Original Article

Intention to Leave the Nursing Profession and Its Relation with Work Climate and Demographic Characteristics

Abstract

Background: Because of the importance of staff shortage in health systems, considering the intention to leave the job and its related factors among nurses is very important. The aim of this study was to identify the association between the intention to leave the nursing profession and work climate and demographic characteristics. **Materials and Methods:** A cross-sectional survey was conducted among 206 nurses, by random sampling method from six hospitals (response rate = 92%). A set of self-administered questionnaires were applied for the evaluation of intention to leave and work climate. **Results:** The high level of intention to leave the profession was expressed by 23.70% of the participants; 25.10% of the participants had the moderate intention. Data analysis revealed that work climate, type of employment, marital status, and overtime working were significant predictors of nurses' intention to leave after controlling other independent variables ($R^2 = 0.10$, $p < 0.001$). **Conclusions:** It was found that work climate and some demographic characteristics can be seen as indicators for intention to leave among nurses; therefore, considering the so-called variables is required. Further studies are needed to identify other aspects of the issue.

Keywords: *Climate, intention, Iran, nursing*

Introduction

Nurses play an important role in providing healthcare services; they account for the largest number of workforce in most healthcare systems.[1] Nowadays, the need for nursing has increased, and its shortage is considered a global problem.[1,2] There is no official data about the shortage of nursing staff in Iran. According to numerous reports, the number of nurses does not provide even a half of the health care system's needs for the population of about 80 million.[3] In addition, with the recent progresses and changes of healthcare systems, the need for more nurses will also increase.[4] Accordingly, along with the existing shortage of nursing, the intention to leave this profession can also exacerbate the shortage;[5] this shortage has negative effects on the quality of health cares.[6] A recent study showed that providing an adequate number of nurses was associated with a reduction of unpleasant outcomes and death risk.[7] The intention to leave is a process of thinking, planning, and decision about leaving a job or profession and does not always lead to actual leaving; it is one step before the actual leaving.[8,9]

A study showed that 80% of the nurses who left their profession intended to leave in the recent year.[10] Individual and occupational factors are associated with this problem. For example, lower age and being male, as two demographic variables, were associated with the intention to leave.[11-14] In an Iranian study, it was revealed that only half of participant nurses (53%) had high intention to stay at nursing profession, and gender, age, and interest in nursing were the main predictors.[15]

Occupational factors such as working in hospital, poor managerial support, lack of meaning for work, role conflicts, lack of opportunities for job promotion, job stress, and work–reward imbalance can be associated with the intention to leave.[10,12,16] Many evidences such as Nantsupawat *et al.*,[17] Arslan *et al.*,[18] and El-Jardali *et al.*[19] showed that specific work stressors, such as negative work climate, have a negative impact on healthcare staff and can reduce satisfaction, causing mental, and physical problems. Negative work climate is a management problem in the organization.[20] "In recent years, work climate has been considered by health

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care systems as a powerful factor among individuals and team levels which can affect the performance of an organization.[21] Reducing job stress and providing adequate staff will enhance job satisfaction which will encourage nurses to stay, and also improving work environments may delay this problem.[12,16,19] Despite the fact that these variables have been studied in different works over the world, there are limited Iranian studies in this area. Therefore, the relationship between the nurses' work climate in the hospital and the intention to leave the profession has been addressed in this study. This study set to answer the following question: Can the nurses' perception of working climate predict the intention to leave their job?

Materials and Methods

A cross-sectional study was conducted from June to December 2016. The study population included the nurses who worked in six educational hospitals of Qom province, Iran. Eligible nurses (*n* = 207) were selected, using random sampling method. A list of all nurses, working in Qom educational hospitals, was prepared from nursing office of Qom University of Medical Sciences (QUMS). The participants were selected randomly from the list. Total sample size was calculated, considering the lowest correlation coefficient between work climate and the intention to leave [α = 0.05 (two-tailed), β = 0.1, *r* = 0.2]. The inclusion criteria were as following: having at least an associate degree in nursing, having at least 1 year experience of working in the present hospital, and the consent for participation. Samples with incomplete questionnaires and the history of psychiatric disorders (based on self-report question) were excluded from the study.

