



การแลกเปลี่ยนระหว่างผู้นำกับสมาชิกและพฤติกรรมการเป็นสมาชิก องค์การของพยาบาลในโรงพยาบาลตติยภูมิ มณฑลยูนนาน ประเทศสาธารณรัฐประชาชนจีน Leader-member Exchange and Organizational Citizenship Behaviors among Nurses in Tertiary Hospitals, Yunnan Province, the People's Republic of China

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Abstract

The purposes of this descriptive correlational study were to examine overall and each dimension of leader-member exchange and organizational citizenship behaviors and to explore the relationship between overall and each dimension of leader-member exchange and organizational citizenship behaviors among nurses in tertiary hospitals in Yunnan Province. The sample consisted of 402 staff nurses from 2 tertiary hospitals. Research instrument consisted of: 1) Demographic Data Form; 2) Multidimensional Leader-member Exchange Scale (LMX-MDM) developed by Liden and Maslyn (1998) and translated into Chinese by researcher; 3) Taiwan Organizational Citizenship Behavior Scale (TOCB) developed by Farh, Earley, and Lin (1997). The Cronbach's alpha coefficient of LMX-MDM was 0.84 and of TOCB was 0.88. Data were analyzed by using descriptive statistics and Spearman's Rank-Order Correlation. The results of the study showed that the overall and each dimension of leader-member exchange were at a moderate level and the organizational citizenship behaviors were at a high level. There was a positive relationship between overall and each dimension of leader-member exchange and organizational citizenship behaviors. The findings of this study could be used to improve organizational citizenship behaviors through enhancing leader-member exchange so that nurses work more effectively.

Key words: *Leader-Member Exchange, Organizational Citizenship Behaviors, Nurses, Tertiary Hospitals In P. R. China*

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การศึกษาเชิงพรรณนาหาความสัมพันธ์นี้มีวัตถุประสงค์เพื่อศึกษาการแลกเปลี่ยนระหว่างผู้นำกับสมาชิกทั้งในภาพรวมและในแต่ละด้าน พฤติกรรมการเป็นสมาชิกองค์การ และความสัมพันธ์ระหว่างภาพรวมและแต่ละด้านของการแลกเปลี่ยนระหว่างผู้นำกับสมาชิกกับพฤติกรรมการเป็นสมาชิกองค์การของพยาบาลในโรงพยาบาลตติยภูมิ มณฑลยูนนาน กลุ่มตัวอย่างประกอบด้วยพยาบาล จำนวน 402 คนจากโรงพยาบาลตติยภูมิ 2 แห่ง เครื่องมือที่ใช้ในการวิจัยประกอบด้วย 1) แบบสอบถามข้อมูลส่วนบุคคล 2) แบบวัดการแลกเปลี่ยนระหว่างผู้นำกับสมาชิกแบบพหุมิติ ซึ่งพัฒนาโดย ไคเดนและมาซลิน (1998) และแปลเป็นภาษาจีนโดยผู้วิจัย และ 3) แบบวัดพฤติกรรมการเป็นสมาชิกองค์การฉบับไต้หวัน ซึ่งพัฒนาโดยฟาร์ท เอลลี และหลิน (1997) โดยมีค่าสัมประสิทธิ์อัลฟาของครอนบาค เท่ากับ 0.84 และ 0.88 ตามลำดับ วิเคราะห์ข้อมูลโดยใช้สถิติเชิงพรรณนา และสหสัมพันธ์แบบลำดับที่ของสเปียร์แมน ผลการศึกษาพบว่า การแลกเปลี่ยนระหว่างผู้นำกับสมาชิกอยู่ในระดับปานกลางทั้งโดยรวมและรายด้าน และพฤติกรรมการเป็นสมาชิกองค์การอยู่ในระดับสูง การแลกเปลี่ยนระหว่างผู้นำกับสมาชิกมีความสัมพันธ์ทางบวกกับพฤติกรรมการเป็นสมาชิกองค์การในระดับปานกลาง ผลการศึกษานี้สามารถนำไปใช้ปรับปรุงพฤติกรรมการเป็นสมาชิกองค์การโดยเพิ่มการแลกเปลี่ยนระหว่างผู้นำกับสมาชิก เพื่อให้พยาบาลทำงานได้อย่างมีประสิทธิภาพมากยิ่งขึ้น

