

Role conflict and role ambiguity as predictors of turnover intention among nurses

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Abstract

Context: Turnover intention, the nursing profession, is one of the major challenges for the nursing staff around the world that leads to reduce work motivation and poor quality of care.

Aim: The aim of this study is to determine relationship among role conflict, role ambiguity, and the turnover intention the nursing at hospitals of the Qom University of Medical Sciences in 2018, Iran.

Setting and Design: A cross-sectional survey was conducted at five hospitals of Qom Medical Science University.

Materials and Methods: Two hundred and sixteen nurses included to the study using the simple random sampling a three part questionnaire asking for information on demographic characteristics, role conflict and role ambiguity, and nurses' turnover intention was used as a data gathering tool.

Statistical Analysis Used: Data were analyzed using the univariate and multivariate logistic regression.

Results: 48.8% of nurses intended to leave their profession. In a univariate logistic regression model, it was found that role conflict, role ambiguity, being single, and working overtime increased nursing staff turnover intention. Furthermore, increase in age, work experiences, official recruitment, and a fixed morning shift decreased nurses' turnover intention. In multivariate logistic regression model, only role conflict and role ambiguity were significantly associated with turnover intention the nursing profession.

Conclusion: Based on the findings, role conflict and role ambiguity can predict nursing staff turnover intention. Therefore further attention to occupational variables seems to be necessary to reduce high nursing staff turnover intention.

Keywords: Role ambiguity, Role conflict, Turnover intention

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INTRODUCTION

Role conflict is understood as the simultaneous occurrence of two (or more) role outputs or requirements, in such a way that the performance of one of them makes the performance of the other more difficult.^[1] This term is one of the variables that has been seen frequency in different professions.^[2] It has been demonstrated that role conflict resulted in decreasing organizational commitment and job involvement, and therefore, a decrease in nurses and auxiliary nurses' performance.^[3] Moreover, Vanishree showed that role conflict is one of the factors that increase job stress and reduce satisfaction.^[4] According to studies, role conflict can be one of the factors influencing the turnover intention.^[4,5]

Nurses' turnover intention is the perception of individuals to turn over and leave the work.^[6] Leaving profession is one of the most reasons of nursing shortage that be considers as an international problem in nursing field.^[7,8] Nursing shortage and high turnover rates are common reasons for closing hospital units and delaying treatments, with serious consequences for providing timely and high quality care, and patient safety.^[9] In 2014 in Iran, nursing shortages had become a major challenge for health-care system managers.^[10] The average of turnover intention in Colorado hospital in US in 2012 and among 1250 nurses has been estimated about 15%–36%.^[11] High turnover in health care is costly, the estimated total turnover costs of one nurse to range from \$62,000 to \$67,000, depending on the service line, including the costs of recruitment, selection, orientation, training, and productivity loss.^[12,13] Therefore, identifying and controlling the factors affecting the turnover intention the nursing profession will have a significant impact on reducing costs.^[11] Karimi *et al.* revealed that there was a significant, positive relationship between role conflict, role ambiguity, and occupational stress. The result also showed that role conflict was the strongest predictor to predict occupational stress.^[14] Role ambiguity occurs when an individual does not have the necessary information available to complete the required duties of a particular position. This often results in coping behaviors by the holder of that position to avoid sources of stress including using defense mechanisms to distort the reality of the situation.^[15] In a study conducted in Australia reported that job satisfaction was significantly negative correlated with role ambiguity and role stress. Whatever nurses had more role ambiguity, then they had less job satisfaction.^[16] Tang and Chang also showed that role ambiguity had negative effect on staffs' creativity.^[17] Today, however, numerous studies have been conducted on nurses' turnover intention, but we couldn't find inadequate research on nursing turnover related to role conflict and

role ambiguity. Thus, this study investigated the relationship between role conflict and role ambiguity with the turnover intention the nursing profession.

MATERIALS AND METHODS

This cross-sectional survey was conducted at five hospitals affiliated to Qom Medical Sciences University. The total study sample size including 216 nurses were randomly selected. Nurses were randomly selected from the list of nurses in these hospitals. The eligible participants were nurses with bachelor or master's degree in nursing and at least 1 year of experience in hospitals. The tool used for gathering data was a questioner consisted of three parts: The first part of demographic information questionnaire was age, sex, position (nurses, head nurses, and supervisors), years of experience in nursing, marital status, shift worked, and employment status.

