



# สิ่งแวดล้อมการปฏิบัติการพยาบาลและความเหนื่อยหน่ายของพยาบาลใน โรงพยาบาลศูนย์ทั่วไป ประเทศสาธารณรัฐสังคมนิยมเวียดนาม

## Nursing Practice Environment and Burnout among Vietnamese Staff Nurses in Central General Hospitals

ดิน ทอง กวาง M.S.N.\* Dinh Trong Quang M.S.N.\*  
อรอนงค์ วิชัยคำ Ph.D.\*\* Orn-Anong Wichaikhum Ph.D.\*\*  
เรมวอล นันทศุภวัฒน์ Ph.D.\*\*\* Raymoul Nantsupawat Ph.D.\*\*\*

### บทคัดย่อ

สิ่งแวดล้อมการปฏิบัติการพยาบาลและความเหนื่อยหน่ายในรูปแบบต่างๆส่งผลต่อผลลัพธ์ที่พึงพอใจและไม่พึงพอใจของพยาบาล ผู้ป่วย และองค์กร วัตถุประสงค์ของการศึกษาแบบพรรณนาเชิงสหสัมพันธ์นี้เพื่อศึกษาสิ่งแวดล้อมการปฏิบัติการพยาบาล ความเหนื่อยหน่าย และความสัมพันธ์ระหว่างสิ่งแวดล้อมการปฏิบัติการพยาบาลและความเหนื่อยหน่ายตามการรับรู้ของพยาบาล ในโรงพยาบาลศูนย์กลางทั่วไป ประเทศสาธารณรัฐสังคมนิยมเวียดนาม กลุ่มตัวอย่างคือพยาบาลจำนวน 351 คน ซึ่งได้จากการสุ่มแบบแบ่งชั้นภูมิ เครื่องมือวิจัยประกอบด้วยแบบวัดสิ่งแวดล้อมการปฏิบัติของดัชนีงานพยาบาลและแบบวัดความเหนื่อยหน่ายของแมชแลช ค่าสัมประสิทธิ์ความเชื่อมั่นของแบบวัดสิ่งแวดล้อมการปฏิบัติของดัชนีงานพยาบาลเท่ากับ 0.75 และของแบบวัดความเหนื่อยหน่ายด้านความอ่อนล้าทางอารมณ์ ความรู้สึกความเป็นบุคคลลดลง และความสำเร็จส่วนบุคคลเท่ากับ 0.86, 0.78 และ 0.65 ตามลำดับ วิเคราะห์ข้อมูลด้วยสถิติเชิงพรรณนา และสถิติสัมพันธ์สหสัมพันธ์แบบอันดับที่ของสเปียร์แมน

### ผลการวิจัย พบว่า

การรับรู้สิ่งแวดล้อมการปฏิบัติการพยาบาลของกลุ่มตัวอย่างโดยภาพรวมอยู่ในหมวดหมู่ที่พึงพอใจ โดยมีการรับรู้สิ่งแวดล้อมการปฏิบัติการพยาบาลในระดับดี 4 ด้านจากทั้งหมด 5 ด้าน ได้แก่ ด้านการร่วมมือของพยาบาลในโรงพยาบาล ( $\bar{X}=2.53$ , S.D.=0.50) ด้านพื้นฐานการพยาบาลเพื่อคุณภาพการดูแล ( $\bar{X}=2.61$ , S.D.=0.46) ด้านความสามารถ ภาวะผู้นำ และการสนับสนุนของผู้บริหารการพยาบาล ( $\bar{X}=2.56$ , S.D.=0.49) และด้านความสัมพันธ์ของพยาบาลและแพทย์ ( $\bar{X}=2.60$ , S.D.=0.55) ยกเว้นด้านความเพียงพอของอัตรากำลังและทรัพยากรที่อยู่ในระดับไม่ดี ( $\bar{X}=2.28$ , S.D.=0.55) การรับรู้ความเหนื่อยหน่ายทั้ง 3 ด้านคือ ความอ่อนล้าทางอารมณ์ ความรู้สึกความเป็นบุคคลลดลง และความสำเร็จส่วนบุคคลอยู่ในระดับปานกลาง ( $\bar{X}=23.26$ , S.D.=9.55;  $\bar{X}=7.94$ ,