คำสำคัญ: การแลกเปลี่ยนระหว่างผู้นำกับสมาชิก พฤติกรรมการเป็นสมาชิกองค์การ
พยาบาล โรงพยาบาลตติยภูมิ ประเทศสาธารณรัฐประชาชนจีน

Introduction

Dramatic changes in health care systems have emerged because governments, insurance companies, and target customers have influenced the way of hospital services (Chu, Lee, Hsu, & Chen, 2005) Hospital managers should focus on attracting and retaining nurses to maintain and improve the quality of care during the time of cost containment and staff shortage. Improving overall organizational effectiveness and quality of health care, requires nurses who have good organizational citizenship behaviors (OCB) (Chang & Chang, 2010) OCB are positively influenced employee performance, productivity, efficiency, and profitability and are negatively related to an employee's intention to leave, actual turnover, absenteeism, and burnout (Lambert, 2010) Organ (1988, as cited in Farh, Earely, & Lin, 1997) defined OCB as individual and voluntary devotement

in the workplace that goes beyond role requirements and is not a contractually rewarded job achievement, but can promote organizational effectiveness. Based on Organ's definition, Farh *et al.*, (1997) developed five dimensions of OCB under the Chinese context, including identification with a company, altruism toward colleagues, conscientiousness, interpersonal harmony, and protecting company resources. Regarding identification with an organization, nurses who are in low status might be unwilling to provide a constructive opinion for the organizational life and also do not actively take part in the hospital's meeting to voice their suggestions (Wang, Hinrichs, Prieto, & Howell, 2010) It was reported that job dissatisfaction and burnout may obstruct helping behavior (Emmerik, Jawahar, & Stone, 2005). Chinese nurses might demonstrate altruism less than a normal level because there were job dissatisfaction (Wang,



Tao, & Liu, 2011) and burnout (Wang *et al.*, 2011) among them. In addition, nurses may be less likely to participate in continuing education during their working time due to nursing shortages and heavy workload (Chinese Academy of Medical Science [CAMS], 2009). Above two reasons also might cause Chinese nursing working errors. Interpersonal harmony might be destroyed by work related conflict among Chinese nurses because they were not able to cope well with the interpersonal relationship between peers, leaders, and physicians (Wang *et al.*, 2011). Some nurses may access to the medical resource, such as seeing a doctor and searching sophisticated equipment, for them and their family member in a more convenient and less expensive way. Thus, it might decrease the behavior of protecting company resources.

Scholars have summarized that organizational citizenship behaviors was positively influenced by job satisfaction, job involvement, perceived supervisor support, perception of fairness, and organizational commitment (Organ & Ryan, 1995; Podsakoff *et al.*, 2000; Chu *et al.*, 2005). Leader behaviors play a crucial role in relating organizational citizenship behaviors (Podsakoff *et al.*, 2000) and the personal relationship with direct supervisors may play an more important role in organizational citizenship behaviors' motivation in China than they do in Western countries.

Moreover, Liden and Maslyn (1998) defined leader-member exchange (LMX) as the quality of the work and social relationships between an employee and his or her immediate supervisor. LMX was characterized by four dimensions: contribution, loyalty, affect, and professional respect. LMX of nurses was at the moderate level, using the unidimensional LMX model in central of China (Cheng *et al.*, 2010).

The contribution of Chinese staff nurses may not be at a high level in their perceptions, because nurses were exhausted (Yin, 2010) and perceived unfairness (Yu, 2006). Moreover, there has been negative affection between a head nurse and staff nurses since criticism is one of the most used manners in nursing management and some of head nurses tend to express negative emotions. Regarding the loyalty as perceived by staff nurses, dual commands diminish the power (Xie, 2005) of a head nurse who is unable to openly support and defend a staff nurse when a mistake is made. Furthermore, lower professional respect has also existed in nursing for a long time due to the educational level and social status. Head nurses tend to be younger nurses who hold a higher educational level (Yang, Jiang, & Guo, 2011) and may lack sufficient work experience as well as professional skills and managerial competence (Yang *et al.*, 2011).

