

**Role Ambiguity and Turnover Intention of New Nurses in Affiliated Hospitals  
at Kunming Medical University, the People's Republic of China\***  
**ความคลุมเครือของบทบาทและการตั้งใจลาออกของพยาบาลใหม่ในโรงพยาบาล  
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## Abstract

Previous studies have found that there is a positive relationship between role ambiguity and turnover intention. However, this issue has never been studied in the three affiliated hospitals of Kunming Medical University, Republic of China. This descriptive correlational study aimed to examine role ambiguity and turnover intention and to explore the relationship between role ambiguity and turnover intention of new nurses. The participants were 358 nurses who worked for 3 years or less in the three affiliated hospitals of Kunming Medical University, and who were selected using the stratified random sampling method. The research instruments included a Demographic Data form, the Role Ambiguity Scale (RAS) developed by Beauchamp, Lee, Argall, & Martin (2004) and the Turnover Intention Questionnaire (TIQ) developed by Roodt (2004) and translated into Chinese by the researcher. The reliability coefficients of the RAS and TIQ were .74 and .83, respectively. Data were analyzed using descriptive statistics and Pearson's Rank-order Correlation.

The results of this study indicated that:

1. The mean score for the role ambiguity dimension of new nurses was at a moderate level.
2. The mean score for the turnover intention dimension of new nurses was at a moderate level.
3. There was a significant positive relationship ( $r = 0.54$ ) between overall role ambiguity and turnover intention.

The results of this study could be used as valuable information for hospitals and nursing administrators to develop strategies to reduce role ambiguity for new nurses in affiliated hospitals of Kunming Medical University, the People's Republic of China, in order to decrease their turnover intention.

**Keywords:** Role ambiguity, Turnover intention, New nurses

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## บทคัดย่อ

การศึกษาที่ผ่านมาพบว่าความคลุมเครือในบทบาทและความตั้งใจที่จะลาออกจากงานมีความสัมพันธ์กัน อย่างไรก็ตาม ยังไม่พบการศึกษาดังกล่าวในโรงพยาบาลเครือมหาวิทยาลัยการแพทย์คุณหมิง สาธารณรัฐประชาชนจีน วัตถุประสงค์ของการศึกษาเชิงพรรณนาคือความสัมพันธ์นี้ เพื่อตรวจสอบความคลุมเครือในบทบาทและความตั้งใจที่จะลาออกจากงาน และเพื่อสำรวจความสัมพันธ์ระหว่างความคลุมเครือในบทบาทและความตั้งใจที่จะลาออกของพยาบาลใหม่ กลุ่มตัวอย่างใช้วิธีการสุ่มกลุ่มตัวอย่างแบบชั้นภูมิเพื่อเลือกพยาบาล 358 คนที่ทำงานน้อยกว่าและเท่ากับ 3 ปีในโรงพยาบาลในเครือ 3 แห่งของมหาวิทยาลัยการแพทย์คุณหมิง สาธารณรัฐประชาชนจีน เครื่องมือที่ใช้ในการวิจัยประกอบด้วย แบบสอบถามข้อมูลส่วนบุคคล แบบสอบถามความคลุมเครือในบทบาท (RAS) โดย Beauchamp, Lee, Argall, & Martin (2004) และแบบสอบถามความตั้งใจลาออกจากงาน (TIQ) โดย Roodt (2004) แปลเป็นภาษาจีนโดยผู้วิจัย ค่าอัลฟาครอนบาคของ RAS และ TIQ เท่ากับ .74 และ .83 ตามลำดับ วิเคราะห์ข้อมูลโดยใช้วิธีสถิติเชิงพรรณนาและสหสัมพันธ์เชิงอันดับของ เพียร์สัน

ผลการศึกษาพบว่า

1. ระดับความคลุมเครือในบทบาทโดยรวมของพยาบาลใหม่อยู่ในระดับปานกลาง
2. ความตั้งใจที่จะลาออกของพยาบาลใหม่อยู่ในระดับปานกลาง
3. ความคลุมเครือบทบาทโดยรวมและความตั้งใจที่จะลาออกมีความสัมพันธ์ระดับสูง ( $r=0.544$ )

ผลการศึกษานี้เป็นข้อมูลสำหรับผู้บริหารโรงพยาบาลและผู้บริหารทางการพยาบาล เพื่อพัฒนากลยุทธ์เพื่อลดความคลุมเครือของบทบาทพยาบาลใหม่ เพื่อลดความตั้งใจที่จะลาออกของพยาบาลใหม่ในมหาวิทยาลัยการแพทย์คุณหมิงสาธารณรัฐประชาชนจีน

