

# 병원간호사의 간호실무환경, 업무-가족 갈등과 직무만족도와의 관계\*

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\* 이 논문은 2013학년도 원광대학교의 교비지원에 의해서 수행됨.

\* This paper was supported by Wonkwang University in 2013.

## **Relationship of Nurse Practice Environment and Work-Family Conflict to Job Satisfaction in Hospital Nurses in Korea\***

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### 주요어

직무만족도, 간호실무환경,  
업무-가족 갈등

### Key words

Job satisfaction, Nurse  
practice environment,  
Work-family conflict

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투 고 일: 2012년 8월 28일  
수 정 일: 2012년 12월 28일  
심사완료일: 2013년 1월 9일

### Abstract

**연구목적:** 본 연구는 병원간호사에게 보다 편안하고 건강한 업무환경을 제공하는 것의 중요성을 병원관리행정이, 교육가, 간호관리자에게 알려주는데 필요한 기초 자료를 제공하고자 수행하였다. **연구방법:** 연구진행에 동의한 5개의 종합병원을 선정하여 구조화된 설문지를 이용하여 2010년 7월에 자료를 수집하였다. **연구결과:** 직무만족도에 가장 큰 영향을 미치는 요인으로는 간호실무환경으로 긍정적인 영향을 미치는 것으로 나타났으며, 그 다음은 업무-가족 갈등으로 부정적 영향을 미치는 것으로 나타났다. 설명변수는 직무만족도를 39% 설명하는 것으로 나타났다. **결론:** 본 연구의 결과 간호실무환경과 업무-가족 갈등이 간호조직에서의 성과인 직무만족도에 중요한 요인으로 나타났다. 따라서 업무환경을 더 매력적으로 만들고, 업무-가족 갈등을 감소시키는 전략은 경력간호사의 보육과 질적 간호를 향상시키는데 도움이 될 것이다.

## INTRODUCTION

The concept of the Magnet hospital was initially developed by the American Academy of Nursing in the 1980s; thereafter, medical institutions that provide excellent nursing services were issued a Magnet certification, developed by the American Nurses Credentialing Center in 1994 (Sullivan &

Decker, 2009). At this time of decreasing number of nurses in the workforce, the Magnet hospital concept draws great attention and political interest and inspires investigation of the characteristics of employers in hospitals that are successful in the medical personnel market. Medical institutions that have been certified as Magnet hospitals have no problems in hiring and retaining nurses, despite a lack of nurses seeking

employment at the national level in the United States.

In recent times, there has been fierce competition among hospitals with regard to securing nurses, as the number of large-scale general hospitals in Korea has increased. The number of nurses who change jobs from small- and medium-sized hospitals in the provinces to larger hospitals located in Seoul or other metropolitan areas, seeking better wages and employee welfare conditions, is also increasing. According to research conducted with 184 Korean hospitals by the Hospital Nurses Association (2011), the average turnover rate of Korean nurses is 18.5%, and smaller hospitals have an even higher turnover rate. In hospitals with fewer than 200 beds, the turnover rate is as high as 37.3%. Due to the high turnover rate of nurses, the number of entrants to university nursing science departments across the entire country increases every year.

However, the policy of employing and retaining nursing staff by merely increasing the number of entrants to nursing science departments is excessively simple and shortsighted. This strategy alone will have no effect on the unacceptably high turnover rate of nurses working in hospitals. When nursing science students, who have completed their three or four years of training begin work in a hospital, they are exposed to a nurse-work environment that is greatly inferior to what they expect. Magnet hospitals are considered to possess healthy work environments. Gilmore (2007) suggested that such environments increase the job satisfaction of nurses and fulfill the pre-requisites for initially attracting, and subsequently retaining their services. In contrast, unhealthy work environments cause higher turnover rates and lead to a lower standard of nursing care. It will not be easy to retain currently-employed nurses, or to reduce the turnover rate, if the work environment of nurses in Korea does not change, regardless of whether the number of entrants to nursing science departments is increased. Miracle (2008) concluded that both nurse job satisfaction and excellent nursing care are the results of a healthy work environment.