\* พยาบาลวิชาชีพ, Ninh Binh General Hospital, Ninh Binh, Vietnam

\* Profession Nurse, Ninh Binh General Hospital, Ninh Binh, Vietnam

\*\* อาจารย์, คณะพยาบาลศาสตร์ มหาวิทยาลัยเชียงใหม่

\*\* Lecturer, Faculty of Nursing, Chiang Mai University, Chiang Mai, Thailand

\*\*\* ศาสตราจารย์, คณะพยาบาลศาสตร์ มหาวิทยาลัยเชียงใหม่,

\*\*\* Associate Professor, Faculty of Nursing, Chiang Mai University



S.D.=4.75; และ  $\bar{X}$  =32.20, S.D.=7.78 ตามลำดับ) สิ่งแวดล้อมการปฏิบัติการพยาบาลมีความสัมพันธ์ในทางลบกับความอ่อนล้าทางอารมณ์ ( $r = -0.37, p < 0.01$ ) และความรู้สึกความเป็นบุคคลลดลงอย่างมีนัยสำคัญทางสถิติ ( $r = -0.41, p < 0.01$ ) ส่วนสิ่งแวดล้อมการปฏิบัติการพยาบาลมีความสัมพันธ์ในทางบวกกับความสำเร็จส่วนบุคคลอย่างมีนัยสำคัญทางสถิติ ( $r = 0.43, p < 0.01$ )

ผลการศึกษาแสดงให้เห็นถึงประเด็นสำคัญของสิ่งแวดล้อมการปฏิบัติการพยาบาลและความเหนื่อยหน่ายของพยาบาลที่จำเป็นต้องได้รับการพัฒนาในการสร้างสรรค์ผลลัพธ์ที่ดีของพยาบาลและผู้ป่วย

### **Abstract**

The nursing practice environment (NPE) and burnout can result in favorable and unfavorable consequences among nurses, patients, and the organization. This descriptive correlational study aimed to examine NPE, burnout, and relationships between the nursing practice environment and burnout as perceived by staff nurses in central general hospitals in the Socialist Republic of Vietnam. Stratified random sampling was used to identify a sample of 351 nurses. Research instruments consisted of the Practice Environment Scale of the Nursing Work Index and the Maslach Burnout Inventory. The reliability coefficients of the research instruments were 0.75 for the Practice Environment Scale of the Nursing Work Index and 0.86, 0.78, and 0.65 for emotional exhaustion, personal accomplishment, and depersonalization subscales, respectively. Data were analyzed using descriptive statistics and Spearman's rank-order correlation.

### **The results of study**

The indicated that the subjects perceived their entire practice environment as favorable. Four of five dimensions including nurse participation in hospital affairs ( $\bar{X}$ =2.53, S.D.=0.50); nursing foundations for quality of care ( $\bar{X}$ =2.61, S.D.=0.46); nurse manager ability, leadership and support of nurses ( $\bar{X}$ =2.56, S.D.=0.49); and nurse-physician relations ( $\bar{X}$ =2.60, S.D.=0.55) were perceived as good. Staffing and resources adequacy was perceived at a poor level ( $\bar{X}$ =2.28, S.D.=0.55). All three subscales of burnout (emotional exhaustion, depersonalization, and personal accomplishment) were perceived as moderate ( $\bar{X}$ =23.26, S.D.=9.55;  $\bar{X}$ =7.94, S.D.=4.75; and  $\bar{X}$ =32.20, S.D.=7.78, respectively). The entire NPE had significantly negative correlation with emotional exhaustion ( $r = -0.37, p < 0.01$ ) and depersonalization ( $r = -0.41, p < 0.01$ ) while it had significantly positive correlation with personal accomplishment ( $r = 0.43, p < 0.01$ ).

The findings point out the significant issues of NPE and burnout among nurses that should be improved in order to create better outcomes for both nurses and patients.

