

Predicting Nurses' Turnover Intention by Demographic Characteristics and Work Adaptation Disorder in Changchun

Wei Meng^{a*} and Yu-Jin Liu^b

College of Humanities of Northeast Normal University, Changchun, China

^aEmail:402276235@qq.com ^bEmail:1257819211@qq.com

*Corresponding author: Wei Meng

Keywords: Nurses, Turnover intention, Work adaptation

Abstract: Objective To survey the current status of nurses' turnover intention in Changchun, and to examine the impact of demographic variables and work adaptation disorder on nurses' turnover intention. **Method** We investigated 315 registered nurses working in 3 Three-A general hospitals of Changchun through the randomized sampling method. Social demographic survey scale, turnover intention scale and work adaptation disorder scale are included in the questionnaires. Data analysis included descriptive statistical, one-factor analysis of variance, Pearson correlation analysis and hierarchical multiple regression analysis. **Results** The average score of nurses' turnover intention in Changchun was 2.21 ± 0.58 , The nurses' turnover intention was significantly different in gender, departments, professional rank, monthly income. Work adaptation disorder was positively related to turnover intention, and it was a significant predictor of turnover intention. **Conclusions** The results of the study showed that the nurses' turnover intention in Changchun was strong. Promoting nurses to adapt nursing job is a good strategy to reduce turnover intention.

1. Introduction

Nurse shortage becomes a key factor of perplexing the development of nursing career around the world now. High demission rate is a key factor of lacking of nurses^[1]. At the moment, the phenomenon of nurse demission in China is very severe. Turnover intention is the best index of predicting staff turnover behavior, Miller and Bedeian defined it as mental disposition of staff who wanted to leave existing organization or operating post^[2,3]. At present, research about nurses' turnover intention in Changchun is lesser, and the researches about nurse work adaptation disorder were less in China. At the same time, there is no research about the correlation between nurses' work adaptation disorder and turnover intention in China. Our study discussed this question precisely.

2. Participants and Methods

2.1. Participants.

Participants were randomly selected from 3 Three-A general hospitals in Changchun. Inclusion criteria: (1) had nurse qualification certificate; (2) informed consent and participate in our study voluntarily. Exclusion criteria: (1) postgraduate or intern; (2) not working during the survey period (i.e. on vacation, at school, or on maternity leave).

2.2. Methods

2.2.1. Research Tools. (1) Social demographic scale: Including age, gender, working years, marital status, educational level, professional rank, departments, employment, work task, monthly income. (2) Turnover intention scale: Turnover intention was measured using the Turnover Intention Scale established by Michael & Spector in 1982^[4]. In our study, we used the scale translated and revised by Li, J.Y and Li, D.R of Taiwan^[5]. It includes 6 items, item 1 and item 6 constitute turnover intention I and it denotes the possibilities of staff resignation; item 2 and item 3 constitute turnover intention II and it denotes the motivation of staff to find other job; item 4 and item 5 constitute

turnover intention III and it denotes the possibilities of staff to acquire outer work. Respondents reported on a four-point Likert scale, with 1 representing “never”, 2 representing “a few times”, 3 representing “sometimes”, 4 representing “often”. Sum of the 6 items’ scores was the total scores of nurses’ turnover intention. The higher the scores, the stronger the nurses’ turnover intention. Li divided the level of turnover intention into 4 grades which accorded to the total average scores. If the total average scores ≤ 1 , it represented very low; if >1 and ≤ 2 , it represented low; if >2 and ≤ 3 , it represented high; if >3 , it represented very high^[5]. In our pilot study, the Cronbach’ s alpha coefficient for this scale was 0.86. (3) Work adaptation disorder scale: Work adaptation disorder was measured using the Work Attitude Scale established by Tyollaska^[6]. The scale included 37 items, with 29 items answering “yes” scoring 1 point, 8 items answering “no” scoring 1 point, the total scores was 37 points. The higher the scores, the more individual lack of work motivation and adapt badly. In our pilot study, the Cronbach’ s alpha coefficient for this scale was 0.87.

2.2.2. Data Analysis Method. SPSS21.0 for Windows was used to perform the statistical analyses. Descriptive statistical was used to describe social demographics, one-factor analysis of variance was used to compare scores of nurses’ turnover intention according to demographics, Pearson correlation analysis was used to measure correlation between turnover intention and work adaptation disorder, hierarchical multiple regression analysis was used to estimate the variance in turnover intention. A significance level of 0.05 or lower was considered statistically significant.

3. Results

3.1. Turnover Intention Scores of Nurses According to Demographics

The Statistically significant results were shown in Table 1.

