Perceived Organizational Support and Proactive Work Behavior of Temporary Nurses in Tertiary Hospitals in Xishuangbanna City, the People's Republic of China*

การรับรู้การสนับสนุนจากองค์กรและพฤติกรรมการทำงานเชิงรุกของพยาบาลลูกจ้างชั่วคราว ในโรงพยาบาลระดับตติยภูมิของเมืองสิบสองปันนา สาธารณรัฐประชาชนจีน*

หง จาง** Hong Zhang**

ฐิติณัฏฐ์ อัคคะเดชอนันต์*** Thitinut Akkadechanunt***

กุลวดี อภิชาตบุตร**** Kulwadee Abhicharttibutra****

Abstract

Proactive work behavior is necessary for nurses as it contributes to organizational outcomes, and previous research has found that perceived organizational support is one of the factors that influences the proactive behavior of personnel. This descriptive correlational study aimed to explore perceived organizational support and proactive work behavior, and to examine the relationship between the two in nurses. The sample included 271 temporary nurses who work in 2 tertiary hospitals in Xishuangbanna city, Yunnan Province, China. Research instruments consisted of the Survey of Nurse Perceived Organizational Support (SNPOS) developed by Wang et al. (2014) and the Proactive Work Behavior Scale (PWBS) developed by Parker and Collins (2010) and translated into Chinese by Mu (2017). The Cronbach's alpha coefficient of SNPOS and PWBS were 0.96 and 0.88, respectively. Descriptive statistics and Spearman's rank-order correlation were used to analyze data.

Results revealed:

1. The level of overall perceived organizational support of temporary nurses was high ($\overline{X}$ = 3.89, SD = 0.72).

2. The level of overall proactive work behavior as perceived by temporary nurses was at a moderate level ($\overline{X}$ = 2.95, SD = 0.61). Sub-dimensions of proactive work behavior, which include problem prevention, individual innovation, voice, and taking charge as perceived by temporary nurses, were at moderate levels ($\overline{X}$ = 3.20, SD = 0.75; $\overline{X}$ = 2.74, SD = 0.80; $\overline{X}$ = 2.96, SD = 0.75; $\overline{X}$ = 2.91, SD = 0.79, respectively).

3. There was a significant positive correlation between perceived organizational support overall, as well as for each sub-dimension of proactive work behavior including problem prevention, individual innovation, voice, and taking charge (r = .25, p < .01; r = .19, p < .01; r = .23, p < .01; r = .25, p < .01; r = .17, p < .01, respectively).

Results could provide valuable information for hospitals and nurse administrators to be aware of the importance of offering organizational support for nurses in order to ameliorate proactive work behavior.

บทคัดย่อ

พฤติกรรมการทำงานเชิงรุกมีความจำเป็นสำหรับพยาบาลเนื่องจากก่อให้เกิดผลลัพธ์ที่ดีต่อองค์กร และงานวิจัยที่ผ่านมาพบว่าการรับรู้การสนับสนุนขององค์กรเป็นปัจจัยหนึ่งที่มีอิทธิพลต่อการพฤติกรรมการทำงานของบุคลากร การศึกษาวิจัยเชิงพรรณนาแบบหาความสัมพันธ์นี้มีวัตถุประสงค์เพื่อศึกษาความสัมพันธ์ระหว่างการรับรู้การสนับสนุนขององค์กรและพฤติกรรมการทำงานเชิงรุก และเพื่อทดสอบความสัมพันธ์ระหว่างการรับรู้การสนับสนุนขององค์กรและพฤติกรรมการทำงานเชิงรุกของพยาบาล กลุ่มตัวอย่าง คือ พยาบาลลูกจ้างชั่วคราวที่ทำงานอยู่ในโรงพยาบาลระดับตติยภูมิ 2 แห่งในเขตปกครองตนเองสิบสองปันนา มณฑลยูนนาน สาธารณรัฐประชาชนจีน จำนวนทั้งสิ้น 271 คน เครื่องมือวิจัยประกอบด้วย แบบสำรวจการสนับสนุนจากองค์กรตามการรับรู้ของพยาบาล (SNPOS) ที่พัฒนาขึ้นโดย หวัง และคณะ (Wang et al., 2014) และแบบประเมินพฤติกรรมการทำงานเชิงรุก (PWBS) ที่พัฒนาโดย ปาร์คเกอร์ และ คอลลินส์ (Parker & Collins, 2010) และถูกแปลเป็นภาษาจีน โดย มู่ (Mu, 2017) ค่าสัมประสิทธิ์สหสัมพันธ์อัลฟ่าของครอนบาคของ SNPOS และ PWBS เท่ากับ 0.96 และ 0.88 ตามลำดับ วิเคราะห์ข้อมูลโดยสถิติเชิงพรรณนา และสัมประสิทธิ์สหสัมพันธ์ของสเปียร์แมน