Job satisfaction of nurses is an important concept. The literature reveals that the sources of job satisfaction are relatively similar, e.g., physical working conditions, relationships with fellow workers and managers, staffing and scheduling, pay promotion, job security, responsibility,

recognition from managers and hours of work (Lu, Barriball, Zhang, & While, 2012). In addition to the effects of the work environment such as organizational factors influencing job satisfaction, job satisfaction is also affected by conflict that work causes in family life, a personal factor. According to the theory of role stress, work-family conflict is defined as the inconsistency between the demands of work and the demands of the family (Greenhaus & Beutell, 1985). Traditionally, scholars have studied only one aspect of the conflict, that is, the interference of the work burden in the workplace with the role within the family (Greenhaus & Beutell, 1985). However, recently, the concept of work-family conflict has been more broadly investigated, so studies are now conducted in a two-dimensional manner (Yang, Chen, Choi, & Zou, 2000). In the present study work-family conflict as a potential influence on job satisfaction will be investigated, as it may be that nurses cannot fulfill their roles in the family because of their jobs, and therefore the inevitable consequence would be work-family conflict.

The conflict generated in the area of work and family not only causes severe physical and mental stress leading to deterioration in quality of life in general, but also leads to work stress, thereby specifically having a negative effect on life in the workplace (Green, Parasuraman, & Collins, 2001; Karatepe & Baddar, 2006). This conflict also leads to deterioration in work quality and output, lowers job satisfaction, and induces intention to change jobs (Boyar, Maertz, Pearson, & Keough, 2003; Netemeyer, Brashear-Alejandro, & Boles, 2004). In particular, nurses may experience numerous conflicts between their work and their families due to working three rotating shifts, losing weekends due to shifts, excessive workload, relatively low wages compared with the labor intensity of the work they do, and lack of autonomy. Notwithstanding the fact that nurses face conflict between work and family, the number of Korean studies that have examined the association between these types of conflict within the medical industry remains insufficient. In particular, most studies on the nursing practice environment have been performed outside of South Korea. Furthermore, Korean studies that have examined nurses' work-family conflict and job satisfaction together are unusual.

The present study was the first to investigate the effects of

work-family conflict and the work environment of nurses as influences on job satisfaction in nurses. Further, the aim of the study was to provide basic data to inform hospital management administrators, educators, and nurse managers of the importance of providing more comfortable and healthy work environments for hospital nurses.

The primary purpose of this study was to identify how work-family conflict and the nurse work environment of a medical institution affect the job satisfaction of nurses, and to provide basic data for improving nursing organizations. The specific purposes of this study are:

- To assess the nurse practice environment, work-family conflict, and job satisfaction of hospital nurses.
- To examine the correlation of nurse practice environment and work-family conflict with job satisfaction.
- To determine the effects of the nurse practice environment and the work-family conflict of hospital nurses on job satisfaction.

## METHODS

### 1. Design

This study was a cross-sectional, descriptive investigation conducted with hospital nurses, to assess the relationship of the nurse practice environment and work-family conflict to job satisfaction, as perceived by these nurses.

### 2. Participants and data collection procedures

The study population was comprised of nurses from the nursing organization units of general hospitals across Korea. Nurses in all of the Korean general hospitals were the population and eligible participants for this study. Data were collected via telephone conversations with, or direct visits to, general hospitals with more than 300 hospital beds whose nursing departments consented to participate in the study. These hospitals were initially identified using the telephone directory. Five general hospitals that agreed to participate were selected, and the study was conducted from July 9 to July 22, 2010.

Before the structured questionnaires were distributed to the

nurses, the purpose of the study was explained to the nursing departments of each hospital, either during a visit or via telephone, and co-operation of the chief nurses of each of the nursing units was obtained. The researchers explained that the responses to the statements within the questionnaires would remain confidential and that these responses would be autonomous. A cover page explaining the purpose and method of the study was also provided, along with a statement of informed consent. The study participants were nurses who both understood the purpose of the study and agreed to participate; these included staff nurses, charge nurses, and chief nurses. The nurses filled in the informed consent forms directly, and then entered their responses to the statements in the questionnaires. In this study, the areas for data collection were two metropolitan cities and two provinces.

