



บรรยากาศองค์การและสมรรถนะแห่งตนของพยาบาลโรงพยาบาล

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Organizational Climate and Self-efficacy

among Nurses in University Hospitals,

Yunnan Province, The People's Republic of China

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บทคัดย่อ

การศึกษาเชิงพรรณนาความสัมพันธ์นี้มีวัตถุประสงค์เพื่อศึกษาระดับบรรยากาศองค์การในภาพรวม และในแต่ละด้าน และสมรรถนะแห่งตน และเพื่อศึกษาความสัมพันธ์ระหว่างบรรยากาศองค์การในภาพรวม และในแต่ละด้านของพยาบาลโรงพยาบาลมหาวิทยาลัย มณฑลยูนนาน สาธารณรัฐประชาชนจีน เก็บรวบรวมข้อมูลจากพยาบาลจำนวน 426 คนที่ถูกสุ่มแบบหลายขั้นตอนจากประชากรพยาบาลทั้งหมด 6,359 คน จาก 2 โรงพยาบาลมหาวิทยาลัยที่ผ่านการสุ่มในเบื้องต้นมาก่อน เครื่องมือวิจัยประกอบด้วยแบบสอบถามส่วนบุคคล แบบสอบถามบรรยากาศองค์การ (OCQ) และแบบวัดสมรรถนะแห่งตนฉบับภาษาจีน (GSES) ค่าความเชื่อมั่นของแบบวัด OCQ และ GSES เท่ากับ 0.89 และ 0.93 ตามลำดับ วิเคราะห์ข้อมูลด้วยสถิติเชิงพรรณนาและค่าสัมประสิทธิ์สหสัมพันธ์แบบลำดับที่ของสเปียร์แมน ผลการศึกษาพบว่า: 1) บรรยากาศองค์การในภาพรวมซึ่งรับรู้โดยพยาบาลอยู่ในระดับดี และบรรยากาศองค์การด้านความยืดหยุ่น ด้านความรับผิดชอบในหน้าที่ ด้านมาตรฐานการปฏิบัติงาน ด้านความชัดเจน และด้านความยึดมั่นผูกพันในที่มอยู่ในระดับดี แต่ด้านการได้รับรางวัลอยู่ในระดับต่ำ 2) พยาบาลรับรู้สมรรถนะแห่งตนในระดับปานกลาง 3) มีความสัมพันธ์เชิงบวกอย่างมีนัยสำคัญระหว่างบรรยากาศองค์การในภาพรวมและแต่ละด้าน กับสมรรถนะแห่งตนของพยาบาล ($p < 0.01$) ผลการศึกษาเหล่านี้ให้ข้อมูลที่มีคุณค่ากับผู้อำนวยการโรงพยาบาลและผู้บริหารทางการพยาบาล เพื่อปรับปรุงบรรยากาศองค์การและเพื่อเพิ่มสมรรถนะแห่งตนของพยาบาล

คำสำคัญ : บรรยากาศองค์การ สมรรถนะแห่งตน พยาบาลในสาธารณรัฐประชาชนจีน

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Abstract

The objectives of this descriptive correlational research were to examine the level of overall and each dimension of organizational climate and self-efficacy, and to explore the relationship between overall and each dimension of organizational climate and self-efficacy among nurses in university hospitals in Yunnan Province, P. R. China. Data were collected from 426 nurses using multistage sampling from a total population of 6,359 nurses from two randomly-selected university hospitals. Research instruments included Demographic Data Form, Organizational Climate Questionnaire (OCQ), and Chinese version of General Self-efficacy Scale (GSES). Reliabilities of OCQ and GSES were 0.89 and 0.93, respectively. Descriptive statistics and Spearman's rank-order correlation were used to analyze data. The results found that: 1) nurses perceived the overall organizational climate at a good level, as well as flexibility, responsibility, standards, clarity, and team commitment; however, rewards were perceived at a poor level; 2) nurses had a moderate level of general self-efficacy; 3) there were statistically significant positive relationships between overall and each dimension of organizational climate and general self-efficacy of nurses ($p < 0.01$). These findings may provide valuable information to the directors of hospitals and nurse administrators to improve organizational climate and to enhance self-efficacy of nurses.