The second part of the questionnaire was aimed at perceptions of role conflict and ambiguity using Rizzo *et al.* tool, composed of 14 questions which eight measure the strength of the role conflict variable and the six measures the strength of the role ambiguity variable. All items were scored on a 4-point Likert scale from always true = 4 to never true = 1. The total scores of the questionnaire for role conflict ranged between 6 and 24 and for role ambiguity ranged between 8 and 32. The highest score showed the highest role conflict and role ambiguity.^[18] The reliability of the Persian version of this questionnaire was assessed in terms of internal consistency using the calculation of the Cronbach's alpha coefficient, which was reported as 0.81 for role conflict and 0.85 for role ambiguity.^[14]

The second section included three items related to the turnover intention the job. The nurses were requested to rate their opinion, using a 7-point Likert scale (strongly disagree = 1 to strongly agree = 7); the points were subsequently calculated (ranging from 3 to 21 points). Scores for the turnover intention questionnaire were categorized in three groups: low, moderate, and high, according to lower, medium, and higher quartile of the score distribution. This questionnaire was developed by Kim *et al.* (1996) with a good reliability ($\alpha = 0.86$). The validity and reliability of this instrument were approved in the previous studies.^[19,20] Furthermore, in an Iranian study, this questionnaire had an acceptable internal consistency ($\alpha = 0.86$).^[21] In addition, in the current study, the reliability of this questionnaire was approved by Cronbach's alpha ($\alpha = 0.87$) and test-retest method ($r = 0.88$).

After obtaining the necessary permissions and approvals, the researchers referred to the hospitals and identified

eligible nurses. All nurses were informed of the research process, and informed consent was obtained from them. Then Nurses were asked to complete questionnaire.

Data analysis was performed using the SPSS software version 20 (SPSS Inc., Chicago, IL, U.S.A.). $P < 0.05$ was considered statistically significant. Descriptive statistics were conducted to summarize the demographic characteristics of the sample. Logistic regression (univariate and multivariate) analyses were carried out to determine the association of role conflict, role ambiguity, and turnover intention.

RESULTS

Of these 216 nurses who had been selected in the hospitals, 77.8% of them were female. The mean age of the nurses was 33.23 ± 7.43 years. The years of experience in nursing were 10.89 ± 7.38 in participants. Regarding the educational level, most of them (97%) were bachelor. The full information of demographical characteristics of the nurses is shown in Table 1.

According to the results of logistic regression analysis, three variables including role conflict (odds ratio [OR]: 1.18, 95% confidence interval [CI]: 1.05–1.16), being single,

and overtime work cause to an increase turnover intention the work. On the other hand, getting older, increasing at years of experience, being official employment, and having fixed morning shift caused decreasing turnover intention [Table 2]. Based on multivariate logistic regression analysis, only role conflict (OR: 1.13, 95% CI: 1.05–1.21) and role ambiguity (OR: 1.18, 95%CI: 1.11–1.31) had statistical significant with turnover intention the work [Table 2]. Hence, that increasing one score in role conflict led to increasing of 1.13 times more than turnover. Also increasing one score in role ambiguity led to increasing of 1.18 times more than turnover [Table 3].

DISCUSSION

According to the results of the present study, role conflict was related to nurses’ turnover intention. This means that imbalance of duties and responsibilities that employees have accepted coincidentally resulted in less control on conditions, a lower function, and less satisfaction. Hence, they experience more stress in working and more probable to leave work.

These findings were in accordance to those studies^[14,22] that showed management of stress, role conflict, and role ambiguity can increase motivation in personals. On the other hand, increase motivation can decrease turnover intention.

The result of our study showed more work experiences result in less turnover intention. This is similar with Hariri

Table 1: Demographic characteristics of the subject

Variables	Value
Age (years), mean±SD	33.23±4.43
Working experience (years), mean±SD	10.89±7.38
Gender, frequency (%)	
Male	52 (22.70)
Female	165 (77.30)
Marital status, frequency (%)	
Single	63 (29.20)
Married	153 (70.80)
Educational level, frequency (%)	
Baccalaureate	209 (97.10)
Master of science	7 (2.90)
Schedule, frequency (%)	
Permanent morning	4 (1.80)
Permanent night	11 (5.10)
Permanent evening	5 (2.30)
Rotating day	196 (90.80)
Department, frequency (%)	
Intensive	60 (27.70)
Medical-surgical	55 (25.50)
Emergency	26 (12.00)
Women	23 (10.70)
Pediatic	31 (14.40)
Other	21 (9.70)
Position, frequency (%)	
Nurse	190 (88.00)
Head nurse	14 (6.50)
Supervisor	12 (5.50)
Type of employment, frequency (%)	
Official	81 (37.50)
Contractual	31 (14.40)
Conventional	37 (17.10)
Projective	67 (31.00)

SD: Standard deviation

Table 2: Related variable with nurses’ turnover intention in univariate linear regression model