**คำสำคัญ:** ความคลุมเครือในบทบาท ความตั้งใจที่จะลาออก พยาบาลใหม่

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## Background and significance

According to World Health Organization statistics (WHO, 2019), there is a global shortage of health workers, particularly nurses, who account for more than 50% of the current shortage of health workers. The annual turnover rate of nurses has been reported throughout the world. The nurse turnover rate was 12.1% in Japan in 2004 (Takase, Oba, & Yamashita, 2009) and 27.7% in the USA in 2018. Turnover rates among nurses in Europe range from 12% to 21% across 10 European countries and were recently reported at about 20% in Canada. China is experiencing a similar situation. The turnover rate of nurses in Beijing was 3.1% in 2018 (Ministry of Health, 2019) and 4.7% in Hong Kong in 2010 (Chen & Gao, 2010). According to the Health Bureau of Yunnan province, the average turnover rate among the general university hospitals in Kunming was 7.1%, which is higher than in both Beijing and Hong Kong. Among turnover of nurses, it was noticed that the rate of turnover of new nurses also accounts for a large percentage. The youngest generation of nurses are the most willing to leave their job and the nursing profession (Heinen et al., 2013).

Turnover intention (TI) is defined as the voluntary intention of a registered nurse to leave his or her hospital and includes three elements: thinking of quitting, intention to search and intention to quit (Roodt, 2004). Turnover intention can be a predictor of actual turnover (Wen, Zhang, Wang, & Tang, 2018). High nurse turnover can have a negative impact on the stability of the organization, the financial stability of the organization, job dissatisfaction

and burnout, resulting in more people having the idea of leaving, as well as negatively impacting the quality and safety of health care (Hayes et al., 2012). Prior studies have been carried out to identify the level of turnover intention among new nurses (Yang & Huang, 2015; Chen, Wu, Hui, & Xian, 2016), but there is little research on the turnover intention of new nurses in the affiliated hospitals of Kunming Medical University.

Through reviewing relevant literature, it was found that there are several factors related to turnover intention among nurses. Among those, role ambiguity is one of the factors that is most significantly related to turnover intention (Liu, Yang, & Chen, 2013; Michael, Andrew, Tony, & Ronald, 2008; Gauri, 2013). Beauchamp et al. (2004) defined role ambiguity as the lack of clear identification of individuals' roles and determination of responsibilities in line with those roles. Beauchamp et al. (2004) proposed four dimensions of role ambiguity including the scope of responsibility, the actions necessary to perform the duties, performance appraisal and consequences of non-performance of duties. Studies have been carried out to identify the level of role ambiguity among nurses (Nikolaos, Tsigilis, & Bebetos, 2010; Bosselut, McLaren, Eys, & Heuzé, 2012; Liu et al., 2013). Results showed that the degree of role ambiguity for registered nurses is at a medium to high level. However, there is a limitation on the number of studies on role ambiguity among new nurses. Through the literature review, it was found that role ambiguity was associated with turnover intention among new nurses (Liu et al., 2013;

Gauri, 2013). Moreover, no study identified the relationship between these two variables among new nurses.

China has 28,341 hospitals, according to the National Health and Family Planning Commission. By the end of 2018, there were more than 4 million registered nurses in China, accounting for nearly 50 percent of health professionals and allowing for 3 nurses per 1,000 people (National Health Council of the Republic of China, 2019). The Affiliated Hospital of Kunming Medical University is a health service institution with a high level of teaching and good quality medical services in Yunnan Province. Every year, thousands of newly graduated nurses enter the three affiliated hospitals of Kunming Medical University (KMU) (Kunming Health Bureau, 2018). According to the Medical Administration Department, Yunnan Province Bureau of Health, in 2018 the average turnover rate of new nurses was 16% in the Second Affiliated Hospital of KMU; 12.6% in the Affiliated Ganmei Hospital of KMU; and 3.4% in the Affiliated Yan'an Hospital of KMU. Among the new nurses leaving their positions, most nurses did not recognize their work, were not satisfied with the work environment or atmosphere, or had less trust in their managers. Most of them had awareness and ideas of how to improve their work performance, but they did not know where to start and how to evaluate their responsibilities (Health Commission of Yunnan Province, 2015). Hospitals affiliated with KMU expect nurses to have extensive knowledge and stay up-to-date. When nurses are met with high expectations

and have high workloads beyond their ability, they may experience burnout and a desire to leave.