Key Words: *Organizational Climate, Self-efficacy, Nurses in P. R. China*

Background and Significance

The quality of care and patient-centered services are main requirements in modern health service systems. However, due to some factors such as nursing shortages, high turnover rate and job stress of health personnel (Colosi, 2011; Wang, 2011), the health system is facing many challenges to improve or even guarantee quality of care. Studies found that self-efficacy can influence productivity, performance, burnout and communication capability of nurses (Cui, Yang, Wang, Yang, Liao, Wang, & Li, 2009; Lee & Ko, 2009; Li, 2009; Vrugt & Koenis, 2002), and these outcomes would influence quality of nursing work. At present, self-efficacy has been an increasingly important construct in the organizational

sciences (Gist & Mitchell, 1992).

The concept of self-efficacy is a key construct of social cognitive theory (Bandura, 1986). Focusing on general self-efficacy (GSE), Schwarzer (1994) defined it as an overall confidence or belief of one-self's successful coping ability across a wide range of demanding or novel situations, it also can influence people's behavior. Study found that job stress and high workload could influence self-efficacy of nurses to be low (Wang, Liu, Hong & Zhou, 2009). In China, there are job stress and high workload among nurses (Wang, 2011). Bandura stated that the lower educational level of personnel may influence their self-efficacy (Bandura, 1997). At present, 46% of nurses do not even have an associate degree while most physicians



have at least a bachelor degree. Furthermore, relationships can influence general self-efficacy through improving positive psychological states (Schwarzer, 1994). The social status of nursing in China is lower than that of physicians as Tang and Zhu (2006) found that there were strained relationships between physicians and nurses. Even though, some nurses may have good working relationships with physicians because of a long history of working together.

Some studies demonstrated that organizational climate had a positive relationship with efficacy among teachers, staffs of security companies (Chiang, 2004; Huang, 2009). Organizational climate (OC) is the employee's perception of his/her work environment, and can influence their behaviors and feelings (Litwin & Stringer, 1968). Based on Litwin and Stringer (1968), Hay Group (1995, as cited in Snow, 2002) validated six key dimensions of organizational climate as flexibility, responsibility, standards, rewards, clarity and team commitment. These six dimensions are mainly responsible for the quality of an organizational climate.

In recent years, a human-based management focusing on relationship has been emphasized in China. However, in most Chinese public hospital structures, the leaders of clinical departments and hospitals are physicians, who pay less attention to nurses. The leadership influences the organizational climate (Sim, 2010). Moreover, the wage distribution inclines to the physicians in Chinese hospitals' payment system, and nurses feel their payment is unfair (Zhang, Zhang, Zhao & Chen, 2011). In addition, nursing professional development in China is lower than that of some developed countries,

and the roles and responsibilities of nurses have not been clarified. Moreover, although in emergency treatment, nurses make some necessary decisions about patient caring activities, due to obedience to physicians in during regular work, they feel less work autonomy (Peng & Li, 2007). These situations may influence organizational climate as perceived by nurses in China.

Although there were many studies related to self-efficacy and organizational climate among nurses in China and worldwide (Nielsen, Yarker, Randall, & Munir, 2009; Martens, 2007; Yin, 2008; Shan & Xu, 2010; Liu, Kunaviktikul & Tonmukayakul, 2007; Piyadeth, Chontawan & Akkadechanunt, 2010), no one study has been conducted in Yunnan Province, China. Further, the relationship between overall and each dimension of organizational climate and self-efficacy among nurses has been still unknown. Thus, considering the effect of self-efficacy and organizational climate for nursing, and this study may provide valuable information to the directors of hospitals and nurse administrators to improve organizational climate and to enhance self-efficacy of nurses, it is imperative to conduct this study.

Objectives

This study aimed to examine the level of overall and each dimension of organizational climate and self-efficacy, and to explore the relationship between overall and each dimension of organizational climate and self-efficacy among staff nurses in university hospitals in Yunnan Province, P. R. China.