The questionnaires were distributed to 300 nurses in 5 hospitals, and 289 questionnaires were returned. Thus, the response rate was 96.3%. All of the responses, except three with incomplete data, were included in the final data analysis, making the final number, 286 questionnaires (a final response rate of 98.9%).

### 3. Instruments

#### 1) Nurse practice environment

The nurse practice environment was assessed using the NWI-RVL (Revised Nursing Work Index) by Bogaert, Meulemans, Clarke, Vermeyen, & Van De Heyning (2009). This instrument was translated and then modified and adapted to ensure its suitability for the purposes of this study. Two nursing science department professors and two nurses with over 10 years' experience checked it for content validity. The final instrument consisted of an 11-item scale with three questions related to the nurse-doctor relationship, four questions concerning nurse management at the level of the nursing unit, and four questions regarding hospital management and organizational support. A 5-point scale is used to rate each question, ranging from 1 ("Not at all") to 5 ("very much so"). Higher scores indicate a better nurse practice environment, and the total possible points range from 11 to 55. In this study, the reliability of the nurse practice environment was

indicated by a Cronbach's  $\alpha = .88$ . The three dimensions, nurse-physician relationship, nurse management at the unit level and hospital management and organizational support, were sufficient and consistent and reliable according to Cronbach's alpha coefficients with values of 0.91, 0.74 and 0.76 respectively.

### 2) Work-family conflict

The work-family conflict scale of Netemeyer, Boles, and McMurrian (1996) was translated and used to assess work-family conflict. It contains five questions, on job demand, workload, work-related duty and strain with each question having a five-point scale. Higher scores indicate greater work-family conflict. The total possible points range from 5 to 25. In this study, the reliability of the work-family conflict had a Cronbach's  $\alpha = .79$ .

### 3) Job satisfaction

The job satisfaction scale by Kristensen, Hannerz, Hogh, and Borg (2005) was translated and used to evaluate job satisfaction. It is made up of four questions related to issues such as job prospects and physical working conditions. A four-point rating scales is used. Higher scores indicate greater job satisfaction, and the total possible points range from 4 to 16. In this study, the reliability for job satisfaction was Cronbach's  $\alpha = .85$ .

## 4. Data Analysis

Data were analyzed using the SPSS 17.0 program (SPSS Inc. 2009, Somers, NY, USA). Descriptive statistical methods, with means and standard deviations, were used to evaluate the general characteristics of the study participants. Cronbach's  $\alpha$  coefficients were calculated to verify the reliability of the study tools. Pearson correlation coefficients were used to calculate the correlations of nurse practice environment and work-family conflict with job satisfaction. Multiple regression analysis was used to identify factors associated with job satisfaction.

## 5. Ethical Considerations

This study was approved by the nursing research committee of each participating hospitals. Nursing research committees in Korea generally review the scientific aspects as well as the ethical aspects of nursing research that is submitted to their organization.

## RESULTS

The demographic characteristics of the 286 hospital nurses who participated in this study are presented in Table 1. The average age of the nurses was 30.7 years and 55.25% were 30 or less. A total of 86.4% of the nurses (n=247) were staff nurses, 9.1% (n=26) were charge nurses, and 4.5% (n=13) were chief nurses. A total of 47.9% of the participants (n=137) had graduated from 3-year junior colleges, while 41.3% (n=118) had graduated from 4-year baccalaureate nursing colleges. Of the participants, 44.1% (n=126) were Protestant Christian and 58.4% (n=167) were unmarried. The average length of work experience was 8.4 years, with 39.2% (n=112) having had over 10 years' experience and 33.6% (n=96) having between 5 and 10 years. Further, 89.6% worked in general nursing units, while the proportion of the nurses working in specialized nursing units was comparatively small. Job satisfaction differed significantly by age group. Job satisfaction for nurses over 40 was higher than for nurses under 30. Older nurses reported higher job satisfaction. Job satisfaction of charge nurses was higher than that of staff nurses (Table 1).