**Key Words:** *Nursing Practice Environment; Burnout; Nurses; Central General Hospitals; Vietnam.*



## Introduction

In Vietnam, the nursing shortage has recently become a big issue for hospitals and the healthcare sector. As reported by Muc and Thanh (2003), Vietnam needs about 145,000 nurses to fulfill the needs of both public and private hospitals. Luu (2011, as cited in Dung, 2011) asserted that because of the severe nursing shortage, nurses could not provide enough care to patients. Unfortunately, paperwork and non-nursing tasks take more than 50% of their time (Thanh, Khymyu, & Baramée, 2010). Furthermore, nurses usually have to work about 45 to 50 hours per week (Thanh *et al.*, 2010). In Vietnam all nurses work as fulltime employees; there are no part-time or on-call nurses. Moreover, Vietnamese nurses have long been considered to be merely physicians' assistants; this stigma sometimes makes them feel passive in decision-making. Additionally, educational level of both staff nurses and managers is still low compared to ASIAN countries. Among staff nurses, 82% hold secondary degrees (a 2-year nursing program) (MOH, 2007), while among head nurses the number is 71.9% (Nursing Section of the Ministry of Health (NSMH), 2010). Fortunately, the ministry of health has paid much attention to developing and encouraging the profession, as shown in many recent government documents and laws (Vietnamese Nurses Association (VNA), 2010). Since then, many education facilities (both formal and informal) have opened to educate and train nurses to advance and update their knowledge.

In central hospitals, overload is repeatedly reported. Nurse-patient ratios are usually as high as 1:10 in dayshift, and 1:20-30 in nightshift

(Muc & Thanh, 2003). Furthermore, following the referral system, central hospitals are the places where the most severe patients are treated. As a result, the staff in those hospitals must work with the pressure of both high workload and high demands of care. Additionally, nursing jobs are not highly recognized when compared with other industries, and public opinion undervalues the nursing profession. Subsequently, nurses might have feelings of inferiority. That situation has brought concerns to managers and researchers in Vietnam how to create a better working place and make nursing an attractive profession.

In the early 1980s, the American Nurses Association (ANA) identified several characteristics in the practice environment of hospitals that could retain and attract nurses (McClure, Poulin, Sovia, & Wandelt, 1983). Those hospitals were called magnet hospitals. Since then, those characteristics have been widely learnt and conceptualized as good nursing practice environment

According to Lake (2002), nursing practice environment (NPE) is defined as the organizational characteristics of a work that facilitate or constrain professional nursing practice and consists of five dimensions. Firstly, nurse participation in hospital affairs refers to participatory roles and values status of nurses in a broad hospital context. Secondly, nursing foundation for quality of care refers to the ability of nurses to access continuing education and nursing standards that are based on a nursing model of care. The third dimension, nurse manager ability, leadership, and support refers to characteristics described as key qualities of a nurse manager for being a good manager and leader. It describes how well senior nurse



managers provide an environment that supports and recognizes achievements of nursing staff, and demonstrates quality leadership. Another dimension, staffing and resources adequacy refers to having adequate number of staff and support resources to provide quality patient care. Moreover, it reflects nurses' perceptions of nurse-patient ratio levels, and time allocation for patient care and peer communication. Finally, nurse-physician relationship refers to characteristics of positive working relationships between nurses and physicians.

From the literature, it is believed that nurses face high emotional conditions in their work that might lead them to a mental problem called burnout (Maslach & Jackson, 1981). That burnout can cause serious consequences for the staff, clients and organizations in which they interact was initially researched in the 1970s (Maslach & Jackson, 1981). As defined by Maslach (1982), burnout is a syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who do people work of some kind. According to Maslach & Jackson's model (1981), burnout is composed of three components. The first component, emotional exhaustion refers to a feeling of excessive emotional stress and being drained by contact with others. The second component, depersonalization is expressed as an insensitive and indifferent response to people who are usually the recipients of social services and care. The third component, personal accomplishment describes feelings of competence and successful achievement in one's work with people.