ผลการวิจัยพบว่า

1. ระดับของการสนับสนุนขององค์กรตามการรับรู้ของพยาบาลลูกจ้างชั่วคราวโดยรวมอยู่ในระดับสูง (X̄ = 3.89, SD = 0.72)

2. ระดับของพฤติกรรมการทำงานเชิงรุกโดยรวมตามการรับรู้โดยพยาบาลลูกจ้างชั่วคราวอยู่ในระดับปานกลาง (X̄ = 2.95, SD = 0.61) ระดับของพฤติกรรมการทำงานเชิงรุกรายด้านซึ่งประกอบด้วย การป้องกันการเกิดปัญหา การสร้างนวัตกรรมของบุคคล การแสดงความเห็น และการลงมือปฏิบัติ อยู่ในระดับปานกลาง (X̄ = 3.20, SD = 0.75; X̄ = 2.74, SD = 0.80; X̄ = 2.96, SD = 0.75; X̄ = 2.91, SD = 0.79, ตามลำดับ)

3. การรับรู้การสนับสนุนขององค์กรมีความสัมพันธ์ทางบวกกับพฤติกรรมการทำงานเชิงรุกอย่างมีนัยสำคัญทั้งโดยรวม และด้านการป้องกันการเกิดปัญหา การสร้างนวัตกรรมของบุคคล การแสดงความเห็น และการลงมือปฏิบัติ (r = .25, p<.01; r = .19, p<.01; r = .23, p<.01; r = .25, p<.01; r = .17, p<.01 ตามลำดับ)

ผลการศึกษาครั้งนี้แสดงให้เห็นถึงข้อมูลที่สำคัญสำหรับผู้บริหารโรงพยาบาล และผู้บริหารทางการพยาบาลที่ต้องตระหนักถึงความสำคัญของการให้การสนับสนุนขององค์กรสำหรับพยาบาล เพื่อที่จะพัฒนาพฤติกรรมการทำงานเชิงรุกของพยาบาลต่อไป

คำสำคัญ: การสนับสนุนขององค์กรตามการรับรู้ การทำงานเชิงรุก พยาบาลลูกจ้างชั่วคราว โรงพยาบาลระดับตติยภูมิ

Background and significance

The increasing demand for quality of health services (Porto & Dall'Agnol, 2016), as well as improving patient safety in a resource-insufficiency environment are tough tasks for healthcare organizations (Warshawsky, Havens, & Knafl, 2012). In Yunnan province, China, the continuing changing policies, such as "quality of care" and "hospital accreditation" (MOH of Yunnan 2012a, 2012b), challenge hospitals to become effective and highly productive. To handle the increasing complexity, discarding traditional work models, accepting continuous changes, respecting creativity, and acting flexibly to emerging work patterns and opportunities (Plsek & Greenhalgh, 2001) were required of nurses. Nurses who can be proactive at work, aware of new chances, and generate and speak up with new useful ideas in order to help prevent reoccurring problems and improve the effectiveness of work procedures are needed. This benefits hospitals to quickly adapt to changes and challenges, and to focus on improving and changing the internal organization. Proactive work behavior (PWB) is an active work behavior that starts with the individual focusing on bringing positive changes to themselves or to the environment and looking towards the future, seeking a positive change in the internal organization environment. It includes four sub-dimensions: problem prevention, individual innovation, voice, and taking charge (Parker & Collins, 2010). Healthcare organizations need employees to go beyond narrow task requirements and carry out active, self-starting, future-oriented proactive behaviors (Belschak, Den Hartog, & Fay, 2010). Proactive work behavior has confirmed its effect on quality of care (Farrell, 2012), patient outcomes (Wade, 2012) and nursing innovation (Baumann, 2011), and a supportive organizational culture positively in-fluences employees' proactivity at work (Bindl & Parker, 2010).

In nursing, Wang, Zhang and Qian, (2014) defined perceived organization support (POS) as nurses' perceptions of the extent to which their department or hospital gives them support, values their contribution and cares for their wellbeing in the nursing process. Nurses view POS as whether they receive favorable or unfavorable treatment from the hospital (Rhoades & Eisenberger, 2002). When they receive favorable treatment, they are likely to repay the hospital with positive attitudes and favorable work behaviors, and according to Eisenberger and his colleagues (1986), and Eisenberger, Stinglhamber, Vandenberghe, Sucharski, and Rhoades (2002), nurses who have high levels of POS are more conscientious about completing their work responsibilities than those with low levels, as well as perceiving higher job satisfaction (Aung, Akkadechanunt, & Chontawan, 2014). They are likely to behave proactively towards their organization, showing proactive work behavior during the nursing process.