The scores for each question in the fields of nurse practice environment, work-family conflict, and job satisfaction are presented in Table 2. The average mean score for nurse practice environment was  $3.17 \pm 0.48$ , for work-family conflict,  $3.00 \pm 0.67$ , and for job satisfaction,  $2.43 \pm 0.52$ . For the nurse practice environment, the score for the subset of nurse-doctor relationships was lowest at  $3.05 \pm 0.72$ , for nurse management at the level of a nursing unit,  $3.41 \pm 0.52$ , and for hospital management and organizational support,  $3.02 \pm 0.60$ .

Analysis of the correlation for job satisfaction with nurse practice environment and work-family conflict showed that there was a significant positive correlation between nurse

**Table 1.** Differences in Job Satisfaction by Socio-demographic and General Characteristics (N=286\*)

Characteristics	Category	n	%	Mean (SD)	Job Satisfaction	t or F (p)	Sceffe (p)
Age (yr)	20~29 <sup>a</sup>	158	55.2	30.7 (6.9)	2.37 (0.51)	4.33 (.014)	a<c
	30~39 <sup>b</sup>	89	31.2		2.44 (0.55)		
	≥40 <sup>c</sup>	39	13.6		2.64 (0.40)		
Position	Staff nurse <sup>a</sup>	247	86.4		2.38 (0.52)	8.86 (<.001)	a<b
	Charge nurse <sup>b</sup>	26	9.1		2.81 (0.37)		
	Head nurse <sup>c</sup>	13	4.5		2.57 (0.40)		
Education	Diploma	137	47.9		2.48 (0.50)	1.91 (.149)	
	Bachelor	118	41.3		2.36 (0.54)		
	Master or PhD	31	10.8		2.50 (0.50)		
Religion	Protestant christian	126	44.1		2.34 (0.51)	1.88 (.114)	
	Catholic christian	21	7.3		2.46 (0.68)		
	Buddhist	27	9.4		2.53 (0.56)		
	None	109	38.2		2.50 (0.47)		
	Other	3	1.0		2.75 (0.25)		
Marital status	Single	167	58.4		2.36 (0.53)	-2.63 (.009)	
	Married	119	41.6		2.53 (0.49)		
Clinical experience (yr)	< 5	65	22.7	8.4 (6.7)	2.48 (0.48)	2.17 (.115)	
	5 ≤ <10	96	33.6		2.34 (0.51)		
	10 ≥	112	39.2		2.48 (0.54)		
Department	General unit	256	89.6		2.41 (0.52)	2.38 (.018)	
	Special unit	30	10.4		2.65 (0.49)		

\*Included missing data.

**Table 2.** Means and Standard Deviations of Measured Variables (N=286)

Variables	Item	Mean	SD	Mean±SD	Range
Nurse practice environment	Nurse-physician relationship	3.05	0.72	3.17±0.48	1~5
	1. Physicians and nurses have good working relationships	3.14	0.79		
	2. Much teamwork between nurses and doctors	3.02	0.77		
	3. Collaboration (joint practice between nurses and physicians)	3.01	0.78		
	Nurse management at the unit level	3.41	0.52		
	4. Nurse manager who is a good manager and leader	3.63	0.67		
	5. Working with nurses who are clinically competent	3.47	0.57		
	6. Written, up-to-date nursing care plans for all patients	3.23	0.78		
	7. Standardized policies, procedures, and ways of doing things	3.33	0.72		
	Hospital management and organizational support	3.02	0.60		
	8. Chief nursing officer is highly visible and accessible to staff	3.22	0.83		
9. Good relationships with other departments such as housekeeping and dietary	3.25	0.62			
10. Administration listens and responds to employee concerns	3.03	0.79			
11. Staff nurses are involved in the internal governance of the hospital	2.58	0.89			
Work-family conflict	1. The demands of work interfere with my home and family life	2.96	0.77	3.00±0.67	1~5
	2. The amount of time my job takes makes it difficult to fulfill family responsibilities	2.90	0.77		
	3. Things I want to do at home do not get done because of the demands of my job	2.81	0.81		
	4. My job produces strain that makes it difficult to fulfill family duties	2.93	0.79		
	5. Due to work-related duties, I have to make changes to my plans for family activities.	3.42	0.90		
Job satisfaction	1. How pleased are you with... Your work prospects?	2.59	0.64	2.43±0.52	1~4
	2. The physical work conditions?	2.06	0.69		
	3. The way your abilities are used?	2.61	0.63		
	4. Your job as a whole, everything taken into consideration?	2.48	0.66		