To better understand turnover intention among new nurses, a study of the factors related to turnover intention is necessary. The results of this study provide evidence for hospital managers to develop strategies for solving the problem of role ambiguity among new nurses and reducing the turnover rate.

## Objectives

The study aimed to explore the level of role ambiguity, to explore the level of turnover intention and to examine the relationship between role ambiguity and turnover intention of new nurses in affiliated hospitals of Kunming Medical University, the People's Republic of China.

## Conceptual framework

The conceptual framework of this study is based on the literature review. Role ambiguity refer to the lack of clear identification of new nurses' roles and determination of responsibilities in line with the roles. Included scope of responsibility, the actions necessary to perform the duties, performance appraisal and consequences of non-performance of duties. (Beauchamp, Bray, Eys, & Carron, 2002). The turnover intention of this study refers to the voluntary willingness of employees to leave the organization (Roodt, 2004), and included thinking of quitting, intention to quit and intention to search. When the new nurse understands their role clearly enough, constantly strengthens their relevant knowledge and

operation skills, actively participates in the study, improves the working ability and self-confidence, and enhances the stress ability. It can effectively reduce the role ambiguity and turnover intention of the new nurses in the affiliated hospitals of Kunming Medical University, the People's Republic of China. The relationship between role ambiguity and turnover intention among new nurses in Affiliated Hospital of Kunming Medical University, the People's Republic of China was explored in this study.

## Methodology

A descriptive correlational research design was used to explore the relationship between role ambiguity and turnover intention of new nurses in affiliated hospitals of Kunming Medical University, the People's Republic of China.

### Population and Sample

The target population for this study consisted of 1,233 nurses who had been working for less than 3 years at the Affiliated Hospitals of Kunming Medical University in the People's Republic of China. Inclusion criteria were registered nurses who worked in these three hospitals for less than three years and were registered nurses who provided direct care to patients. Exclusion criteria were registered nurses who were on vacation, maternity leave, study leave, or who participated in the reliability test, as well as registered nurses who were nursing administrators. According to the Yamane formula (Yamane, 1973), the sample size was 302 nurses. Considering the possible loss of participants,

20% of the sample size (61 nurses) was added to the sample (Best & Kahn, 2003). Therefore, the total sample consisted of 363 nurses working at three hospitals. The stratified random sampling method was used to select nurses from the staff nurses' name list in each unit of the three secondary hospitals.

### Research Instruments

The research instruments included:

1. A Demographic Data Form which was developed by the researcher to collect the personal information of participants including age, gender, hospital, years working at their present hospital, education level, marital status and working unit.

2. The Chinese version of the Role Ambiguity Scale (RAS) developed by Beauchamp et al. (2004) and translated by the researcher which consists of a 20-item scale with 4 dimensions including: 1) scope of responsibility; 2) role behavior ambiguity; 3) role evaluation ambiguity; and 4) role consequences ambiguity. Each of these 4 dimensions included 5 items, each of which was scored on a 5-point Likert scale ranging from 1 (strongly agree) to 5 (strongly disagree) with the total score divided into 3 levels (Best & Kahn, 2003). The interpretation of the scores was classified as high, moderate, or low using the class interval formula  $\bar{X} = (\bar{X}_{\max} - \bar{X}_{\min})/k$  (Best & Khan, 2003). In order to keep the intervals from overlapping, 0.01 was added to each subsequent lower limit (Polit, 1996). Thus, the mean score was classified as high level (3.68 - 5.00), moderate level (2.34 - 3.67), or low level (1.00 - 2.33).

3. The Chinese version of the Turnover Intention Questionnaire (TIQ) developed by Roodt (2004) was translated by the researcher. It consists of 14 items with each item scored on a scale of 1 to 7 points, with the total score divided into 3 levels (Best & Kahn, 2003). In order to keep the intervals from overlapping, 0.01 was added to each subsequent lower limit (Polit, 1996). Thus, the mean score was classified as high level (5.01 - 7.00), moderate level (3.01 - 5.00), or low level (1.00 - 3.00).

The Chinese versions of the RAS and TIQ were translated using back-translation. The researcher translated the original scale into Chinese. A person who is an English speaker in a university translated the Chinese version scale into English. One English expert compared the original scale and the back-translated English-version scale to confirm the equivalence, regarding whether she thought any points would lead to misunderstandings, or whether the two English versions showed the same meaning. The English expert gave feedback that there was agreement between the two versions. The researcher and her advisor discussed and revised the discrepancies until they were satisfied with the current version.