In China, nurses perceive that they have less pay, promotions, and learning opportunities than doctors do (Zhang & Cao, 2008), as well as a high workload but unfair distribution of resources and low social recognition (Liu, Liu, Zhang, Guo, & Zhu, 2014). Heavy workload, shortage of nurses, needs for continuing education (Liu et al., 2011), and changes in policy and economy (Feng, 2012) could influence nurses' perception of hospital support. When comparing permanent and temporary nurses working in China, temporary nurses receive lower salaries (Sohu, 2016), as well as lower "professional development opportunities" and "welfare benefits" (Hou, 2014). There are no incentive mechanisms or opportunities to study abroad even though they are excellent at their work (Yi et al., 2014). Temporary nurses received less

recognition and praise for their working ability (Yi, Li, & Wei, 2014), felt lack a sense of belonging which triggers a decrease in their obligations towards the organization (Sun, Ma, & Zhu, 2013), and became less proactive at work. However, Yan (2012) reported that, in Yunnan, temporary nurses constituted 63-85% of hospital nurses. In Xishuangbanna tertiary hospitals, they con-stituted 63% of total nurses (calculated by the researcher from the data offered by the two hospitals). As the majority of nursing teams, if they perceive less than enough support from their organization, it might influence their performance and proactive work behavior.

Many scholars have explored the POS of nurses worldwide. The results showed that the POS of nurses was inconsistent, ranging from low to high levels in different countries. However, few scholars have explored PWB among nurses and showed a low to high level of PWB. While in China, only Mu (2017) explored PWB among head nurses, in Thailand, Sanghon, Thungjaroen-kul, and Nantsuupawat (2017) found a positive relationship between them in nursing. Little is known about the relationship between POS and PWB. Therefore, it is necessary to explore the relationship between POS and PWB among temporary nurses in tertiary hospitals in Xishuangbanna city.

Objectives

This study aimed to explore perceived organizational support and proactive work behavior, and to examine the relationship between perceived organizational support and proactive work behavior of temporary nurses in tertiary hospitals in Xishuangbanna city, China.

Conceptual Framework

The concept of perceived organizational support is based on the organizational support theory developed by Eisenberger et al. (1986).

Perceived organizational support of nurses was defined by Wang et al. (2014) as the nurses' perception of the extent to which their department or hospital gives them support, values their contribution and cares for their wellbeing in the nursing process. The concept of proactive work behavior was based on the proactive behavior model developed by Parker and Collins (2010). Proactive work behavior was defined as an active work behavior that starts with the individual, focusing on bringing positive changes to themselves or to the environment and looking towards the future, seeking a positive change in the internal organization environment. It includes four subdimensions: problem prevention, individual innovation, voice, and taking charge. Employees who per-ceived that their organization values their contribution at work and cares about their well-being are more likely to act proactively towards their organization's goals. The relationship between POS and PWB of temporary nurses was tested in this study.

Methodology

Population and Sample

This descriptive correlational study was conducted among 620 temporary nurses in two tertiary hospitals in Xishuangbanna city, China including the People's Hospital of Xishuang-banna Dai Nationality Autonomous Prefecture and the Xishuangbanna Agricultural Reclamation Hospital.

The inclusion criteria were temporary nurses who have at least one year of working experience and provided direct nursing care to patients. The exclusion criteria were temporary nurses who were nurse managers or nurses who were on maternity leave or sick leave, and those continuing their education. According to Yamane's formula (1973) and considering the 20% loss of subjects, the total sample was 292

temporary nurses. They were selected from each department of the two hospitals using a stratified proportional sampling method. A total of 292 questionnaires were distributed, and 271 questionnaires were completed for data analysis.

Research instruments

The research instruments used in this study consisted of three parts:

1. The demographic data form developed by the researcher.

2. The Survey of Nurse Perceived Organizational Support, developed by Wang et al. (2014), consisting of 15 items with a 5-point Likert scale (1 = strongly disagree; 5 = strongly agree), in which items were summed up and the mean score was reported and classified as high (mean score 3.67-5.00), moderate (mean score 2.34-3.66) or low (mean score 1.00-2.33).

3. The Proactive Work Behavior Scale developed by Parker and Collins (2010) and translated into Chinese by Mu (2017). This scale consisted of 13 items, including 4 subdimensions: problem prevention, individual innovation, voice, and taking charge, with a 5-point Likert scale (1 = very infrequently; 5 = very frequently). Items were summed up and the mean score was reported, and classified as high (mean score 3.68-5.00), moderate (mean score 2.34-3.67) or low (mean score 1.00-2.33).