	OR	95% CI	P
Role ambiguity	1.1	1.16-1.04	0.000
Role conflict	1.21	1.08-1.29	0.000
Age	0.89	0.85-0.93	0.000
Work experiences	0.88	0.84-0.93	0.000
Gender	2.55	0.62-2.06	0.67
Marital status	1.13	1.30-4.98	0.0006
Employment status			
Official	0.22	0.08-0.56	0.002
Contractual	1.27	0.52-3.11	0.89
Conventional	2.01	8.31-0.48	0.34
Projective	-	-	-
Hospital ward			
Critical wards	1.88	6.48-0.51	0.33
Internal medicine	0.87	3.89-0.19	0.85
Surgical ward	0.67	2.33-0.19	0.53
Emergency ward	1.6	5.62-0.45	0.46
Obstetrics wars	0.8	3.76-0.17	0.77
Pediatic ward	0.26	1.72-0.04	0.16
Others	-	-	-
Schedule			
Permanent morning	0.11	0.35-0.03	0.000
Permanent night	0.59	1.52-0.23	0.27
Permanent evening	0.7	1.50-0.33	0.37
Rotating day	-	-	-
Overtime work	4.17	9.92-1.75	0.001

OR: Odds ratio, CI: Confidence interval

Table 3: Related variable with nurses' turnover intention in multivariate linear regression model

	OR	95% CI	P
Role ambiguity	1.13	1.05-1.21	0.000
Role conflict	1.18	1.11-1.31	0.000
Age	1.03	0.81-1.31	0.75
Work experiences	0.89	0.69-1.14	0.36
Marital status	1.25	0.49-3.21	0.63
Employment status			
Official	1.13	0.14-4.99	0.86
Contractual	1.4	0.43-4.60	0.57
Conventional	2.3	10.93-0.49	0.28
Projective	-	-	-
Schedule			
Permanent morning	0.53	0.13-2.25	0.37
Permanent night	0.96	0.30-3.08	0.95
Permanent evening	0.82	1.94-0.35	0.65
Rotating day	-	-	-
Overtime work	2.75	12.64-0.52	0.24

OR: Odds ratio, CI: Confidence interval

et al. research who found that the most numbers of nurses left the work had years of experience <5 years.^[23] Similarly, Hart indicated an inverse correlation between years of work experience and turnover intention.^[24] In contrast to these studies, Nedd^[25] and Zarei *et al.*^[26] showed no relationship between these two variables. Also, Zarei *et al.*, indicated that nurses who were official hiring and fixed morning shift worked had less turnover intention because they earned more salary and feel more job security.^[26] Official hiring nurses are more probable for working at the morning shift, and it may results in less family-work conflict and less turnover intention subsequently. It is notable that, Hariri *et al.* showed nurse evening shifts had the most turnover intention work.^[23]

Overtime work may cause an increase in turnover intention. This result is in agreement with Karimi *et al.* and Hinderer *et al.*, who demonstrated positive relation among overtime working, occupational stress, and turnover intention.^[14,27]

In the present study, increase in age resulted in decrease for turnover intention. This is similar with other research on turnover intention,^[26] However, Al-Hussami *et al.* and Nedd found no statistical significant relationship between age and turnover intention.^[25,28]

It should be considered that with getting older and approaching retirement, job opportunities would be limited and individuals have less flexibility for adapting with a new job. In addition, encounter with challenges and work problems leads to appropriate experiences gradually and helps nurses to more accommodation.

In our findings, being single had direct relationship with turnover intention. In agreement with different studies,^[26,29] generally, bachelors have more new job opportunities

rather than married people, so they have more turnover intention work.

CONCLUSION

Based on the findings, role conflict and role ambiguity were the factors related to turnover intention. Furthermore, in this study we found that age, years of experience in nursing, marital status, kind of shift worked, and overtime working had effects on turnover intention nurse profession.

More attention is necessary to some personal and working variables to reduce role conflicts and turnover intention. Therefore, it suggests conducting a research about assessment of effective factors on decreasing role conflict in nursing. Furthermore, hospitals can help to control and decrease these conflicts with performing activities such as arrangement shifts based on nurses desire. Our findings also suggests that in the recruitment process hospital present complete information of salary, facilities, job advancement, to nurses to decreasing role ambiguity and start to work with work commitment.

Conflicts of interest

There are no conflicts of interest.

Author's contribution

- Hamid Asayesh contributed with data collection and analysis
- Mahsa Haji Mohammad Hoseini contributed with designed, interpretation and writing the first draft of the article and supervised the work
- Fatemeh Shariffard was advisor of the article.

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