Conceptual Framework

The conceptual framework of this study was based on the Hay group's model (1996) of organizational climate derived from Litwin and Stringer's framework (1968) and general self-efficacy concept of Schwarzer (1994) based on the Bandura's Social Cognitive Theory (1986). According to Social Cognitive Theory (Bandura, 1986), environmental factors and cognitive factors have interactions with each other. It implies that the perception of organizational climate may associate with the feelings and self-efficacy of employees.

Methodology

Population and sample

The sample size of this study is calculated by the formula of Yamane (1973). The descriptive correlational study was conducted in 453 nurses who had worked for more than one year. The subjects were selected using multistage sampling from a total population of 6,359 nurses from two randomly-selected university hospitals in Yunnan Province, P. R. China. During the data collection procedure, the packages were sent to the sample, it included a cover letter, a consent form, the questionnaires and an envelope with the researcher's name and address of mailbox. The 426 questionnaires were used for data analysis, it was 94.04% of questionnaire sent.

Instruments

Instruments used in this study consisted of : 1) Demographic Data Form which was developed by the researcher with open-ended and closed-ended questions including age, gender, marital status, educational level,

professional title, length of work as a nurse and working department. 2) Organizational Climate Questionnaire (OCQ) developed by Liu, Kunaviktikul and Tonmukayakul (2007) based on Hay group's (1995) model. The researcher translated it into a Chinese version using the back-translation method without any modification. It consisted of 25 items that measured six dimensions of organizational climate (flexibility, responsibility, standards, rewards, clarity, team commitment) with four-point Likert format: 1=strongly disagree, 2=somewhat disagree, 3=somewhat agree, 4=strongly agree. The mean scores of overall and each dimension of organizational climate were divided into very poor, poor, good and very good levels. The Content Validity Index (CVI) of OCQ was 0.90 (Liu, Kunaviktikul & Tonmukayakul, 2007) and the Cronbach's alpha coefficient of OCQ in this study was 0.89, while the subscales of flexibility, responsibility, standards, rewards, clarity, team commitment were 0.79, 0.81, 0.73, 0.84, 0.71, and 0.82, respectively. 3) Chinese Version of General Self-efficacy Scale (GSES) which was translated by Zhang and Schwarzer (1995) from the original English version (Schwarzer & Jerusalem, 1995) consisted of 10 items. It adopted four-point Likert format from 1 (not at all true) to 4 (exactly true). The mean score of general self-efficacy was divided into low, moderate, and high levels. GSES was validated through confirmatory factor analysis (Schwarzer & Jerusalem, 1995). The Cronbach's alpha coefficient of GSES in this study was 0.93.

Ethical considerations

The study was approved by the Research



Ethical Committee of the Faculty of Nursing, Chiang Mai University. Permission to collect data was obtained from the director of each hospital. Furthermore, all participants were required to sign research consent form before collecting data. Moreover, this study followed the principles of voluntariness, and strict confidentiality.

Data analysis

The Statistical Package for the Social Sciences (SPSS 16.0) was used to analyze data in this study. Frequency, percentage, mean, and standard deviation (S.D.) were used to analyze the descriptive data, and Spearman's Rank-order correlation was used to analyze the relationship of variables.

Results

1. Demographic data

Among 426 nurses, most of the subjects (97.89%) were female with the average age of 29.89 years (S.D.=6.98). The majority of the subjects (61.27%) were married. Nearly half of them had an associated degree (49.53%) and held the professional titles of junior nurse

(42.72%) and lecturer (45.54%). The average length of work as a nurse of the subjects was 9.27 years (S.D.=7.49). More subjects worked in medical department (37.09%) and surgical department (33.80%) than others.

2. Organizational climate

The results showed that the subjects perceived overall organizational climate at a good level (\bar{x} =2.74, S.D.=0.38). Among the six dimensions, the flexibility, responsibility, standards, clarity, and team commitment as perceived by subjects were at a good level. However, the rewards dimension as perceived by subjects was at a poor level. (Table 1)

3. Self-efficacy

As shown in Table 2, the subjects had a moderate level of general self-efficacy (\bar{x} =2.69, S.D.=0.55). (Table 2)

4. The relationship between organizational climate and self-efficacy

The results of this study showed that there was a significantly positive relationship between overall and each dimension of organizational climate and general self-efficacy among nurses (r =0.452, p <0.01). (Table 3)

