human resources in order to ensure that male nurses can have a greater

sense of accomplishment and job satisfaction in the workplace. The specific objectives are as follows: (1) measure the levels of job stress, coping behaviour, and job satisfaction in male nurses; (2) determine the effects of job stress and coping behaviour on job satisfaction.

## 2 Subjects and methods

### 2.1 Design, setting and participants

This is a descriptive study intended to measure the extent of job stress, coping behaviour, and job satisfaction in male nurses in Korea and examine the effect of job stress and coping behaviour on job satisfaction. The subjects were male nurses working in hospitals with more than 300 beds located in 'B' city and 'S' city, South Korea. Data collection was carried out from June to August 2012. Subjects were recruited using the snowball sampling method, in which existing subjects recruit new subjects. A structured questionnaire consisted of questions regarding demographic characteristics, job stress, coping behaviour, and job satisfaction. The questionnaire took approximately 10-15 minutes to complete.

### 2.2 Ethical considerations

Approval was obtained from the nursing department at a general and teaching hospital. In accordance with guidelines for the protection of human subjects, the purpose and procedure of the study were explained to the subjects by a researcher. Participants gave informed consent prior to participating in the study. All participant information was processed anonymously.

### 2.3 Measurements

**Demographic characteristics:** The questionnaire used to collect information on demographic characteristics consisted of 8 items regarding participants' age, marital status, type of work, years of work experience, type of shift work, assigned department, type of hospital, and their reason for choosing to be a nurse.

**Job stress:** This study used the tool developed by Kim (2010)<sup>[22]</sup> who modified Korean job stress tool created by Chang *et al.* 2005<sup>[23]</sup>. The questionnaire consisted of 40 questions measuring 7 subfactors: job requirements, relationship conflict, organizational structure, inappropriate reward, autonomy of job, masculine sexual characteristics, and occupational instability. Subjects recorded their responses to each item on a 5-point Likert scale, ranging from '5', indicating 'completely agree' to '1', indicating 'completely disagree'. Higher scores represent more severe job stress. Cronbach's alpha, an indicator of reliability, was 0.931 for this instrument.

**Coping behavior:** This study used an instrument developed by Han & Oh (1990)<sup>[24]</sup>, who translated and modified an instrument created by Lasarus & Folkman (1984)<sup>[25]</sup>, to measure coping behaviour. This instrument consisted of 29 items measuring 6 factors: problem-oriented behaviour (7 items), hope/expectation (4 items), disinterest (4 items), social support (7 items), positive viewpoint (4 items), and release of tension (3 items). Subjects recorded their responses to each item on a 5-point Likert scale, ranging from '5', indicating 'completely agree' to '1', indicating 'completely disagree'. Higher scores represent better coping behaviour. Cronbach's alpha was 0.805 for this instrument.

**Job satisfaction:** This study used an instrument developed by Kim (2010)<sup>[22]</sup>, who translated and modified an instrument created by Slavitt, Stamps, Piedmont, & Haase (1978)<sup>[26]</sup>. This instrument consisted of 26 items measuring 7 factors: occupation, remuneration, organizational characteristics, interaction, job requirements, autonomy, and relationship with physicians. Items were scored on 5-point likert scale. Subjects recorded their responses to each item on a 5-point Likert scale, ranging from '5', indicating 'completely agree' to '1', indicating 'completely disagree'. Higher scores represent greater job satisfaction. Cronbach's alpha was 0.891 for this instrument.

## 2.4 Statistical analyses

The data were analyzed by PASW 18.0 (Chicago, USA). General characteristics and scores on measures of job stress, coping behaviour, and job satisfaction were analyzed by percentage, mean value, and standard deviation. Differences in scores between groups defined by general characteristics were analyzed using an independent sample *t*-test or ANOVA. Scheffe test was used for post-hoc comparisons. Relationships between variable were analyzed with Pearson's correlation. Differences in job satisfaction between the highest- and lowest-scoring quartiles (representing the highest and lowest 25% of scorers, respectively) with regard to job stress and coping behaviour were analyzed using the independent samples *t*-test. The significance level of the data was verified at the level of  $p < .05$ .