Table 3. Correlations of Study Variables

(N=286)

	Job satisfaction r ( $p$ )	Nurse practice environment r ( $p$ )	Work-family conflict r ( $p$ )
Job satisfaction	-		
Nurse practice environment	0.55 ( $<.001$ )	-	
Work-family conflict	-.44 ( $<.001$ )	-.39 ( $<.001$ )	-

Table 4. Factors Influencing Job Satisfaction

(N=286)

Variables	B	S.E	$\beta$	t	$p$	Adjusted R <sup>2</sup>	F	$p$
Constant	1.80	0.41		4.35	$<.001$	.39	28.14	$<.001$
Age	-.00	0.01	-0.03	-0.49	.625			
Staff nurse (Ref.: Head nurse)	0.03	0.14	0.02	0.22	.824			
Charge nurse (Ref.: Head nurse)	0.27	0.14	0.15	1.98	.049			
Marriage (Ref.: Single)	0.14	0.06	0.13	2.24	.026			
Department (Ref.: Special unit)	-0.14	0.08	-0.08	-1.74	.082			
Nurse practice environment	0.47	0.05	0.43	8.54	$<.001$			
Work-family conflict	-0.20	0.03	-0.26	-5.17	$<.001$			

Ref: reference variable.

practice environment and job satisfaction ( $r=.55$ ,  $p<.001$ ) (favorable nursing practice environment conditions correlated with job satisfaction) (Table 3). There was also a significant negative correlation between work-family conflict and job satisfaction ( $r=-.44$ ,  $p<.001$ ) (high work-family conflict correlated with low job satisfaction). Further, there was a significant correlation between nurse practice and work-family conflict ( $r=-.39$ ,  $p<.001$ ) (favorable nursing practice environment correlated with low work-family conflict).

Table 4 presents the factors that were found to affect job satisfaction, according to demographic characteristics of the nurses (Table 4). Of age, position, academic background, religion, marital status, clinical experience, and work unit with respect to job satisfaction, univariate analysis showed that age, position, marital status, and work unit were statistically significant. Nurse practice environment and work-family conflict were input as main variables and the statistically significant variables were input as independent variables. Position, marital status, and work unit were converted into dummy variables, and the VIF (Variance inflation factor) value was checked in order to ascertain

which variables interfered with securing multi-collinearity. The results showed that the explanatory variables accounted for 39% ( $F=28.14$ ,  $p<.001$ ) of job satisfaction. Nurse practice environment ( $\beta=0.43$ ) had a positive influence on job satisfaction. The second most influential factor was work-family conflict ( $\beta=-0.26$ ), which exerted a negative influence on job satisfaction. The position of charge nurse had the most significant positive influence on job satisfaction ( $\beta=0.15$ ). The Durbin-Watson value was 1.8, tolerance value was 0.2-0.9, VIF value was 1.1-2.6, and no multi-collinearity was observed.

## DISCUSSION

Among the various factors that could affect job satisfaction, the relationship among work-family conflict, nursing practice environment, and job satisfaction were examined in this study. This combination has not been examined frequently in Korean nursing studies. The results of this study show that the nurse work environment at an organizational level and work-family conflict at a personal level affect job satisfaction

in nurses.

In the present study, the nurse practice environment score was 3.17, out of a possible 5. In the sub-sections, the hospital management and organizational support score was the lowest. The score relating to the statement, "staff nurses participate in the internal management of hospitals" was the lowest score at 2.58. Sovie (1984) states that decentralized decision making, effective nursing leadership, autonomy and responsibility of professional nurses, perception of responsibility for nursing patients, sufficient number of nurses, and flexible work schedules are features of the work environment that are common to successful hospitals. In Korea, staff nurses rarely have the opportunity to participate in the internal management of hospitals; in general, it is the top nursing managers or chief nurses of nursing units who participate in decision making. Therefore, in order to promote job satisfaction for nurses, staff nurses should be allowed and encouraged, to participate in primary decision making that is related to hospital policies and procedures.