Table 1 Mean, standard deviation and level of overall and each dimension of organizational climate as perceived by nurses (n=426)

Organizational Climate	\bar{x}	SD	Level
Overall	2.74	0.38	Good
Flexibility	2.56	0.43	Good
Responsibility	2.83	0.52	Good
Standards	2.88	0.51	Good
Rewards	2.38	0.63	Poor
Clarity	2.83	0.42	Good
Team commitment	2.96	0.46	Good



Table 2 Mean, standard deviation and level of general self-efficacy of nurses (n=426)

General Self-efficacy	\bar{x}	SD	Level
GSE	2.69	0.55	Moderate

Table 3 Relationships between overall and each dimension of Organizational Climate and General Self-efficacy of nurses (n=426)

Organizational Climate	General Self-efficacy
Overall	0.452*
Flexibility	0.216*
Responsibility	0.347*
Standards	0.319*
Rewards	0.390*
Clarity	0.424*
Team commitment	0.413*

* $p < 0.01$

Discussions

1. Organizational Climate

The results of this study showed that nurses working in university hospitals in Yunnan perceived overall organizational climate (OC) at a good level ($\bar{x}=2.74$, S.D.=0.38) (Table 1). This was similar with the results of previous studies which showed OC was at a good level (Liu, Kunaviktikul & Tonmukayakul, 2007). However, the result of this study was inconsistent with the study conducted by Piyadeth, Chontawan and Akkadechanunt (2010) in Lao and Mok and Au-yeung (2002) in Hong Kong which was at a low level.; in addition, it was different with the result of the study conducted by Liou and Cheng (2010) in Taiwan which was at a moderate level. These different results may because of these studies used different instruments and were conducted in different regions or countries with different development of the nursing profession in

different cultures. One possible explanation of the good level of OC in this study is that a human-based management which is relationship orientated has been emphasized in China in recent years. Further, a high level of transformational leadership which redesigns perceptions, values, expectations and aspirations of employees exists among head nurses in university hospitals in Yunnan (Li, Wichaikhum & Nantsupawat, 2012). Moreover, at present, there are policies encouraging staff to report or discuss any issues with leaders without any punishment while good communication channels exist in hospitals.

Among the six dimensions of OC, the results showed that flexibility responsibility, standards, clarity, and team commitment as perceived by nurses were at a good level. The results were consistent with the result of the study of Liu, Kunaviktikul and Tonmukayakul



(2007), but inconsistent with the results of the study of Piyadeth, Chontawan and Akkadechanunt (2010) which was at a low level. In the six dimensions, the team commitment dimension got the highest score ($\bar{x}=2.96$, S.D.=0.46) (Table 1). The reasonable explanation is that university hospitals represent an excellent medical and nursing service level in Yunnan, and most nurses feel proud to be a staff in such hospitals. Further, due to the increased unemployment rate in recent years, in order to keep a job, nurses show high level of team commitment.

However, the results showed that rewards dimension as perceived by nurses was at a poor level. It was different with the results of previous studies which showed that rewards was at a moderate to good level (Liu, Kunaviktikul & Tonmukayakul, 2007; Piyadeth, Chontawan & Akkadechanunt, 2010; Liou & Cheng, 2010). This result may be because according to the Chinese hospital payment system, the wage distribution inclines to the physician, nurses can get less money and fewer resources than physicians, and unfair payment in hospital was the most common complaint of nurses about hospital management (Sun, He, Wang & Li, 2009; Zhang, Zhang, Zhao & Chen, 2011). Moreover, although there was policy to award excellent staff, the number of recipients was limited, and nurses seldom got award. However, the condition of economy in Ha'er Bing is better than Kunming, thus, these above-mentioned conditions of hospital payment for nurses are better in Ha'er Bing. It can explain the result of rewards dimension of Liu's study was different from this study.

2. General self-efficacy

The results of this study showed that GSE of nurses was at a moderate level. It was similar with the results of previous studies (Shan & Xu, 2010; Yin, 2008). However, it was dissimilar with the results of other two studies conducted in Western countries which showed GES was at a good level (Munir & Nielsen, 2009; Nielsen, Yarker, Randall & Munir, 2009).