The Chinese version of the Role Ambiguity Scale and the Turnover Intention Questionnaire were tested for their reliability among 30 nurses from the First Affiliated Hospital, the Second Affiliated Hospital, and the Affiliated Ganmei hospital of KUM. The Cronbach's alpha coefficients of the RAS were 0.74, and the dimensions of ambiguity related to scope of responsibilities, role behavior ambiguity, role

evaluation ambiguity, and role consequences ambiguity were 0.73, 0.70, 0.77, and 0.71, respectively. The Cronbach's alpha coefficients of the TIQ were 0.83.

### **Ethical considerations**

The research proposal was approved by the Research Ethics Review Committee, Faculty of Nursing, Chiang Mai University, Thailand (No.019/2019). The participants were informed that they were free to refuse participation or to withdraw from the study at any time without losing any benefits and without it affecting their performance evaluations. A statement was put in an information sheet to guarantee the confidentiality and anonymity of individual responses. Only code numbers were used for the questionnaires. Information offered by the participants was only used for the current study and remained confidential. A research consent form was given to the participants who were willing to participate.

### **Data collection**

Data were collected from May to June 2020. The researcher met with the directors of the nursing department of each hospital and introduced them to the study's objectives and methods, followed by a request for a coordinator to distribute and collect the research questionnaires, a total of 363 questionnaire packages including the research information form, inform consent form, questionnaire, and return envelope. At all three KUM Affiliated Hospitals, the researchers met with the nurse supervisor to inform them about the purpose and benefits of the study and ask for the appointment of a coordinator

in each hospital. The researcher collected questionnaires from the First Affiliated Hospital of KMU and two coordinators distributed the questionnaires to the other two hospitals, the Second Affiliated Hospital of KMU and the Affiliated Ganmei Hospital of KMU. After the participants completed the questionnaires and consent forms, they put them in two separate boxes. Then the researcher collected the questionnaires from the boxes and sent them to the research team. Of the 363 questionnaires that were distributed, 360 were returned (99.17%); 2 questionnaires were incomplete (0.55%) and were excluded. Thus, 358 completed questionnaires (98.62%) were used for data analysis.

### Data analysis

Social Sciences (SPSS) software Version 13.0 was used for data analysis in this study. Significance level alpha was set at 0.05. Frequency, percentage, mean, and standard deviation were used to analyze the demographic data. Pearson's product-moment correlation analysis was used to analyze the relationship between role ambiguity and turnover intention since they had normal distribution as tested by Kolmogorov-Smirnov's test.

### Results

According to the Requirements of Standardized Training Manual for new nurses in the affiliated hospitals of Kunming Medical University, each nurse needs to rotate between various hospital departments, including medical, surgical, ICU and emergency, for six months. Obstetrics, pediatrics, and operating room

rotated for four months. Most of the participants (71.79%) were 23-25 years old, while 28.21% of the participants were 20-23 years old; most participants were female (91.06%) and 82.40% of the participants were single. As for educational level, 29.05% of the participants held an associate's degree, while 70.95% of the participants held a bachelor's degree. More than half of the participants had 1 year of work experience and 35.47% of the participants had 2 years of experience. These participants came from different departments. Most of them were working in the medical department (39.66%), followed by the surgical (22.07%) and obstetrics (4.47%) departments.

The scope of responsibilities was found to be at a moderate level with a mean of 2.97 (SD = 0.46). Role behavior ambiguity was found at a moderate level with a mean of 2.79 (SD = 0.36), and role evaluation ambiguity had the highest score with a mean of 3.21 (SD = 0.59) but was also at a moderate level. The lowest score at a moderate level was role consequences ambiguity with a mean of 2.74 (SD = 0.33). The overall score for role ambiguity had a mean of 2.93 (SD = 0.28) and was at a moderate level (Table 1). Thinking of quitting was found at a moderate level with a mean of 4.67 (SD = 0.76). The intention to quit was found at a moderate level with a mean of 4.56 (SD = 0.69). The intention to search had the highest score at the high level with a mean of 5.34 (SD = 0.89). The overall score for turnover intention had a mean of 4.78 (SD = 0.85) and was at a moderate level (Table 2). In addition, new nurses' turnover intention was found to be at a moderate level

( $\bar{X} = 4.78$ ,  $SD = 0.85$ ). The results show that role ambiguity and turnover intention ( $r = 0.54$ ,  $p < 0.01$ ) (Table 3).