The scores for each statement related to work-family conflict were all  $\geq 2.5$  points, indicating that there were cases in which nurses could not fulfill their roles within their families due to their hospital work load. The score for "I have to change my plans for family activities due to work related to my job" was particularly high, at 3.42. Greenhaus and Beutell (1985) present the following classifications of different types of conflict: time conflict, tension conflict, and act conflict. In the present study, act conflict was high, although these three types of conflict were not directly assessed in the items related of the work-family conflict. There was no item regarding time conflict. However, nurses who fail to fulfill the demands of their different roles because they are pressed for time due to their job or are under too much stress may perform inconsistently at work. Therefore, it can be assumed that act conflict can be caused by time conflict or tension conflict (Choi & Kim, 2009).

There was a positive correlation between the score for nurse practice environment and job satisfaction. The work conditions of hospitals not only affect the performance of nurses at work, but also greatly affect the capacity of a hospital to hire and retain nurses (Aiken, Clarke, Sloane, Lake, & Cheney, 2008). Nurses working in Magnet-certified

hospitals are able to become more reliably involved in the ir job of nursing patients without any conflict. General features of Magnet-certified hospitals include a high nurse-to-patient ratio, flexible working hours, decentralized administration, participative management, autonomous decision-making, and opportunities for promotion. Medical institutions could adopt the features of the Magnet program in order to improve the work conditions of nurses, thereby both retaining the services of existing nurses and attracting more nurses (Sullivan & Decker, 2009). This implies that when nurses are working in good work environments, such as those of Magnet hospitals, (i.e., when nurses perceive that a positive practice environment is well established in their workplace), they have greater job satisfaction. Nemcek and James (2007) reported that nurse work environment is positively related to quality of life, which is similar to the outcomes of the present study. Aiken and Havens (2000) also reported that in hospitals with a very high level of Magnet features, patient health was better, and mortality, rate of disease contraction, and exhaustion were lower; therefore providing a high level of job satisfaction for nurses working in these hospitals. The outcomes of this study are important in that they show that Magnet features have a positive influence on job satisfaction in nurses.

In order to decrease the likelihood of nurses deciding to change jobs, levels of satisfaction with their jobs must be increased. In order to achieve this, either the work environment must be changed or any tension conflict or act conflict with families due to their job must be reduced. The participants in this study were all women because it is women, rather than men, who work as nurses in Korea. Lim, Lee, and Park (2005) showed that women with rigid work schedules have more difficulties in child care and time spent with families, compared to nurses with flexible work hours. Three shift rotations make it difficult for nurses to cope with the demands of organizing child care and married family life. Furthermore, nurses are frontline employees who meet patients before other public health or medical staff. The frontline employees who come into direct contact with customers perform very important roles in providing hospital services and are also directly associated with the image of the hospitals they represent. Nurses may positively or

negatively affect patients, visitors who may become future clients, and patient caregivers. Thus, the role of nurses is crucial. Considering that most nurses are women, it would be prudent to introduce and implement either a flexible work system in which nurses can choose their work hours or a system of regular, and short, work hours, as well as to create environments that help women to meet all the combined demands of work and family, by establishing child care facilities associated with workplaces or local communities. However, initially, problems such as low wages, difficulties in the work environment, and work conditions that prevent nurses from balancing work with family in small and medium-sized hospitals in the provinces must be addressed.

If hospital administrators show greater consideration for women nurses, it will help them to fulfill all the demands associated with work and family and reduce the work-family conflict (Choi & Kim, 2009). The settlement of conflict between work and family will lead to an improvement in productivity and quality of the nursing service, in turn improving job satisfaction and quality of life. It will also decrease the number of nurses planning to leave their jobs and allow them to become more absorbed in the work of the hospital, which will ultimately improve the quality of medical care. According a study by Munir, Nielsen, Garde, Albertsen, and Carnerio (2011), transformational leadership had a direct relationship with job satisfaction and psychological well-being. In particular, it was reported that work-life conflict affected the relationship between transformational leadership and psychological well-being. Further studies are necessary to evaluate which leadership types could decrease work-family conflict and increase job satisfaction in each department.