The validity of the Survey of Nurse Perceived Organizational Support was a perceived support factor and accounted for 60.83% of the total variances and the Scale-level content validity index (S-CVI) was 0.94 (Wang et al., 2014). The confirmatory factor analysis (CFA) of the Proactive Work Behavior Scale indicated all factor loadings were statistically significant and greater than 0.4 (Parker &Collins, 2010). The Cronbach's alpha coefficients of the perceived organizational support and proactive work behavior scales were 0.96 and 0.88, respectively.

Ethical considerations

The study was approved by the Research Ethics Review Committee, Faculty of Nursing, Chiang Mai University. Permission to collect data was obtained from the directors of each tertiary hospital. All subjects were informed about the objectives and methods of this study and notified about the right to refuse or withdraw from this study at any time without being penalized or losing any benefits. The confidentiality and anonymity of each subject was guaranteed.

Data Collection

After getting permission from the directors of each tertiary hospital. The researcher met with the nursing directors to explain the objectives and the process of data collection. The package of questionnaires included an information sheet, a research consent form, and the questionnaires, and two envelopes were distributed to the subjects. The subjects were asked to keep the information letter and to return the questionnaires and consent form in separate sealed envelopes. A total of 292 questionnaires were distributed, and 271 questionnaires were completed for data analysis.

Data Analysis

Data were analyzed using a statistical software package. Frequency, percentage, mean and standard deviation were used to analyze POS and PWB. The results of Kolmogorov-Smirnov's (KS) test showed that the perceived organizational support of subjects was normally distributed (p = 0.23), while the proactive work behavior was not normally distributed (p = 0.05). Therefore, Spearman's rank-order correlation was used to analyze the relationship between POS and PWB.

Results

1. Among the subjects, 74.54% of subjects were aged between 21 to 30 years with an average age of 28.57 years (SD = 4.93), 96.31% of subjects were female and 57.20% of subjects were married. Most subjects held an associates' degree (66.42%), while 54.98% of subjects were senior nurses. In this study, 79.34% of subjects had been working as nurses in the hospital for 1 to 10 years with an average number of 7.11 years (SD = 5.02). In addition, 82.66% worked in rotating shifts and 41.70% earned 4,000-5,000 RMB per month.

2. The subjects perceived organizational support at a high level ($\bar{X}$ = 3.89, SD = 0.72), and perceived overall proactive work behavior ($\bar{X}$ = 2.95, SD = 0.61) and each subdimension of proactive work behavior at a moderate level (Table 1).

Table 1 Mean, Standard Deviation, and Level of Perceived Organizational Support and Proactive Work Behavior as Perceived by Subjects (n = 271)

Variables	Mean	SD	Level
Perceived Organizational Support	3.89	0.72	High
Overall Proactive Work Behavior	2.95	0.61	Moderate
Problem Prevention	3.20	0.75	Moderate
Individual Innovation	2.74	0.80	Moderate
Voice	2.96	0.75	Moderate
Taking Charge	2.91	0.79	Moderate

3. There was a significant weak positive correlation between perceived organizational support and overall (r =.25, p < .01) and each sub-dimension of proactive work behavior, problem prevention, individual innovation, voice, and taking charge (Table 2).

Table 2 Spearman's Rank-Order Correlations between Perceived Organizational Support and Overall and Each Sub-dimension of Proactive Work Behavior as Perceived by Subjects (n = 271)

Proactive Work Behavior	Perceived Organizational Support
Overall	.25**
Sub-dimensions	
Problem Prevention	.19**
Individual Innovation	.23**
Voice	.25**
Taking Charge	.17**

**p<.01

Discussion

1. Perceived organizational support for temporary nurses in tertiary hospitals of Xishuangbanna city, China.

The results of this study found that subjects perceived organizational support at a high level which indicated that subjects have received high support from their hospital as they expected. The results were inconsistent with Zhao, Feng and Zhao (2015) and You (2018) who used similar instruments but found POS at moderate level. The reason might be that subjects in this study were working in smaller hospitals, and they felt more valued, as small organizations have less formalized policies and procedures (Dekker & Barling,1995) which can be flexible for meeting the needs of individuals.