Literature has shown that prolonged

exposure to stressful working environment is associated with burnout (Jennings, 2008), through active interactions between an individual and their working environment. During such interaction, environmental demands exceeding individual resources may be perceived as stressful and lead to negative outcomes such as low job satisfaction and burnout (Coyle, Edwards, Hannigan, Fothergill and Burnard, 2005).

Recent studies show that NPE is associated with burnout among hospital nurses. Practice environments that are friendly and less stressful are likely to relate with positive outcomes for staff working in those environment (Hanrahan, Aiken, & McClaine, 2010; Laschinger, Finegan, & Wilk, 2009). However, there was only one study which fully investigated the relationship between the two variables by Hanrahan et al. (2010) in the US.

On contrary with the western world, in ASIAN countries, where the nursing profession and resources are undergoing rapid development, there were no reports of the relationships between NPE and burnout. Understanding about NPE and burnout can help nurse managers and administrators develop appropriate strategies to improve the NPE and reduce burnout among hospital nurses. Unfortunately, in Vietnam there has been only one study of burnout conducted in the south. No research has been conducted to examine the NPE and its relationships with burnout. Therefore, the researcher explored those questions by conducting a study to examine the categories of NPE, the levels of burnout, and the relationships between NPE and burnout among nurses in general hospitals, The Socialist Republic of Vietnam.



## Methods

A descriptive correlational research was designed to assess the category of NPE's dimensions and total NPE, level of burnout, and the relationship between NPE dimensions and the entire NPE with each burnout subscales.

## Sample and Procedure

The sample included 414 fulltime nurses selected from 2500 nurses in five central general hospitals in the north of Vietnam. First the author grouped units of each hospital into five main departments: surgical department, medical department, specialty department, and pediatrics, and obstetrics department. The stratified random sampling method was used to select nurses from the list of nurses who were willing to participate in this study from each department of hospitals. After getting permissions from directors and nursing managers of those hospitals, the researcher asked for one coordinator of the nursing departments in each hospital to explain the objectives and benefits of the study, and to distribute the questionnaires to the subjects. After two weeks, the researcher received 351 questionnaires which represented 85% of the whole sample.

The research proposal was submitted to the Research Ethics Review Committee, the Faculty of Nursing, Chiang Mai University, Thailand to obtain approval before data collection. Then, approvals to collect data were also taken from five hospital directors. Subjects were selected from the nurses in all five central general hospitals. A research consent form was given to the subjects. The subjects were free to refuse to participate or withdraw from the study at any

time prior to completion of this study without any punishment. Confidentiality and anonymity of individual responses were guaranteed by a statement included in the cover letter. The information gotten from the subjects would be used only for the purpose of the study and remain confidential.

## Research Instrument

An instrument including three parts was used to examine demographic information, NPE and burnout perceived by nurses.

The first part was developed by the researcher. It was comprised of eight questions addressing demographic information using multiple-choices and fill-in-the-blank items.

The Vietnamese questionnaire translated from the Practice Environment Scale of the Nursing Work Index (PES-NWI) developed by Lake (2002). It consisted of 31 questions with 4-Likert-scale focusing on five dimensions of NPE including: nurse participation in hospital affairs; nursing foundations for quality of care; nurse manager ability, leadership, and support of nurses; staffing and resources adequacy; and collegial nurse-physician relations. The result was calculated based on hospital mean levels of the PES-NWI dimensions. If mean scores of the dimensions were equal to or above 2.5, it indicated that the dimensions were good, and conversely, below 2.5 were considered poor. Furthermore, the NPE can be classified into three categories (favorable, mixed, or unfavorable) by how many dimensions are rated as good by the subjects. Zero or one dimension rated as good refers to an unfavorable NPE; two or three dimensions rated as good refer to a mixed NPE;



and four or five dimensions rated as good refer to a favorable NPE. The Cronbach's alpha of the Vietnamese version of the PES-NWI ranged from .79 - .91 for the five dimensions, and was .75 for the whole questionnaire.