## LIMITATIONS

The present study has several limitations. First, the participants were employed in only five institutions, with the sample of 286 nurses being drawn from two metropolitan cities and two provinces. However, when one considers the total number of general hospitals in all of Korea, the sample size used in this study was insufficient. There were 5 tertiary general hospitals and 27 general hospitals in these 4 areas in

2010. It is suggested that this study be replicated using a larger number of nurses working in a greater number of medical institutions. Secondly, Kramer and Hafner (1989) developed 65 questions to form a nursing work environment scale (Nursing Work Index, NWI), and Aiken and Patricia (2000) subsequently developed a revised nursing work environment scale (Revised Nursing Work Index, NWI-R) that comprised 57 questions. Since 57 questions were considered to be too many, Ko (2010) assessed nursing work environment by using 21 questions from the PES-NWI developed by Lake (2002) and analyzed its relationship with job satisfaction and the intention of nurses to leave their current job. In the present study, NWI-RVL, as used by Bogaert et al. (2009), was translated and employed. The Revised Nursing Work Index (NWI-RVL) used by Bogaert et al. (2009) consists of a four-point scale; however, it was modified to a five-point scale in this study because on a four-point scale, with an "average" option not included, respondents at an average level would have to select a different value than they intended. Another advantage with the five-point scale is that it increases the potential discrimination among respondents because of the broader range of distribution of responses. The data sampling was conducted in 2010 and thereafter, Cho, Choi, Kim, Yoo, and Lee (2011) suggested that using a foreign tool without making a systematical translation and back translation thereof could be problematic; therefore, they developed a tool comprising 29 questions and 5 divisions by adapting the PES-NWI, a tool to measure nursing practice environment, in order to ensure its suitability for use in Korea. It is suggested that future research expand the participant medical institutions by using this instrument. Finally, in the present study, self-report through questionnaires was used for data collection and there are limitations related to the self-report method. In order to improve the validity of future research, it is suggested that rather than self-report data only, outcome variables should be obtained using negative events such as medication error rate, fall incidence rate, rate of infection, and mortality. These events can be objective indicators of nurse problems in the workplace environment that are detrimental to patient safety. However, in Korea, such sensitive outcome indicators are available only inside hospitals



or are very difficult to obtain. Therefore, it will be necessary in the future to manage and publicize such data at the national level.

## CONCLUSION

This study was done to identify the correlation of nursing practice environment and work-family conflict with job satisfaction, as perceived by nurses, as well as to identify effects on job satisfaction of work-family conflict, related to nursing practice environment, thereby providing basic data useful for establishing effective nursing personnel control policies. In order to improve the outcomes of nursing units, the work environments of hospitals and each nursing unit must be improved. Once a healthy work environment has been established, conflict due to work can be reduced and family conflict can be overcome, thereby leading to an improvement in job satisfaction. The results of this study indicate that a better nursing work environment results in higher job satisfaction. Lower levels of work-family conflict are also related to higher job satisfaction. The results also indicate that the nurse work environment is the main factor affecting job satisfaction. A healthy work environment means a work atmosphere in which staff nurses participate in decision making and support the leadership of nurse managers resulting in support for nurses, securing sufficient number of nurses, material support, and a co-operative relationship between nurses and doctors. In order to reduce family conflict due to work, it is also important that the environment outside of work enables nurses to balance work with family life. Work environments must be created in which nurses, as permanent employees, may select flexible working hours, not just the traditional work time of eight hours, and/or use child care centers within medical institutions that are set up to cater to the needs of nurses working three shifts. Finally, the particular environmental features of Magnet hospitals should be studied further in order to develop standards suitable for Korean work conditions. Future research should build on these findings to determine what further elements of the nurse practice environment and job satisfaction influence which aspects of nurses' work-family conflict.

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