The first possible explanation might be related with hospitals' "non-punishing nursing adverse events report system" (MOH of Yunnan, 2012b), which aims to build up a safer medical system rather than focus on nurse's personal medical errors, encouraging nurses to analyze the root of mistakes and find methods to prevent mistakes occurring. Nurses, therefore, felt that they received support from hospitals. The second reason might be because nurses perceived good relationships between head nurses and themselves (Yang, Kunaviltikul, & Supamanee, 2013). Additionally, head nurses supported them during trouble or difficulties (for examples, head nurses would adjust shift schedules and help nurses when they are pregnant). Subjects, therefore, regard head nurses' support as an indication of organizational support. The third reason might be related to hospitals' new performance appraisal system which rewarded their contribution. The fourth reason might be a "housing fund" added for temporary nurses by hospitals as well as salary increases, which reduced the benefits injustices between permanent and temporary nurses.

A fifth reason might be the safe work conditions such as 24-hour safety guards' patrol. All these policies and management approaches helped nurses to perceive fairness and hospital support.

Other possible explanations might be related with younger ages, less work experience, lower professional titles, and lower educational levels of subjects, as these factors negatively related to POS (Liu et al., 2011; Zheng et al., 2016). In this study, the majority of subjects were young nurses aged 21-30 years old with less than 10 years' work experience, and they were junior nurses or senior nurses who held an associates' degree. Being young, they are in good health and more enthusiastic, they can better take advantage of the working environment and learning opportunities to perform work roles. Also, as they have less work experience and lower professional titles, they can consult with nurses who are experienced, with higher professional titles and higher educational levels; therefore, when they received help during work, they perceived a high level of POS.

2. Proactive work behavior as perceived by temporary nurses in tertiary hospitals of Xishuangbanna city, China

The results of this study indicated that subjects perceived proactive work behavior at a moderate level. The results were consistent with studies by Reynolds (2014) in the USA, as well as Sanghon et al. (2017) in Thailand. Possible explanations that promote subjects' perceptions of moderate levels of PWB might be related, firstly, to the policies of "quality of care", "quality care circle", "non-punish nursing adverse events report system" hospital accreditation (MOH of Yunnan, 2012a, 2012b). These policies all encourage and push subjects to behave proactively at work, bringing positive change in nursing procedures, and improving patient satisfaction and outcomes, and seeking for a positive change in the internal hospital

environment. Another reason might be because 74. 54% of subjects are young, and age is negatively related with proactive work behavior (Lam, Spreitzer & Fritz, 2014). The subjects also belong to the post-90s generation which has special active personal traits that relate positively with PWB (Luo, Lu, Lu, Chen & Li, 2018). Combined with Health Reform, they become more proactive. The reasons that hinder subjects to perceive high PWB might be because of lower educational levels and less familiarity with the work of subjects, as educational level and familiarity with work are positively related with PWB (Ouyang et al., 2015; Lam et al., 2014). In this study, 66. 42% of subjects held an associates' degree meaning that they might have not enough knowledge to seek and bring out effective work methods to prevent problems reoccurring. With less work experience, they are likely to be less familiar with their work and have less context-specific knowledge which may influence their level of proactivity (Lam et al., 2014). Those policies and demographic characters made nurses perceive moderate levels of overall proactive work behavior.

Regarding sub-dimensions of PWB, the moderate level results were consistent with a study by Sanghon et al. (2017). Polices that influence proactive work behavior were particularly influenced in its subdimensions. Because these policies built up a safer medical system and a satisfaction outcome for patients through encouraging nurses to discover and speak up about the problems or hidden dangers of work, the root analysis of the mistakes found methods to prevent mistakes from reoccurring (MOH of Yunnan, 2012b), which created a harmonious voice platform, improved nurse's problem prevention ability and taking charge consciousness. That all contributed to the subjects perception of a moderate level of problem prevention, voice, and taking charge. Aside from

these policies, there are other reasons that might also promote the subjects' perception of some subdimensions of PWB. For Individual innovation, as the majority of subjects are post-90s who are active and creative thinkers and like challenging work in practice (Yang, 2016), they have more distinct characteristics (Luo et al., 2018), and are more likely to help improving nursing procedure through individual innovation during the nursing process. For voice, as a majority of the subjects are young and outgoing, regarding the development of the organization as the goal of their work, they are willing to put forward suggestions to promote the development of their organization (Yi et al., 2016). For taking charge, other than the policies mentioned above, primary nursing, and hospital performance appraisal systems encouraged nurses to improve the work that was conducted. In addition, as age was negatively related with taking charge (Sonnentag & Spychala, 2012), that might promote their perception of taking charge.