Table 1. Turnover intention scores of nurses according to demographics (N=315)

Variable	n(%)	$\bar{x} \pm s$	F/t	P
Gender				
male	20(6.3)	15.00 \pm 3.36	5.484	0.020
female	295(93.6)	13.13 \pm 3.47		
Professional rank				
junior RN	217(68.9)	14.30 \pm 3.27	10.910	0.000
senior RN	56(17.8)	14.91 \pm 4.27		
nurse in charge	36(11.4)	11.19 \pm 3.42		
associate professor nurse	6(1.9)	11.33 \pm 1.51		
Departments				
paediatrics wards	43(13.7)	12.74 \pm 3.42	5.500	0.000
gynaecology obstetrics wards	81(25.7)	12.31 \pm 3.08		
emergency wards	48(15.2)	15.02 \pm 3.19		
surgical wards	72(22.9)	13.06 \pm 3.78		
medical wards	71(22.5)	12.59 \pm 3.32		
Monthly income(RMB)				
≤ 2000	19(6.0)	15.63 \pm 4.80	2.613	0.025
2001-3000	59(18.7)	12.71 \pm 3.25		
3001-4000	86(27.3)	13.56 \pm 3.09		
4001-5000	63(20.0)	12.97 \pm 3.58		
5001-6000	49(15.6)	13.29 \pm 3.17		
>6000	39(12.4)	12.59 \pm 3.81		

3.2. Mean Scores, Correlations of Nurses’ Turnover Intention and Work Adaptation Disorder

The results were shown in Table 2.

Table 2. Mean scores, correlations of nurses' turnover intention and work adaptation disorder (N=315)

Variable	$\bar{x} \pm s$	Ti I	Ti II	Ti III	Ti	Work attitude
Ti I	1.98±0.77	(0.76)				
Ti II	1.96±0.77	0.691*	(0.73)			
Ti III	2.68±0.61	0.367*	0.325*	(0.83)		
Ti	2.21±0.58	0.877*	0.862*	0.657*	(0.86)	
Work attitude	10.86±5.98	0.333*	0.316*	0.057	0.307*	(0.87)

*P < 0.01, Ti=Turnover intention, Data in brackets show the reliability coefficients for the study variables.

3.3. Hierarchical Multiple Regression Analysis of Factors Related to Nurses' Turnover Intention

The results were shown in Table3.

Table 3. Hierarchical multiple regression analysis of factors related to nurses' turnover intention

Variables	Model 1 standard β	Model 2 standard β
Gender	-0.128*	-0.100
Professional rank	-0.026	-0.033
Departments	0.063	0.053
Monthly income	-0.098	-0.090
Work adaptation disorder		0.295**
F-value	2.555	8.293
R ²	0.032	0.118
Adjusted R ²	0.019	0.104
R ² -change	0.032	0.086
F-change	2.555*	30.279**

*P < 0.05, **P < 0.01. Dummy coded: gender(male=1, female=2); professional rank(junior RN=1, senior RN=2, nurse in charge=3, associate professor nurse=4); departments(paediatrics wards=1, gynaecology and obstetrics wards=2, emergency wards=3, surgical wards=4, medical wards=5)

4. Conclusions

4.1. Correlation Factors Affecting Nurses' Turnover Intention in Changchun According to the Demographic Data

4.1.1. Gender, Professional Rank. Gender affected nurse turnover intention. The turnover intention of male nurses was stronger than female nurses in Changchun. It is maybe related to those reasons: (1)restrained by traditional thought: Chinese traditional view considered that the man shouldn't be engaged in working about taking care of other people, but there is a large contrast between nursing work and traditional male image. Sometimes, they suffered repulsion of patients, and it caused large mental stress to them, and then they leaved the position. (2)restrained by society: in China, the society does not accept male nurses, and their status and payment are low. They lack of competitiveness compared with other occupations. (3)lack of occupational sense of achievement: nursing work makes male nurses lacking of occupational sense of achievement, and they have difficulties in achieving self-worth. All of these give rise to male nurses' turnover intention^[7,8].

Professional rank was a factor of affecting turnover intention. Junior RN and senior RN had stronger turnover intention than nurse in charge and associate professor nurse. This finding is consistent with the research in China^[9]. The working years of Junior RN and senior RN are relatively short, and they lack of work experience, can not feel up to current job and cope with stress better. Therefore the level of their turnover intention is higher. On the contrary, the working years of nurse in charge and associate professor nurse are long, they acquired certain social status

and work identification, obtained corresponding economic income. These lead to the lower level of their turnover intention.

4.1.2. Departments, Monthly Income. Departments was also a factor of affecting turnover intention. Emergency wards nurses had the highest turnover intention. Some previous researches also proved this issue^[10,11]. This may be connected with emergency wards where nurses are often faced with death, easily generate conflicts with doctors and kinsfolks of patient, have huge workloads and working pressure^[12]. Mosadeghrad^[13] proved that occupational stress was positively associated with nurses' turnover intention.

Nurses' turnover intention was also influenced by monthly income. Our study showed that the nurses who earned 2000RMB had the strongest turnover intention. This may be connected with nurses thought that compared with their responsibilities and nursing work demand, they should acquire more income. But in China, income of nurses is not always equal to their contributions, especially contract-employed nurses.

But Al-Hussami found that income had no effect on turnover intention of Jordanian nurses^[14].