There is little known about the relationship between LMX and OCB among nurses in mainland China. Moreover, there is no study of OCB or LMX in Yunnan. The LMX or OCB study results in other province may not be used in Yunnan's health care settings due to a different organizational climate. Although the economy and the nursing development lagged behind other province of China, providing quality of care still was necessary standard nationwide. It was imperative to explore and identify the way to increase nurses' OCB in tertiary hospitals in Yunnan Province. Moreover, the relationship between each dimension of LMX and OCB was still not clear. Thus, this study aimed to explore the relationship between overall and each dimension of LMX and OCB among nurses in the tertiary hospitals of Yunnan.



Objectives

This study aimed to examine the leader-member exchange and organizational citizenship behaviors, and to explore the relationship between leader-member exchange and organizational citizenship behaviors among nurses in tertiary hospitals in Yunnan Province, P. R. China.

Conceptual Framework

The conceptual framework (Figure 1.) of this study was based on Liden and Maslyn's Leader-member Exchange model (1998) and Farh, Earley and Lin's Organizational Citizenship Behavior model (1997). According to the social exchange theory (Graen & Uhl-Bien, 1995), in high-quality LMX relationship, more trust exists

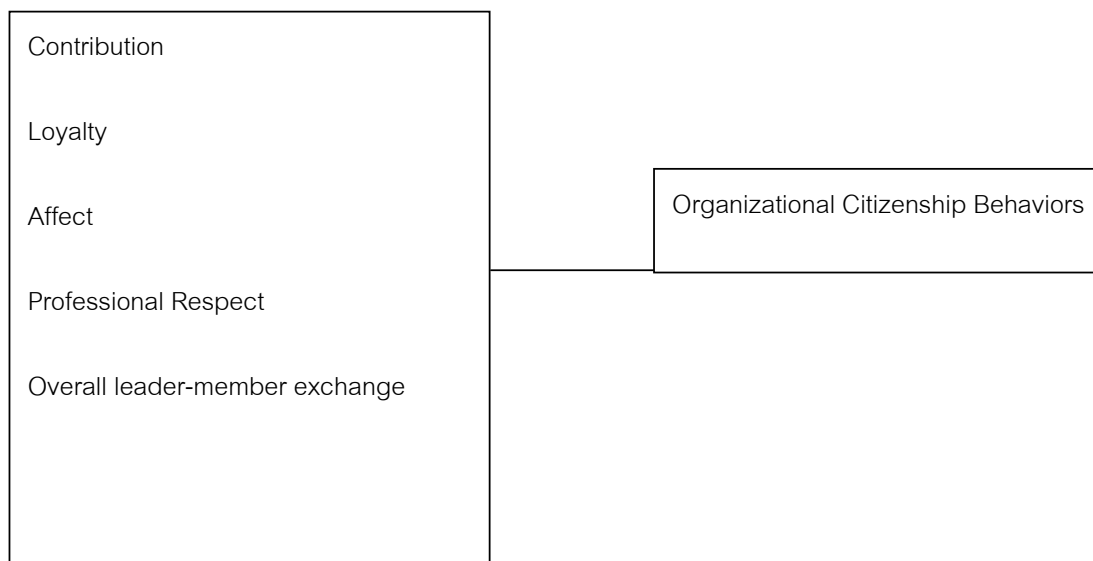
between leaders and followers, meanwhile, in order to respond to the trust and support from the leader, employees will make more effort beyond explicit role requirements to fulfill the reciprocity obligations and demonstrate more OCB.


Methodology

Population and sample

The population of this study was 5,739 nurses working at least one year in six tertiary hospitals, Yunnan Province, the People's Republic of China. Hospitals were divided into 2 groups including provincial and municipal level. There were 3,670 nurses in provincial level tertiary hospitals and

Figure 1. Conceptual Framework





2,069 nurses in municipal level tertiary hospitals. According to the formula of Yamane (1973) and considering the 20% of loss of subjects, total sample was 448 nurses. The proportion of nurse in provincial and municipal level were 64% and 36%, respectively. Finally, 287 and 161 nurses were sampled from the provincial level and the municipal level tertiary hospitals. Multistage randomly sampling method was employed to determine the subjects.