There are some reasons that might hinder subjects to perceive a high level for each sub-dimension of PWB. For problem prevention, as 66. 42% of subjects in this study held an associate's degree, they are less competitive in terms of cognitive ability, learning ability, knowledge level and structure compared with bachelor's degree nurses (Hua Tu education, 2018). That may decrease their ability to figure out new and fresh approaches which prevent reoccurring problems. For Individual innovation, as there is a lack of training of innovation and available databases in hospitals, it might hinder nurses to think up useful ideas or search for new information. For voice, as educational level was positively related to voice (Ouyang et al. 2015), and the majority subjects are associate's degree nurses, they might have less ability to think of constructive suggestions to work. As Li, Fang and Li (2018) put forward, developing training pro-

jects can promote nurses' voice behavior, but there is a lack of voice behavior training in hospitals. For taking charge, as most of the subjects have less than 10 years' work experience, they are less familiar with some nursing procedures, and they lack skills and experiences and are non-administrators. Therefore, they have less chance of being involved in improving procedures. That might hinder their perception of taking charge.

3. The relationship between perceived organizational support and proactive work behavior of temporary nurses in tertiary hospitals in Xishuangbanna city, China.

The results of this study showed that there was a significant positive correlation between POS and PWB which indicates that nurses who perceived organizational support will behave proactively at work. This was consistent with a study by Sanghon et al. (2017) among 384 nurses working in regional hospitals in the north of Thailand. A possible explanation in this research might be because hospitals decreased salary inequity through "equal pay and equal work", offered "housing funds" benefits to increase subjects' wellbeing, ensured a safe work environment, and rewarded subjects through performance appraisal systems, as well as rewarded them after receiving higher educational levels or professional titles. They also received support from head nurses when they had special difficulties, such as pregnancy or sick leave. All this support helped the subjects perceive that their organization highly valued their contribution at work and cared about their wellbeing, which then increased the subject's obligation to repay the hospital and behave proactively at work.

It should be noted that the results still showed a weak correlation between POS and PWB. Nurses' PWB could be affected by other factors, such as job autonomy (Parker et al.,

2006); job autonomy has a positive relationship with proactive work behavior, but young nurses have less autonomy in their jobs. Therefore, even though the subjects perceived hospital support, with less autonomy, this may lead to some weak correlation between POS and PWB.

The results of this study showed that there was a significant positive correlation between POS and each sub-dimension of PWB: problem prevention, individual innovation, voice, and taking charge. This indicated that subjects who perceive high organizational support will be more likely to prevent reoccurring problems, speak up with their suggestions, new ideas, root analyses the causes of problems, and taking charge to improve procedures or effective the work methods. The result was consistent with the previous study by Sanghon et al. (2017).

Under the policy "non-punish nursing adverse events report system" (MOH of Yunnan, 2012b), subjects were supported instead of punished when they had problems at work and were helped by head nurses to find both the root causes of problems, and solutions to prevent those problems reoccurring. This support directly improved nurses' ability in problem prevention, and that might explain the positive relationship between POS and problem prevention. Nurses also perceived support from training and learning opportunities, and felt that they were cared for in their career development and were offered necessary resources for their work. Young nurses working in a supportive environment are likely to generate new ideas and try to apply these ideas to work when they become aware of new and emerging opportunities which may explain why POS has a positive relationship with individual innovation. The hospital created a harmonious voice platform after hospital accreditation, as well as a safe working environment to encourage subjects to express their constructive suggestions and

challenges to improve the standard procedures of their work environment. This may explain why POS has a positive relationship with voice. Except The nurse's job responsibilities require them to take charge of work that has been conducted. If a hospital supports them with the necessary resources, values their employee's contributions, and cares about their welfare, the subjects might have a higher obligation to improve their work. That may explain, in this study, why POS has a positive relationship with taking charge.

However, it should be noted that the results still showed a weak correlation between POS and problem prevention, individual innovation, voice, and taking charge. These behaviors of nurses could be affected by other factors, such as available resources, that can be used to develop new ideas while working. In the subjects' work setting, there is a lack of resources, like databases as well as innovation training, voice behavior training or chances to participate in quality assurance, nursing standards or guidelines. Therefore, even though nurses have fulfilled their socioemotional needs, without enough resources that can benefit nurses in problem prevention development, individual innovation, voice, and taking charge, this may lead to a weak correlation between POS and these subdimensions of PWB.

Conclusion

The results of this study indicated that subjects perceived organizational support at a high level, and overall proactive work behavior, as well as each sub-dimension of proactive work behavior at a moderate level. There was a significant weak positive correlation between POS and overall PWB and each sub-dimension of PWB: problem prevention, individual innovation, voice, and taking charge.

Implications and Recommendations

The findings of this study provide information that nurse administrators and hospital administrators should maintain and continue offering support to nurses, focusing especially on improving welfare (increasing salaries) and career development (offering chances for further study), in order to make nurses feel that their hospital values their contribution and cares about their wellbeing, as well as improving nurses' proactivity at work and improving organization effectiveness through developing procedures and systems which are effective in the long term. These include initiating related training programs of innovation and voice behavior, building up available database to help nurses search out information, updating new knowledge, and learning necessary skills to develop the ability of problem prevention, individual innovation, voice and taking charge, as well as trying to find out other factors that might also influence nurses' proactive work behavior.