4.2. The Nurses' Turnover Intention in Changchun was Strong and it was Positively Related to Work Adaptation Disorder.

Our findings revealed that the turnover intention of nurses in Changchun was strong. It is consistent with the previous researches in China^[15,16]. The turnover intention III had the highest scores. It revealed that the possibility of nurses achieved outside work was large. This also was same as other study^[17,18].

In our study, work adaptation disorder was positively related to turnover intention. The higher scores of nurses' work adaptation disorder, the stronger nurses' turnover intention. In addition, work adaptation disorder was related to turnover intention I and turnover intention II, it was found to have no effect on turnover intention III. That indicated that promoting nurses to adapt nursing job could recede nurses' motivation of finding other job, and reduce the possibility of resignation.

4.3. Explanatory Factor for Nurses' Turnover Intention

The hierarchical multiple regression analysis indicated that work adaptation disorder was the strong predictor of nurses' turnover intention. On the one hand, work adaptation disorder means lacking of work motivation. Factors such as nurses' low payment and lacking of social acceptance affect nurses' work aspiration; factors such as monotonous and repetitive nursing work, lacking of challenge affect nurses' work desire. Thus, it is difficult to stimulate nurses' working enthusiasm, then lead to nurses lacking of work motivation, job satisfaction decline, arise turnover intention. On the other hand, work adaptation disorder means work maladaptation. Chen Lifang found that work maladaptation could give rise to work stress, and then lead to nurses leaving the position^[19]. This is consistent with our study. So managers can take it as reference in nursing management.

5. Acknowledgement

This research was financially supported by the Jilin province health and welfare education research base, and Jilin province Education science Foundation(ZD18125).

6. References

- [1] Angerami EL, Gomes DL, Mendes IJ. Perma-nence of nurses in their profession [J]. *Rev Lat Am En-fermagem*, 2000, 8(5): 52-57.
- [2] Bedeian AG, Armenakis AA. A path-analytic study of the Consequences of Role Conflict and Ambiguity. *Academy of Management Journal*, 1981, 24(2):417-424.
- [3] Miller LM. An evaluation of the Mobley, Homer, Hollingsworth model of employee turnover. *Journal of Applied Psychology*, 1979, 509-517.

- [4] Michael J.E, Spector P.E. Causes of employee turnover: A test of Mobley, Griffeth, Hand & Meglino model[J]. *Journal of Applied Psychology*, 1982, 67(1):33-59.
- [5] Dong-Rong Li, Jing-Yuan Li .Relevant research among role conflict, organizational commitment, turnover intention under matrix organization structure[D]. Taiwan: University of Communications management science institute, 2000.
- [6] Ji Shumao. Minnesota multiphasic personality inventory: new research and multicategory explanation[M]. Beijing: science press, 2004:319.
- [7] Chen Xiaolin. Study on the turnover situation of nurses in tertiary hospital[D].
- [8] Shandong: Shandong University, 2012. Chen Haiyu. Study on the current situation and countermeasures of the career development of male nurses in China[J]. *Chinese Journal of Trauma and Disability Medicine*, 2013, 21(9):474-475.
- [9] Ge Yurong, Zhao Fenghai. Research of nurses' turnover intention and related factors in three-grade hospitals in Yinchuan, Ningxia province[J]. *Ningxia Medicine Journal*, 2013, 35(6):575-576.
- [10] Feng Hui. The relationship among nurses' work environment and job satisfaction, turnover intention in nursing staff[D]. Shandong: Taishan medical college, 2011.
- [11] Zhou Ping. Nurses' intention to leave and related factors[D]. Zhejiang: Zhejiang University, 2008.
- [12] Jiang Pingjuan. Stress faced by emergency department nurses and its countermeasures[J]. *Chinese General Practice Nursing*, 2014, 12(11):1036-1037.
- [13] Mosadeghrad AM. Occupational stress and turnover intention: Implications for nursing management[J]. *International Journal of Health Policy and Management*, 2013, 1(2):169-176.
- [14] Al-Hussami M, Darawad M, Saleh A & Hayaineh FA. Predicting nurses' turnover intentions by demographic characteristics, perception of health, quality of work and work attitudes[J]. *International Journal of Nursing Practice*, 2014, 20:79-88.
- [15] Cai Hui, Wang Meixin. Study on relationship between psychological capital and turnover intention of nurse in a three-grade A hospital in Urumqi city[J]. *Chinese nursing research*, 2014, 28(4):1299-1300.
- [16] Zhang Zhaohua. Effect of structural empowerment and organizational commitment on nurse' intention to leave[J]. *Journal of Nursing Science*, 2014, 29(6):55-56.
- [17] Zheng Chunfang, Zhu Haili. An analysis on 515 nursing staff's turnover intention [J]. *Chinese Nursing Management*, 2007, 7(4):29-31.
- [18] Wang Fengju, Li Nan, Zhang Guoli. A study of relationship between job embeddedness and turnover intention of nurses[J]. *Journal of Nursing Science*, 2014, 29(3):59-61.
- [19] Chen Lifang , Gao Shu hua , Luo Xiuyuan. Study on orientation at work and turnover intention of newly employed nurses[J]. *Tianjin Nursing*, 2010, 18(2):70-71.