## 3 Results

### 3.1 General characteristics of participants, job stress, coping behaviour, and job satisfaction

The sample included in this study consisted of 73 male nurses. The average age of subjects was 27.8. Those who were unmarried accounted for 83.6%. Staff nurses comprised 80.8%. Those with more than 2 years of experience accounted for 16.4%. In regard to type of work-shift, 79.5% were working on a shift basis. Subjects were employed in a variety of departments, with 35.6% working in intensive care units and 26.0% working in emergency rooms. Regarding the type of hospital where subjects worked, 37.0% worked in tertiary hospitals (university hospitals), while 63.0% worked in secondary and primary hospitals (district hospitals). Regarding subjects' motivation for choosing to work as nurses, 47.9% cited job stability, while 31.5% were motivated by job expertise.

Participants had mean scores of  $3.27 \pm 0.55$  in job stress,  $3.14 \pm 0.46$  in coping behaviour and  $3.28 \pm 0.36$  in job satisfaction (all ranges: 1-5; see Table 1).

No general participant characteristics were significantly related to job stress scores, but some relationships were observed between various general participant characteristics and coping behaviour or job satisfaction. Higher coping behaviour scores were found in subjects who were married than in those who were unmarried ( $3.50 \pm 0.48 > 3.24 \pm 0.32$ ,  $t = -2.308$ ,  $p = .024$ ). Job satisfaction was higher in staff nurses than in the nurse specialists or physician assistants ( $3.21 \pm 0.46 > 2.85 \pm 0.33$ ,  $t = 2.309$ ,  $p = .024$ ). There was also a difference in job satisfaction according to type of work-shift. Subjects working on a 3-shift basis had higher job satisfaction than those holding full-time positions (not working shifts) ( $3.20 \pm 0.46 > 2.93 \pm 0.37$ ,  $t = -2.046$ ,  $p = .044$ ). Subjects' motivation for selecting nursing as an occupation was also related to their job satisfaction ( $F = 4.676$ ,  $p = .002$ ). In particular, those who chose nursing based on job expertise tended to have higher job satisfaction scores than those who chose nursing because of job stability ( $p = .011$ ) (see Table 1).

### 3.2 Effects of job stress and coping behaviour on job satisfaction

No correlation was found between job satisfaction and job stress ( $r = -0.047$ ,  $p = .702$ ). A positive correlation was observed between job satisfaction and coping behaviour ( $r = 0.426$ ,  $p < .001$ ) (see Table 2).

Differences in job satisfaction related to job stress and coping behaviour scores were also analyzed by comparing job satisfaction scores in the highest and lowest-scoring quartiles (representing the highest and lowest 25% of scorers, respectively) in both job stress and coping behaviour. No difference was found in job satisfaction scores between job-stress-score groups ( $t = 0.042$ ,  $p = .967$ ). A statistically significant difference was found in job satisfaction scores between the two coping-behaviour-score groups ( $3.53 \pm 0.53 > 3.09 \pm 0.37$ ,  $t = -2.881$ ,  $p = .007$ ) (see Table 3).