It is recommended to replicate this study in other types of hospitals (secondary and primary), as well as to conduct similar relationship studies on other various factors that are related to PWB. A qualitative study that explores the details and depth, along with unbiased and reliable information on nurses' perceptions of POS and PWB could also be conducted to confirm their relationships.

References

Aung, M. L., Akkadechanunt, T., & Chontawan, R. (2014). Factors related to job satisfaction among nurses in general hospitals, Yangon, The Republic of the Union of Myanmar. *Nursing Journal, 41*(4), 108-122.

Banna Talent Network. (2018). *Measures for the management of temporary employees of state-level institutions in Xishuangbanna (Trial Implementation).* (in Chinese) Retrieved from http://www.bnrcw.com/news/news-show-29.htm

Belschak, F. D., Den Hartog, D. N., & Fay, D. (2010). Exploring positive, negative and context dependent aspects of proactive behaviors at work. *Journal of Occupational and Organizational Psychology*, *83*(2), 267-273.

Bindl, U. K., & Parker, S. K. (2010). Proactive work behavior: Forward-thinking and change-oriented action in organizations. *APA Handbook of Industrial and Organizational Psychology*, *2*, 567-598.

Dekker, I., & Barling, J. (1995). Workforce size and work-related role stress. *Work & Stress*, *9*(1), 45-54.

Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology*, *71*(3), 500-507.

Eisenberger, R., Stinglhamber, F., Vandenberghe, C., Sucharski, I. L., & Rhoades, L. (2002). Perceived supervisor support: Contributions to perceived organizational support and employee retention. *Journal of Applied Psychology*, *87*(3), 565-573.

Farrell, J. B. (2012). *The impact of high quality relationships on proactive behaviour at work: Evidence from independently owned hospitals in Ireland* (Unpublished doctoral dissertation). Dublin City University, Ireland, UK.

Feng, L. P. (2012). *Perceived organizational support and work engagement among nurses in university hospitals of Kunming Medical University, the People's Republic of China* (Unpublished master's thesis). Chiang Mai University, Thailand.

Hou, S. Q. (2014). Survey of job satisfaction of temporary nurses and analysis of related factors. *Modern Distance Education of Chinese Medicine*, *12*(19), 151-153. (in Chinese)

Hua Tu Education. (2018). *What's the difference between undergraduate and professional nurses?* (in Chinese) Retrieved from http://he.huatu.com/2018/0911/844730.html

Lam, C. F., Spreitzer, G., & Fritz, C. (2014). Too much of a good thing: Curvilinear effect of positive affect on proactive behaviors. *Journal of Organizational Behavior*, *35*(4), 530-546.

Li, C. Y., Fang, Q. W., & Li, N. (2018). Research progress on influencing factors of nurses' voice behavior. *Chinese Journal of Nursing*, *53*(8), 1014-1017. (in Chinese)

Liu, C. C., Liu, J., Zhang, Y. M., Guo, B. M., & Zhu, Y. (2014). The relationship between organizational justice and turnover intention among nurse in tertiary hospital. *Chinese Journal of Practical Nursing*, *30*(36), 29-32. (in Chinese)

Liu, K., You, L. M., Chen, S. X., Liu, H. P., Li, X. M., Li, X. H., & Jiang, X. L. (2011). Survey of the status quo and related factors of nurses' organizational support in Chinese hospitals. *Chinese Journal of Nursing*, *46*(10), 1009-1011. (in Chinese)

Luo, Y., Lu, L., Lu, R.C., Chen, W. P., & Li, H. P. (2018). The influence of personality traits of post-90s nurses on professional identity. *Chinese School Doctors*, *32*(2), 87-92. (in Chinese)

Ministry of Health of Yunnan. (2012a). *Hospital accreditation standard in Yunnan Province (Trial).* (in Chinese) Retrieved from https://wenku.baidu.com/view/ e98ac762cc175527072208d9.html

Ministry of Health of Yunnan. (2012b). *Notice of Yunnan Provincial Department of Health on printing and issuing the acceptance standards for quality nursing wards (Wards) of Yunnan tertiary hospitals.* (in Chinese). Retrieved from https://wenku.baidu.com/view/478730f804a1b0717fd5dd77.html

Mu, Q. Q. (2017). *Work engagement and proactive work behavior of Head Nurses in University Affiliated Hospitals, the People's Republic of China* (Unpublished master's thesis). Chiang Mai University, Thailand.