**Table 1** Mean, range, standard deviation, and overall level of and in each dimension of role ambiguity of participants ( $n = 358$ )

Role Ambiguity	Mean	SD	Level
Scope of Responsibilities	2.97	0.46	Moderate
Role Behavior Ambiguity	2.79	0.36	Moderate
Role Evaluation Ambiguity	3.21	0.59	Moderate
Role Consequences Ambiguity	2.74	0.33	Moderate
Overall	2.93	0.28	Moderate

**Table 2** Mean, range, standard deviation, and overall level of and in each dimension of turnover intention of participants ( $n = 358$ )

Turnover intention	Mean	SD	Level
Thinking of quitting	4.67	0.76	Moderate
Intention to quit	4.56	0.69	Moderate
Intention to search	5.34	0.89	High
Overall	4.78	0.85	Moderate

**Table 3** The relationships between role ambiguity and turnover intention participants ( $n = 358$ )

Role Ambiguity Items	Turnover Intention
Ambiguity Related to Scope of Responsibilities	$r = 0.34^{**}$
Role Behavior Ambiguity	$r = 0.41^{**}$
Role Evaluation Ambiguity	$r = 0.44^{**}$
Role Consequences Ambiguity	$r = 0.44^{**}$
Overall	$r = 0.54^{**}$

$^{**} p < .01$

## Discussion

### Role ambiguity

The results of the scope of responsibilities were at a moderate level, indicating that new nurses are not knowledgeable about the scope of their role. A nurse may be aware of the scope

of their role, but not of their responsibilities in terms of team leadership or teamwork (Beauchamp et al., 2004). Moreover, all the participants were new nurses and ranged in age from 20-25. A majority of the nurses (231 or 64.52%) had been working for just one year



or less. Being so new, it is questionable whether the new nurses can successfully change from nursing students into qualified clinical nurses, and the requirements of their positions are directly related to the quality of clinical nursing. It is challenging for them to successfully combine theory and practice, which can easily produce the illusion that they are not valued and may affect their intention to change roles (Liu et al., 2013). This makes it difficult for them to have a clear understanding of the scope of their roles.

Role behavior ambiguity was found at a moderate level. Every nurse working in KMU affiliated hospitals has to rotate to the emergency room, ICU, internal medicine, obstetrics, operating room, pediatrics, surgery and other departments over 3 years (Kunming Health Bureau, 2018). Faced with different patients in different departments, they do not have a good understanding of the nurse's behavior. This rotational stage is not only to overcome the conflict between theory and reality but also to adapt to the new role. In China, with the rapid development of the social economy and medical infrastructure, the requirements for nursing staff are getting higher and higher. On the other hand, due to the severe shortage of nursing human resources, the short adaptation period for new nurses also leads to great pressure. This makes it difficult for new nurses to adapt to their roles (Bosselut et al., 2012).

In this study, there were one hundred and four (29.05%) nurses with an associate's degree. Compared with nurses holding a bachelor's degree, the nurses with an associate's

degree showed a higher percentage. This result is consistent with previous research results (Theresa, & Sabo 2008). Participants felt a high level of role evaluation ambiguity from their organizations, indicating that many nurses in these organizations feel that their environment is not supportive or is not aware of their clinical contributions. Under the condition of the holistic nursing mode, the scope of nurses' functions and roles is greatly expanded which makes it difficult for the nurses to perceive the diverse needs of patients, which is manifested as unclear or in unclear requirements of their work. Similarly, as the leaders of some departments fail to play a good leadership role, new nurses do not know what responsibilities they should fulfill after entering the department which also has something to do with the leader's unclear job responsibilities (Yang & Huang, 2015).

The moderate level for role consequences ambiguity indicates that new nurses who work in the Affiliated Hospitals of KMU are ambiguous about their role consequences. The Affiliated Hospitals of KMU provide comprehensive hospital treatment and nursing care to patients with severe and complicated diseases. During the time of this study, patients were in a critical condition; as such, nurses needed to pay attention to patients' physical and emotional needs. This broad task list may easily lead to nurse burnout or mental fatigue, especially due to the lack of work experience among young nurses, as well as the continued learning of specialized theoretical knowledge and nursing skills, the need to familiarize themselves with the hospital rules and regulations and the

pressures that come with being caregivers, educators and communicators for patients, doctors and other nursing staff.