**Table 1.** General characteristics of participants and scores on job stress, coping behaviour, and job satisfaction

Variables	†n (%)	Job stress		Coping behaviour		Job satisfaction	
		Mean(SD) (range 1-5)	t or F (p)	Mean(SD) (range 1-5)	t or F (p)	Mean(SD) (range 1-5)	t or F (p)
Total		3.27(0.55)		3.14(0.46)		3.28(0.36)	
Age							
< 30 (years)	56(76.7)	3.26(0.55)	-0.326	3.24(0.36)	-1.939	3.11(0.45)	-1.052
≥30	17(23.3)	3.31(0.54)	(.745)	3.43(0.34)	(.057)	3.25(0.48)	(.297)
Marriage status							
Married	12(16.4)	3.35(0.67)	-0.563	3.50(0.48)	-2.308	3.34(0.62)	-1.593
Unmarried	61(83.6)	3.25(0.58)	(.576)	3.24(0.32)	(.024)*	3.11(0.42)	(.116)
Type of work							
Staff nurse	59(80.8)	3.31(0.55)	0.918	3.28(0.38)	0.759	3.21(0.46)	2.309
Specialist or PA	14(19.2)	3.14(0.59)	(.362)	3.19(0.25)	(.451)	2.85(0.33)	(.024)*
Years of work experience							
<2	59(80.8)	3.30(0.55)	0.555	3.27(0.39)	-0.621	3.16(0.47)	0.762
≥2 (years)	12(16.4)	3.14(0.59)	(.581)	3.34(0.18)	(.537)	3.05(0.41)	(.449)
Type of work-shift							
No-shift work	15(20.5)	3.12(0.52)	-1.199	3.27(0.29)	-0.091	2.93(0.37)	-2.046
3-shift	58(79.5)	3.31(0.55)	(.235)	3.28(0.28)	(.928)	3.20(0.46)	(.044)*
Working department							
ER	19(26.0)	3.26(0.53)	2.139	3.28(0.31)	1.530	3.18(0.40)	0.763
ICU	26(35.6)	3.41(0.46)	(.104)	3.25(0.35)	(.215)	3.19(0.45)	(.519)
OR & Anes	13(17.8)	3.36(0.63)		3.47(0.43)		3.19(0.57)	
Ward/outpatient/others	15(20.5)	2.98(0.55)		3.19(0.36)		2.98(0.43)	
Working hospital type							
Tertiary <sup>†</sup>	27(37.0)	3.26(0.53)	-0.146	3.30(0.41)	0.376	3.11(0.53)	-0.401
Primary & secondary <sup>††</sup>	46(63.0)	3.28(0.57)	(.884)	3.27(0.34)	(.708)	3.16(0.41)	(.690)
Motivation for the selection of nursing job							
Job stability (JS)	35(47.9)	3.33(0.52)	1.105	3.17(0.44)	1.923	2.96(0.28)	4.676
Job expertise (JE)	23(31.5)	3.20(0.59)	(.362)	3.44(0.43)	(.117)	3.39(0.58)	(.002)*
Recommendation from other people	6(8.2)	3.54(0.36)		3.32(0.44)		2.96(0.38)	JS>TE (p = .011)
Scarcity of male nurses	7(9.6)	2.92(0.21)		3.24(0.21)		3.37(0.40)	

Note. PA : physician assistant, SD: standard deviation, †:except no response, \* $p < .05$ ; ER: Emergency room, ICU: Intensive care unit, OR & Anes: Operation room & Anesthesiology, †: tertiary-University hospital, ††: primary and secondary- district hospital with over 300 beds, JS: Job stability, JE: Job expertise

**Table 2.** Correlation of job satisfaction with job stress and coping behaviour

	Job stress $r(p)$	Coping behavior $r(p)$
Job satisfaction	$r = -0.047$ ( $p = .702$ )	$r = 0.426$ ( $p < .001$ )*

\* $p < .05$

**Table 3.** Differences in job satisfaction associated with levels of job stress and coping behaviour

variables	group	Job satisfaction score	t(p)
Job stress	Upper quartile score group (n = 16)	3.17(0.58)	0.042
	Lower quartile score group (n = 17)	3.17(0.53)	(.967)
Coping behaviour	Upper quartile score group (n = 16)	3.53(0.53)	-2.881
	Lower quartile score group (n = 19)	3.09(0.37)	(.007)*

\* $p < .05$

## 4 Discussion

This study was conducted to gain a better understanding of factors that could help improve the job satisfaction of male nurses in Korea. The increase in the number of male nurses has led to a greater ability to meet diverse nursing requirements, and improvement of nursing care standards. It is necessary to understand the factors associated with job satisfaction and dissatisfaction in order to increase the efficiency of male nurses and allow them to advance professionally.

Participants' mean scores on measures of job stress (3.27), coping behaviour (3.14), and job satisfaction (3.28) were all considered to be above the intermediate level (2.5). Among the participants' general characteristics, the following were related to the coping behaviour and job satisfaction: marital status, type of work, type of work-shift and motivation for the selection of nursing as a career.