Ouyang, K., Lam, W., & Wang, W. (2015). Roles of gender and identification on abusive supervision and proactive behavior. *Asia Pacific Journal of Management*, *32*(3), 671-691.

Parker, S. K., & Collins, C. G. (2010). Taking stock: Integrating and differentiating multiple proactive behaviors. *Journal of Management*, *36*(3), 633-662.

Plsek, P. E., & Greenhalgh, T. (2001). Complexity science: The challenge of complexity in health care. *BMJ: British Medical Journal*, *323*, 625-627.

Porto, A. R., & Dall'Agnol, C. M. (2016). Analysis of nursing proactivity in a public university hospital. *Acta Paulista de Enfermagem*, *29*(5), 603-609.

Reynolds, C. A. (2014). *When can proactive behavior be bad? The moderating effect of social skill on proactive behavior and stress, blame attributions, and perceptions of greed* (Unpublished doctoral dissertation). Saint Louis University, USA.

Rhoades, L., & Eisenberger, R. (2002). Perceived organizational support: A review of the literature. *Journal of Applied Psychology*, *87*(4), 698-714.

Sanghon, K., Thungjaroenkul, P., & Nantsuupawat, A. (2017). Perceived organizational support and proactive work behavior among registered nurses. *Nursing Journal*, *44*(4), 134-144.

Sohu. (2016). *The difference between permanent and temporary nurse.* (in Chinese). Retrieved from http://www.sohu.com/a/101704869_129883

Sonnentag, S., & Spychala, A. (2012). Job control and job stressors as predictors of proactive work behavior: Is role breadth self-efficacy the link? *Human Performance*, *25*(5), 412-431.

Sun, H. Y., Ma, A. X., & Zhu, J. P. (2013). Nurse burnout from the perspective of institutional ethics. *Medicine and Philosophy*, *34*(7), 56-58. (in Chinese)

Wade, C. H. (2012). *Relationships among voluntary specialty certification in nursing role breadth self-efficacy, and nurses' use of proactive work behaviors* (Unpublished doctoral dissertation). The University of North Carolina at Chapel Hill, USA.

Wang, H. Q., Zhang, Y. Q., & Qian, Y. (2014). Development and validation of the survey of nurse perceived organizational support. *Research Paper*, *14*(16), 580-583. (in Chinese)

Warshawsky, N. E., Havens, D. S., & Knafl, G. (2012). The influence of interpersonal relationships on nurse managers' work engagement and proactive work behavior. *The Journal of Nursing Administration*, *42*(9), 418-425.

Yamane, T. (1973). *Statistics: An introductory analysis*. New York: Harper & Row.

Yan, Y. (2012). *Work empowerment and career success among nurses in university hospital of Yunnan, China* (Unpublished master's thesis). Chiang Mai University, Thailand.

Yang, Q. Q., Kunaviltikul, W., & Supamanee, T. (2013). Leader-member exchange and organizational citizenship behaviors among nurses in tertiary hospitals, Yunnan Province, the People's Republic of China. *Nursing Journal*, *40*(3), 109-120.

Yang, W. N. (2016). A brief analysis of the relationship between occupational well-being and leaving behavior of post-90s employees. *Talent Resource Development*, *12*, 149-150. (in Chinese)

Yi, K. G., Ding, S. Q., Liu, Z. N., Xie, J. F., Qin, C. X., Zheng, F., & Duan, Y. L. (2016). Study on the correlation between nurses' voice behavior and initiative personality. *PLA Journal of Nursing*, *33*(13), 1-6.

Yi, Y. J., Li, M., & Wei, C. C. (2014). Investigation and analysis of clinical work enthusiasm of temporary nurses. *Rural Health in China*, *11*, 45-45. (in Chinese)

You, M. (2018). *Organizational support and thriving at work as perceived by nurses in the Affiliated Hospitals of Dali University, the People's Republic of China* (Unpublished master's thesis). Chiang Mai University, Thailand.

Zhang, J. H., & Cao, H. P. (2008). The study of the social status of physician and nurses. *Chinese Journal Modern Nursing*, *14*(22), 2345-2349. (in Chinese)

Zhao, W., Feng, C. Q., & Zhao, J. (2015). Analysis of the influence of nurses' organizational support and job satisfaction on turnover intention. *China Nursing Management*, *9*, 1091-1094. (in Chinese)

Zheng, A. M., Zhu, T. T., Wang, Z. L., He, Y., & Qian, D. F. (2016). A study on the relationship between perceived organizational support and organizational citizenship behavior among medical staff. *Chinese General Practice*, *19*(B12), 344-347. (in Chinese)