The burnout questionnaire was translated into Vietnamese from the Maslach Burnout Inventory (Maslach & Jackson, 1981). It contained 22 questions with 7-likert scale measuring three subscales: emotional exhaustion; depersonalization; and personal accomplishment. Following the original authors, when the emotional subscale was classified as low, moderate and high when range of scores was less or equal 16, from 16 to 27 and equal or larger than 27 respectively; for depersonalization subscale the cutpoints was 6, 6 - 13 and 13; the personal accomplishment subscale was rated low, moderate and high if the scores were less or equal 31, from 31 to 39 and equal or larger than 39. Moreover, the overall burnout was judged as high when emotional exhaustion, depersonalization, and personal accomplishment were characterized as high, high, and low, respectively. The Cronbach's alpha of the Vietnamese version of the MBI ranged from .65 to .86 for the three subscales.

### **Data Analysis**

Data was analyzed in accordance with the purposes of the study. Descriptive statistics was used to analyze frequency, means and standard deviations of the demographics data, the PES-NWI dimensions, and MBI subscales. Moreover, to examine the relationship between NPE dimensions and the overall score of the PES-NWI with burnout subscales, the Spearman's Rank-Order Correlation was used because

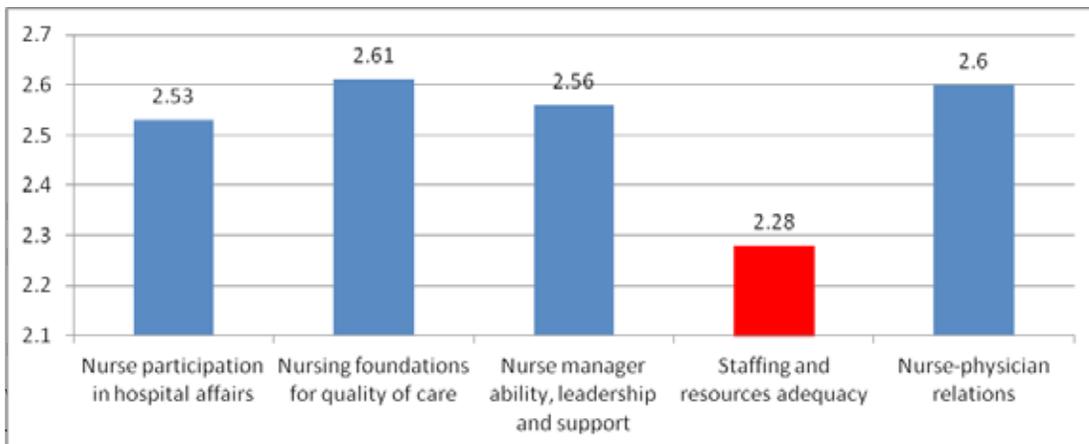
testing the variables' distribution was not normal form.

### **Results**

A majority of the subjects were female (84.33%), with an average age of 34.64 years. Nearly half (47.58%) were between 20 and 30 years old, and four fifths were married (79.77%). Significantly, an outstanding majority (71.79%) of the sample held only a secondary certificate (two-year training program), and just 16.81% held a bachelor degree. The average working hours of staff nurses in this sample was extremely high (53.10 hours per week) compared with the labor regulation for all workers across the country of 40 hours per week. Particularly, 20% of the subjects worked more than 60 hours, with several working more than 80 hours.

### **Nursing Practice Environment**

The results revealed that four out of five dimensions of the NPE, including nurse participation in hospital affairs ( $\bar{X}=2.53$ , S.D. = 0.50); nursing foundations for quality of care ( $\bar{X} = 2.61$ , S.D. = 0.46); nurse manager ability, leadership and support ( $\bar{X} = 2.56$ , S.D. = 0.49); and nurse-physician relations ( $\bar{X} = 2.60$ , SD = 0.55) were perceived as good. Only staffing and resources adequacy was stated as poor or not present at their work ( $\bar{X} = 2.28$ , S.D. = 0.55). As a result, the entire NPE was concluded as favorable for nurses (Figure 1).