A reasonable explanation for this result of moderate level GSE is that most nurses feel lack of social supports and recognition from patients and society (Gu, 2004). Further, there is a strained relationship between physicians and nurses (Tang & Zhu, 2006) that decreases GSE through influencing their psychological states (Schwarzer, 1994). In addition, the demographic results may contribute to the moderate level of self-efficacy. Studies showed that the professional title had a negative influence on self-efficacy (Yin, 2008). In this study, most of nurses held lower level professional title as junior nurse (42.72%) and lecturer (45.54%). Furthermore, most of subjects were aged 26-35 years old (55.16%) and had worked for 1 to 10 years as a nurse (67.14%), Yin (2008) stated that young nurses had more enthusiasm in study and work, and had more confidence about their career. Moreover, according to Bandura (1997), educational level positively influences self-efficacy. In this study, most nurses had moderate educational levels as associated degree (49.53%) and bachelor degree (36.86%). Furthermore, only a few subjects worked in emergency room (5.87%) and ICU (5.87%) while most of them worked in medical general wards and surgical general wards. Studies found that nurses working in

emergency rooms and ICUs had a lower level of self-efficacy than other departments (Yin, 2008).

3. Relationship between overall and each dimension of organizational climate and self-efficacy of nurses

The results showed that there was a moderate positive relationship between overall OC and GSE of nurses. The findings indicated that the higher the level of OC as perceived by nurses, the higher the level of self-efficacy the nurses would have. This supported Litwin and Stringer's (1986) proposal that the perception of work environment/organizational climate would influence employee's behaviors and feelings/self-efficacy. It was similar with the results of the only two previous studies among other samples (Chiang, 2004; Huang, 2009). It may be explained that due to the mission of university hospitals including service, research and education, nurses here had similar characteristics as the study samples of Chiang (2004)-staff of security companies working in services, and Huang (2009)- school staff working as educators. In order to reach these missions of university hospitals, organizations would provide more supports for staff including nurses, the whole organizational climate would be better than other organizations. Further, in a good organizational climate, nurses would feel respected, motivated and have good relationships with colleagues and leaders, thus, as proposed by Bandura (1986), a good psychological and affective state would lead to good GSE .

The results of this study also showed that there was positive relationship between the flexibility dimension and GSE of nurses. It may be explained that when nurses felt encouraged

to put forward new or creative ideas for the organization, they would feel respected and attention from their leaders, thus leading to good psychological and affective states

There was a moderate positive relationship between responsibility dimension and GSE. Zhou (2010) found that work empowerment/ authority and autonomy to take action positively influenced GSE. Moreover, the relationship between standards and GSE was moderate and positive. People can have more accomplishment experiences through effort if the performance standards are appropriate and attainable, which contributes to self-efficacy (Bandura, 1986). There was a moderate positive relationship between rewards and GSE. According to Schwarzer (1994), verbal encouragement can affect judgments about one's efficacy beliefs. Moreover, the clarity dimension was moderately positively related to GSE. When nurses know the expectations of their organizations and understand how to reach the goals clearly, they will have enough confidence for coping with all affairs correctly to contribute to their achievement. Finally, there was a moderate positive relationship between team commitment and GSE. The possible explanation was that when nurses work in a hospital which everyone takes pride in, they would felt more capable than nurses who work in other hospitals.

Conclusions

The results of this study showed that overall organizational climate and flexibility, responsibility, standards, clarity, and team commitment dimensions as perceived by nurses were at a good level. However, the rewards



dimension as perceived by nurses was rated as poor, and the general self-efficacy of nurses was rated as moderate. In addition, there were statistically significant relationships between overall and each dimension of organizational climate and general self-efficacy of nurses in university hospitals.

Implications

The findings of this study provide valuable information to the directors of hospitals, nurse administrators and nurses to improve organizational climate and to enhance self-

efficacy of nurses. This study should be replicated in other types of hospitals or in other regions of China, and conduct comparative study in different departments, different age groups, or other subjects. Moreover, studies about other factors influencing organizational climate and general self-efficacy of nurses should be conducted.

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