Instruments

The instruments used in this study was a questionnaire consisted of 3 parts as follows: 1) The Demographic Data Form which consisted of the working hospital, department, age, gender, marital status, education level, length of work, and shift work, was developed by the researcher; 2) The Multidimensional Leader-member Exchange Scales (LMX-MDM) developed by the Liden and Maslyn (1998), consisted of 12 items divided into four dimensions: affect, loyalty, contribution, and professional respect, with a 7-point scale from 1 (strongly disagree) to 7 (strongly agree). Items were summed and reported the mean score of each dimension separately ranging from 1 to 7. The mean scores of each dimension of leader-member exchange were divided into high (Mean score 5.01-7.00), moderate (Mean score 3.01-5.00) and low (Mean score 1.00-3.00) levels. 3) The Chinese version of Taiwan Organizational Citizenship Behavior Scale developed by Farh *et al.*, (1997) consisted of 20 items, including 5 dimensions: identification with the company, altruism toward colleagues, conscientiousness, interpersonal harmony, protecting company resources, with a 7-point scale from 1 (strongly disagree) to 7

(strongly agree). Items were summed and reported the mean score of overall and each dimension separately ranging from 1 to 7. The mean scores of overall and each dimension of organization citizenship behavior were divided into high (Mean score 5.01-7.00), moderate (Mean score 3.01-5.00) and low (Mean score 1.00-3.00) levels. The LMX-MDM scale was translated into the Chinese version by the researcher without any modification. In this study, the internal consistency reliabilities of LMX-MDM and TOCB were tested among 15 nurses with the same criteria as the subjects at the study setting. The Cronbach's alpha coefficient of LMX was 0.84, and those of each dimension of affect, loyalty, contribution, and professional respect were 0.78, 0.80, 0.74, and 0.86, respectively. The Cronbach's alpha coefficient of TOCB was 0.88 and those of each dimension of identification with the company, altruism toward colleagues, conscientiousness, interpersonal harmony, and protecting company resources were 0.88, 0.84, 0.84, 0.90, 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 director of each hospital. All subjects were informed about the objectives and methods of this study and notified about the right to refuse, or withdraw this study any time without being penalized or losing any benefit. A research consent form was handed to the subjects to assure the protection of human rights. Statements were included in a cover letter to guarantee confidentiality and anonymity of individual responses.

Data analysis



A Statistical Package program was used to analyze data in this study. Frequency, percentage, mean and standard deviation were used to analyze the descriptive data, and Spearman's Rank-order Correlation was used to analyze the relationship between LMX and OCB because these data were not normal distribution.

Results

Demographic data

All subjects were female with the average age of 31.66 years old (S.D. = 7.78). More than half of the subjects (50.75%) were in the age group of 26-35 years old. The majority of subjects were married (66.67%). Nearly half of the subjects held an associate diploma degree (47.76%), and 40.0% held a bachelor degree. Over one third

of the subjects had been working between 1-5 years (38.56%) while 29.85% of subjects have been working for 11-20 years, with the average of 10.74 years (S.D. = 8.56). Moreover, majority of them worked in medical (34.08%) and surgical (35.57%) departments. More than half of the subjects (59.20%) worked in rotating shifts.

Leader-member exchange

The mean score and standard deviations of total and each dimension of leader-member exchange are shown in Table 1. The subjects perceived overall leader-member exchange at a moderate level ($\bar{X} = 4.55$, SD = 1.10). Nurses reported the dimension of professional respect, affect, contribution as well as loyalty was at a moderate level.

Table 1 Mean, standard deviation and level of overall and each dimension of leader-member exchange (n=402)

Leader-member exchange	\bar{X}	SD	Level
Affect	4.64	1.30	Moderate
Loyalty	4.11	1.29	Moderate
Contribution	4.57	1.20	Moderate
Professional respect	4.89	1.26	Moderate
Overall	4.55	1.10	Moderate

Organizational citizenship behaviors

As shown in Table 2, the overall mean score of organizational citizenship behaviors as perceived by nurses was at a high level ($\bar{X} = 5.30$, S.D. = 0.72). The dimension of identification with company was at a moderate level whereas the other dimensions of altruism toward colleagues, conscientiousness, interpersonal harmony and protecting company resources were at a high level.