#### Turnover intention

The moderate level of turnover intention in this study is lower than that of previous studies by Yang & Huang (2015) and Chen et al. (2016). This can be explained by the Mobley exit cognitive model (Mobley, 1977), which represents a psychological decision that interferes with an individual's attitude to work and the decision to stay or leave. Poor management and lack of flexibility in scheduling were the main complaints among new nurses. Stress at work contributes to turnover intention, and new nurses often complain about work overload and lack of support. The difference between an idealized role concept and a realistic role concept is difficult to reconcile and causes nursing role conflict, which affects the role ambiguity of new entrants (Chen et al., 2016). The continuous development of nursing work in China also provides more opportunities for nurses, such as community hospitals, private hospitals and so on. The smaller family burden and greater plasticity of new nurses increases their chances of obtaining external work (Yang & Huang, 2015). When the multi-dimensional performance appraisal system is developed, nurse work data is collected, and the system automatically generates a nurse performance appraisal score. This leads nurses, to a certain extent, to stay and stabilize the nursing team (Chen, Li, Li, Lyu, & Zhang, 2018).

To reduce the rate of turnover among new nurses, the development of peer support

systems, stratified training to promote the spiritual growth of nurses, and colleague support committees through the organization of expert teaching should be implemented (Chen et al., 2018). Wang et al. (2019) pointed out that a high workload causes physiological fatigue among nurses, especially new nurses. Chen (2005) pointed out that job type, hospital rank, title and age, as well as physical and psychological stress were factors affecting nurses' happiness. These problems were mainly reflected in the turnover intention of the study participants.

#### Relationship between role ambiguity and turnover intention

The results of this study found that the mean overall role ambiguity score was significantly positively related to the study participants' turnover intention. This may be due to the fact that most nurses do not know enough about the nature of their work. Not handling problems at work well leads them to think about leaving. Due to the nature of the integrated role, caregivers must deal with multiple expectations of patients and management (Johnston & Marshall, 2015). Patients' needs for nursing behaviors are more diversified, making it difficult for nurses to perceive patients' various needs, which manifests as unclear requirements for nursing work; that is, role ambiguity occurs. As a result of long-term uncertainty and difficulty in coping with high-load work, nurses experience extreme pressure, work fatigue and even frustration, namely emotional exhaustion, resulting in a strong turnover tendency. Because of prior

roles, relationships, responsibilities, knowledge and skills, demand, confusion, doubt, and feelings of being overwhelmed and confused, new nurses do not know how to evaluate their new role within the hospital and don't know what the standard evaluation is; thus, they have intent to leave. In the face of comprehensive work or different diseases, they are more likely to have turnover intention than nurses with longer work experience. With the transformation of the nursing mode to a holistic nursing mode, the nurse-patient relationship has changed from "disease-centered" to "patient-centered," and the scope of nurses' functions and roles has been greatly expanded. Therefore, nurses may have a stronger subjective experience of ambiguous roles (Li & Xu, 2016).

### Implications of the study

Due to moderate levels of role ambiguity and turnover intention, as well as the positive relationship between role ambiguity and turnover intention, the implications of the study are as follows:

1. Nurse managers should raise awareness to help the nursing administrators be able to formulate a plan to reduce the ambiguity of roles for new nurses. Furthermore, nursing administrators need to help new nurses better adapt to new environments and roles.

2. The administrator should raise the awareness of nursing administrators in the Affiliated Hospitals of KMU to help nursing managers pay more attention to new nurses, earnestly understand the needs of new nurses, establish a complete training plan, provide more

opportunities for further studies, pay attention to the construction of nursing culture, create a healthy and positive working atmosphere, and assist new nurses. Nursing administrators should establish their own career planning to help new nurses successfully complete the transition from school to work.

### Limitations of the study

A limitation of the study is its descriptive correlation research design. I investigated 3 hospitals in Yunnan Province, covering most regions of the province, but our sample was limited to secondary and tertiary hospitals. Consequently, the sample might not be representative of community or township hospitals in other provinces.

### Conclusions and Recommendations

1. Further exploration of other factors related to role ambiguity of new nurses in Affiliated Hospitals of KMU, such as depression and job satisfaction, is required.

2. Future research is needed to replicate this study in other regions or other types (or levels) of hospitals in Yunnan Province, the People's Republic of China.

3. New nurses' turnover intention needs to be studied with other related factors, such as demographic characteristics, in future research.

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