Subjects (N=351)

Burnout's Subscale	$\bar{X}$	S.D.	Minimum	Maximum	Level
Emotional Exhaustion	23.26	9.55	5.00	52.00	Moderate
Depersonalization	7.94	4.75	0.00	25.00	Moderate
Personal Accomplishment	32.20	7.78	7.00	48.00	Moderate
Overall Burnout					Moderate

### Relationships Between Nursing Practice

#### Environment and Burnout

A noticeable point shown in Table 2 was that all tested pairs were statistically significant with  $p < 0.01$ . Specifically, the emotional exhaustion subscale had negative moderate correlations with nurse participation in hospital affairs; nurse manager ability, leadership and support; staffing and resources adequacy, nurse-physician relations and the entire NPE ( $r = -0.35, -0.31, -0.44, -0.31, -0.37$ , respectively) at  $p < 0.01$ , but weak correlation with nursing foundations for quality of care. Depersonalization negatively moderately related with nurse participation in hospital affairs; nursing foundations for quality of care; nurse manager

ability, leadership and support; staffing and resources adequacy, and the entire NPE ( $r = -0.41, -0.36, -0.33, -0.41, -0.41$ , respectively) at  $p < 0.01$ , whereas the nurse-physician relationship dimension showed weak correlation ( $r = -0.21$ ) at  $p < 0.01$ . There were positive moderate relationships in pairs between the personal accomplishment subscale and all five dimensions (nurse participation in hospital affairs; nursing foundations for quality of care; nurse manager ability, leadership and support; staffing and resources adequacy, and nurse-physician relations) of the NPE ( $r = 0.41, 0.39, 0.34, 0.39, 0.34$ , respectively) and the entire NPE ( $r = 0.43$ ) at  $p < 0.01$ .



**Table 2** Relationship Between the Nursing Practice Environment and Burnout Among the Subjects (N=351)

	Emotional exhaustion	Depersonalization	Personal accomplishment
Nurse participation in hospital affairs	-0.35*	-0.41*	0.41*
Nursing foundations for quality of care	-0.28*	-0.36*	0.39*
Nurse manager ability, leadership and support	-0.31*	-0.33**	0.34*
Staffing and resources adequacy	-0.44*	-0.41*	0.39*
Nurse-physician relations	-0.31*	-0.21*	0.34*
The entire nursing practice environment	-0.37*	-0.41*	0.43*

\*  $p < 0.01$ .

## Discussion

### Nursing Practice Environment

The results of this study showed that nurses in central general hospitals in the north of Vietnam perceived their practice environment as favorable. There are four out of five dimensions were good, except nurse staffing and resources dimension. This result was consistent with previous findings that showed good in four or all five dimensions of the NPE (Eaton-Spiva, et al., 2010; Gardner, Thomas-Hawkins, Fogg, & Latham, 2007; Middleton, Griffiths, Fernandez, & Smith, 2008).

The result specifically pointed out that only nurse staffing and resources was perceived

as poor ( $\bar{X}=2.28$ , S.D. = 0.55). This was further supported by the average working hours of 53.10 per week, 13.10 hours more than the 40-hour labor regulation. This finding might be related with the nursing shortage nationwide as reported by Muc (2009), in which Vietnam needs about 145,000 nurses to fulfill deficient positions in all hospitals. In addition, because of the high amount of paperwork and non-nursing tasks (Muc 2011, cited by Dung, 2011), nurses feel they have little time to spend for patient care and discussing patients' problems with other colleagues.



Fortunately, the nursing profession is getting more attention from health care leaders (VNA, 2010). As stated by the minister of health (Trieu, 2007), the MOH has been collaborating with other ministries to develop the nursing profession in such ways as improving promotion policies, work conditions, and nursing education systems for nurses so that they can bring their knowledge and education into practice. Therefore, the support of high-rank administrators, together with concerns of hospital administration boards might significantly facilitate a more favorable nursing practice environment. Moreover, hospitals already have some good policies to advance the nursing system. Trinh, Think, Huong, and Phuong (2010) asserted that hospitals do encourage nurses to continue or enhance their education, both formal and informal, by giving them flexible schedules, and rewarding excellent study results. Consequently, bachelor degree holders have increased from 4% in the report of the MOH (2007) to 16.81% in this survey. Additionally, a multidisciplinary care-team pattern is widely encouraged to provide holistic care to patients at all levels, which helps strengthen the relationship between different professionals, especially nurses and physicians.