The relationship between leader-member exchange and organizational citizenship behaviorsIn Table 3, there was a moderate positive statistically significant relationship between organizational citizenship behaviors and leader-member exchange ($r = 0.41$, $p < 0.05$). Regarding each dimension of leader-member exchange, organizational citizenship behaviors were moderate positively related to affect ($r = 0.36$, $p < 0.05$), contribution

($r = 0.37, p < 0.05$) and professional respect ($r = 0.25, p < 0.05$).
0.42, $p < 0.05$) and weak positively related to loyalty

Table 2 Mean, standard deviation, and level of overall and each dimension of organizational citizenship behaviors (n=402)

Organizational citizenship behaviors	\bar{X}	SD	Level
Identification with company	4.93	0.96	Moderate
Altruism toward colleagues	5.33	0.88	High
Conscientiousness	5.07	0.94	High
Interpersonal harmony	5.62	1.04	High
Protecting company resources	5.71	1.02	High
Overall	5.30	0.72	High

Discussion

Leader-member exchange

The results of this study indicated that the overall leader-member exchange of subjects was at a moderate level ($\bar{X} = 4.55$, S.D. = 1.10) (Table 1). The finding was consistent to the result of Laschinger, Fine and Wilk (2009) in that LMX quality ($\bar{X} = 3.89$, S.D. = 0.66) was at a moderate level among nurses in Canada using the same instrument. This might be due to the same nursing working pattern regarding the quality of care across the world. Whereas, it was indicated that the high level of LMX on Han and Jekel's study (2011) among nurses in America ($\bar{X} = 5.15$, S.D. = 1.56).

One possible reason for a moderate level of LMX in nurses may be due to the managing style of head nurses in their daily work, insufficient communication between head nurses and nurses, and the age and educational difference under Chinese culture. Most head nurses often criticize their subordinates and punished nurses with fined instead of searching for the root cause of the problem.

Both parts of leader-members work overload (Yu, 2007), thus, it was difficult to communicate and interact adequately. In the culture context with high power distance in China (Wang *et al.*, 2010), relational norms should be very important. Head nurses in a position of high status expect to be respected from nurses who have lower status (Wang *et al.*, 2010). However, the actual situation may be more complicated by the social culture norms with particular attributes such as age and education level of nurses.

On the other hand, a moderate level of LMX is still implied that staff nurses perceived a somewhat high quality relationship between leader and member. The possible explanation might be because length of work of the subjects and collectivism culture. Nahrgang *et al.*, (2009) stated that the quality of leader member relationships would increase over time and then stabilize, following a positive development. Since 61.40% of nurses worked more than 5 years in this study, it is possible that they may have higher quality of relationships with their leaders. Collectivism culture

emphasizes maintaining relatedness and adjusting one's behavior to others Nurses, as collectivists, thought protecting harmonious relationships is important.

Regarding four dimensions of leader-member exchange, one possible explanation of moderate level of affect is that 61.40% of nurses working more than 5 years in this study would increase friendship over time. However, head nurses who expressed negative emotion might affect the friendship with their subordinates (Wang & Li, 2004). The reasonable explanation of moderate level of loyalty might be related to less autonomy of head nurse and moderate level of organizational support as perceived by nurses. The possible explanation of moderate level of contribution might be because nursing work was affected under limited resources and nursing shortage so that it is hard to do more with less resource. Moreover, some nurses perceived that they did not receive enough formal and informal reward from their leaders, such as continuing education, salary and welfare (Tao, Zhang, Zhong & Chen, 2005). The moderate level of professional respect may be because of the higher level of education and more experience of head nurses. About 80% of head nurses held an educational degree above bachelor degree and nearly half of head nurses worked more than 10 years as nurses in university hospital in Yunnan (Li, 2011). However, with the increasing of daily affair, some head nurses paid more attention to "management" rather than the progress of profession itself and research ability (Wang & Zhan, 2010).

Organizational citizenship behaviors

This study found that the organizational

citizenship behaviors which perceived by staff nurses in tertiary hospital of Yunnan was at a high level with a mean score of 5.30 and standard deviation of 0.72 (Table 2). The finding was similar to Chen, Wang, Chang and Hu's study (2008) which reported the OCB was at a high level (\bar{X} = 4.40, S.D. = 0.25) using 5-point TOCB scale in Taiwan, as well as Kandan and Ali's study (2010) which showed that the OCB was at a high level (\bar{X} = 5.51, SD = 0.65) using Organ's OCB scale. One explanation might be because of the subjects' demographic factors, such as age, marital status, educational level and length of work. Older or married employee demonstrates higher level of OCB (Po, 2010). Since 23.63% of nurses' age less than 26 years old and 66.7% of nurses being married and they may display more organizational citizenship behavior. Furthermore, 61.4% of nurses have been working more than 6 years. Therefore, they exhibit higher OCB because the length of work had positively influenced OCB (Chou & Pearson, 2011). Recently, demanding nursing service quality may also be one reason of a higher level of OCBs because a new policy of the MOHC (2010b) forced staff nurses working for tertiary hospitals to perform proactively in terms of basic nursing and do more work than formerly (Hou, Li, Huang, Zhao, Xiao, & Chen, 2011). Furthermore, the performance evaluation may account for a higher level of OCBs of staff nurses. Penner, Midili, and Kegelmeyer (1997) argued that OCB can be motivated by expectations of gain since such behaviors may indirectly increase the score of performance evaluation by influencing the whole impression perceived by head nurses.