A study by Li and Lambert (2008)<sup>[16]</sup> showed that the education level of nurses, years of experience in nursing, and years of experience in the current area of work were the factors influencing workplace stress, coping methods, and job satisfaction. However, in this study, no difference was found in terms of age and years of experience. A study by Tzeng (2002)<sup>[27]</sup> suggested that salaries, promotions, the institution, educational background, and age all influenced work motivation and job satisfaction. In this study, there was a difference based on the type of institution. A study by Lu *et al.* (2007)<sup>[15]</sup> showed that organizational, professional, and personal variables can influence job stress, coping behaviour, and job satisfaction. In this study, staff nurses showed higher job satisfaction than specialists and physician assistants in connection with the type of work, which implies that the role conflict<sup>[12, 13]</sup> between specialists and physician assistants—the majority of whom are male nurses in Korean hospitals—could have an influence. Additionally, those working on three rotating shifts were found to have higher job satisfaction than those not working on shifts, which is contrary to the results of previous studies<sup>[28, 29]</sup> that have raised concerns about shift work. In addition, those who were motivated by professionalism to select the nursing occupation showed high job satisfaction. Moreover, marital status influenced coping behaviour. As most previous studies investigated female nurses, the characteristics of male nurses have not been investigated extensively. It is important to consider various situations facing male nurses in order to gain insight into their job stress, coping behaviour, and job satisfaction.

Correlation analysis was conducted to determine how job stress and coping behaviour were related to job satisfaction. A positive correlation was found between job satisfaction and coping behaviour. In other words, greater coping behaviour was associated with greater job satisfaction. These results were consistent with those from the analysis of the job satisfaction scores based on coping-behaviour-score group membership. The group with higher coping behaviour scores had higher job satisfaction scores. Our results were similar to those of a study conducted by Teo, Pick, Newton, Yeung & Chang (2013)<sup>[13]</sup> which focused on clinical nurses, finding that the coping strategy of the organization could be a factor leading to the improvement of job satisfaction in this group. Pisanti (2012)<sup>[30]</sup> found that emotion-oriented coping affected job satisfaction among the coping strategies. The coping behaviour investigated in this study included various behaviours by individuals to cope with stress, such as problem-oriented coping behaviour, hope and positive standpoint-based coping behaviour, social support system-based coping behaviour, relaxation or exercise for releasing tension, and mood control.

A study by Zhou and Hong (2013)<sup>[31]</sup> found that nurses preferred self-control as a coping strategy, while a study by Chen *et al.* (2009)<sup>[12]</sup> showed that programs and initiatives related to self-esteem were necessary to map out and implement constructive stress coping strategies. Meanwhile, a study by Tyson, Pongruengphant, and Aggarwal (2002)<sup>[32]</sup> showed that a positive correlation was observed between problem solving and job satisfaction. This shows that coping behaviour is a substantial factor that can influence job satisfaction. Thus, it is necessary to create an environment and culture within an organization that can help ensure that various coping methods can be applied by individuals.

However, job stress and job satisfaction were not found to be correlated in the current study. Furthermore, no difference was observed in job satisfaction score between score groups. These results are different from those of previous studies<sup>[33, 34]</sup> claiming that job stress and job satisfaction had either a negative or a positive correlation. To determine the

systematic relationship among these variables, it will be necessary to examine the relationship among specific aspects of job stress and job satisfaction in studies that include larger samples.

#### 4.1 Implications for clinical nursing

The Korean nursing sector has recently seen growth in the number of male nurses, but the management and role of male nurses have not been closely examined. To increase the efficiency of male nurses and increase their professional success, it is necessary to create a new and expanded role for male nurses that is clear and well defined. Amidst these changes, healthcare administrators should be aware of factors related to job satisfaction among male nurses and provide opportunities for them to improve their knowledge and skills so as to increase their job satisfaction. In particular, it is necessary to design programs that can help increase job satisfaction in order to create an environment and culture that allows male nurses to cope with the stress arising from the work they perform. In order to manage this workforce efficiently, the administrators of hospitals and nursing departments need to develop programs to improve the coping capability of individuals and apply such programs to human resources management systems, rather than using one-size-fits-all education and training programs targeting all nurses.

#### 4.2 Study limitation

The results of this study should be interpreted with care because male nurses in only two cities were included. Therefore, the generalizability of these results is limited. Future studies should attempt to replicate the current study using a greater number of subjects. Studies that succeed this one should also identify the unique characteristics of male nurses by comparing them to female nurses. In addition, it will be necessary to explore various cultural factors affecting the job satisfaction of male nurses.

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