### **Burnout**

The study revealed that overall burnout was rated as moderate. The moderate level of the emotional exhaustion subscale ( $\bar{X} = 23.26$ , S.D. = 9.55), indicated that the subjects were somewhat unable to offer themselves at a mental level and felt that they were not good in their actual abilities. Similarly, the second subscale, depersonalization, was perceived at

moderate ( $\bar{X} = 7.94$ , S.D. = 4.75), which implied that the subjects felt that they had not given patients adequate attitudes and services. The third subscale, personal accomplishment, was also found to be moderate in the subjects' perception ( $\bar{X} = 32.20$ , S.D. = 7.78).

Above results seem to be foreseen although the government is trying to facilitate and reduce the workload and patient overload conditions in central hospitals, there are still problems in emerging recent reports. According to Thanh (2003), the patient-nurse ratio in central hospitals (10:1 in dayshift and 20-30:1 in nightshift) is far higher than recommended ratio of the MOH. Moreover, the occupancy rates in those hospitals is usually higher than 100% (Quoc, 2011). In addition, there are ambiguities and a conflict of roles between different educational levels of nurses. For instance, bachelor degree nurses and secondary nurses almost do the same job and have the same responsibilities. Those stressful factors might cause emotional problems among the subjects. Furthermore, in central hospitals, where the most severe patients are referred, patients' pain or even death occurs more often than other hospitals. Therefore, the staff might have gotten used to that. Subsequently, they might have less emotion towards others' feelings or pain (Garrosa, Moreno-Jiménez, Liang, & González, 2008). Combined with the lack of resources and inadequate staffing among the hospitals, those would lead the subjects to feel somewhat unable to get their work well done. Fortunately, the reward system in hospitals that motivates all staff to accomplish their work well might be able to increase the accomplishment among the staffs.



### **Relationships Between Nursing Practice Environment and Burnout**

The results above illustrate that all dimensions of NPE and the entire NPE had negative associations with emotional exhaustion and depersonalization subscales (Table 2). This implies that when hospitals facilitate professional nursing practice their nursing staffs tend to feel less emotional exhausted and less depersonalization. These results are similar to previous studies (Hanrahan, et al., 2010; Van Bogaert, Clarke, Roelant, Meulemans, & Van de Heyning, 2010).

Moreover, all dimensions of NPE and the entire NPE were positively associated with personal accomplishment subscales (Table 2). This indicates that once the subjects are given better conditions in which to practice, they will be able to accomplish their work better. Conversely, if they are not facilitated, they seem to not accomplish their work well. This result was similar to the findings of Van Bogaert et al. (2010). Working environment is an important factor that contributes to burnout. When nurses work under poor nursing practice environment, it may lead to negative outcomes such as high stress, low job satisfaction, and burnout.

### **Conclusions and Implications**

The findings of this study have fully answered the research questions. Of which, the NPE was found to be favorable for nurses, four of the five dimensions were good, and only nurse staffing and resources dimension was poor as perceived by the subjects. Moreover, burnout level was discovered as moderate, with all of three subscales moderate. Finally, the findings also showed that the NPE was fully associated with burnout, an occupational stress.

The results could provide valuable information to nurses and nurse managers in general hospitals to move forward in promoting and developing a more favorable nursing practice environment to reduce nurse burnout. In this case, nurse staffing and resources should be the priority of any strategy. Moreover, the administrators should also have a deeper view on each component of the environment and give more intervention in order to lower the percentage of the staff who are not satisfied. The results might also help nurse managers to holistically understand the NPE relationship to nurse burnout. Hence, they could develop proper strategies to reduce burnout.



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