The relationship between overall and each dimension of leader-member exchange and

organizational citizenship behaviors

This study found that there was a significantly moderate positive relationship between leader-member exchange and organizational citizenship behavior ($r = 0.41, p < 0.05$). This indicated that the higher leader-member exchange as perceived by nurses, the higher organizational citizenship behavior they exhibited. It was congruent with the result of Chen and his peers' nursing research (2008). The relationship between LMX and OCB could be explained in that a leader trusts a particular member and provides certain advantages to him or her in terms of more trust, support and so forth, so that the subordinate perceives themselves as in-group member and consequently may develop a feeling that the follower wishes to pay back to the leader. It can be done by performing behaviors that are beyond the formal employment contract, which is known as organizational citizenship behaviors. It also supports the social exchange theory, according to the Multidimensional Leader-member Exchange model and Organizational Citizenship Behavior model (Farh *et al.*, 1997).

This study showed that there was a moderately positive relationship between affect and organizational citizenship behaviors. It was consistent with Ilies, Scott, and Judge's (2006) study which stated that affective component of LMX is associated with interpersonal helping because the positive affect results in helping. Nurses directly interacted with head nurses while leaders observed and listened to their subordinates and then staff nurse increase their OCB (Wang, Zhao & Gao, 2007).

There was a weakly positive relationship between loyalty and organizational citizenship

behaviors. One possible explanation may be that if head nurses have higher quality relationships with their subordinates, leaders might defend nurses when their staff made an honest mistake. Employees may feel bound to help those who have helped them according to social exchange theory. In order to pay back their leader, nurses are more likely to perform organizational citizenship behaviors when their leader was in a burdensome situation, such as staff shortage and over workload (Wang, Zhao & Gao, 2007).

Moreover, there was a moderately positive relationship between contribution and organizational citizenship behaviors. That may be because the in-group nurses who have a higher quality of LMX may exhibit more work-related behaviors and they would receive more informal reward from head nurses, such as emotional support and verbal encouragement (Wang, Zhao & Gao, 2007). The informal rewards provided by the head nurses often create a feeling of obligation on the part of nurses (Wang, Zhao & Gao, 2007). Consequently, nurses would engage in behaviors beyond their formal roles by presenting organizational citizenship behaviors (Wang, Zhao & Gao, 2007).

Furthermore, there was a moderately positive relationship between professional respect and organizational citizenship behaviors. The possible explanation may be that if nurses admire head nurses' knowledge and professional skills, nurses may be willing to view their leader as role model and accommodate heavy workload without complaints, not misuse organization's resources, providing the head nurses with respects (Wang, Zhao & Gao, 2007). Then, the perception of respect would increase the possibility of organizational citizenship behaviors (Wang, Zhao & Gao, 2007).

Conclusion

The results of this study indicated that overall leader-member exchange and the affect, loyalty, contribution and professional respect dimensions as perceived by nurses were at a moderate level. Overall organizational citizenship behaviors and altruism toward colleagues, conscientiousness, interpersonal harmony and protecting company resources dimension as perceived by nurses was at a high level and identification with company dimension was at a moderate level. In addition, there were positive relationships between overall and each dimension of LMX and OCB.

Implications and recommendation

The findings of this study provide information

that administrators should maintain a high quality of exchange relationship with their nurses to enhance nurses' organizational citizenship behaviors. Head nurses interact with staff nurses by actively communicating with staff, listening staff nurses' needs, building trust and a supportive climate for nurses.

This study should be replicated in other types of hospitals of in other regions of China. A longitudinal study should be conducted to understand the ways to improve organizational citizenship behaviors since this is a cross-sectional study. Moreover, OCB and LMX could be investigated from different perspectives, such as peers and leaders' view.

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