Data were collected, using a questionnaire. The questionnaire was divided into three sections. The first section included demographic information such as age, sex, marital status, job experience, educational level, position, type of employment, type of unit, working shift, and overtime working.

The second section included three items related to the intention to leave 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 intention to leave 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 (α = 0.86). The validity and reliability of this instrument were approved by previous studies.[22,23] Also, in an Iranian study, this questionnaire had an acceptable internal consistency (α = 0.86).[24] In addition, in the current study, the reliability of this questionnaire was approved by Cronbach's alpha (α = 0.87) and test–retest method (*r* = 0.88).

The last section was work climate questionnaire. This questionnaire was originally developed by Gallup Institute,

after a meta-analysis of 105,680 employees, working in 2,528 organizational units, where 531 units were in the healthcare ward. The work climate questionnaire contained 12 items: 1) expectations, 2) instruments and tools, 3) using best capabilities, 4) recognition, 5) appreciation, 6) encourage development, 7) opinion, 8) mission statement, 9) quality work, 10) best friend, 11) progress, and 12) learning and growing. These items were rated on a 7-point Likert scale, ranging from never[1] to always,[7] and the points were subsequently calculated (ranging from 12 to 84 points).[25] This questionnaire was translated into Persian by an English language expert at first; then, the translated-version was compared with the original English version by another expert; after the correction of existing gaps, the final Persian version was provided. In a preliminary study among 30 nurses, the reliability of the questionnaire was confirmed by Cronbach's alpha (α = 0.83) and test–retest method (*r* = 0.81). For data

Table 1: Demographic characteristics of the nursing staff

Variables	Mean (SD)
Age, year	32.20 (7.07)
Working experience, year	8.60 (7.45)
	Frequency (%)
Gender	
Male	47 (22.70)
Female	160 (77.30)
Marital status	
Single	56 (27.10)
Married	151 (72.90)
Educational level	
Upper Diploma	24 (11.60)
Baccalaureate	172 (83.10)
Master of science	11 (5.30)
Schedule	
Permanent morning	2 (1)
Permanent night	9 (4.30)
Permanent night	6 (2.90)
Rotating day	190 (91.80)
Department	
Intensive	58 (28)
Medical-Surgical	51 (24.60)
Emergency	23 (11.10)
Women	21 (10.10)
Pediatric	35 (16.90)
Other	19 (9.20)
Position	
Nurse	185 (89.40)
Head nurse	10 (4.80)
Supervisor	12 (5.80)
Type of employment	
Official	77 (37.20)
Contractual	28 (13.50)
Conventional	36 (17.30)
Projective	66 (31.90)

gathering, self-report questionnaires were distributed among the nurses in each hospital. After the questionnaire completion, it was checked and collected by the researchers.

Data analysis was performed using SPSS Version 20 (SPSS Inc., Chicago, IL, USA). *p* value <0.05 was considered statistically significant. Descriptive statistics were conducted to summarize the demographic characteristics of the sample. Pearson correlation coefficients were calculated to determine the associations between work climate and the intention to leave the job. Multiple linear regression (stepwise) analyses were carried out to determine the percentage variance in the dependent variable (intention to leave) predicted by the independent variables (work climate, type of employment, marital status, and overtime).

Ethical considerations

This study was approved by the ethics committee of Qom University of Medical Sciences (IR.MUQ.REC.1394.138). Participation in the study was voluntary, and all participants expressed informed consent prior to the study. The questionnaire completion was anonymous, and the data were kept private. All necessary permissions were obtained from QUMS and hospitals administrators. Ethics committee approval has been obtained on 20 Sep 2016.

Results

In total, 207 nurses participated in the study. The majority of them were female (77.30%); the mean (SD) age was 32.20 (7.07), in a range of 22–52 years. The mean (SD) duration of working was 8.60 (7.45) years; and 91.8% worked in rotational shifts. More demographic data are shown in Table 1. The mean (SD) of the intention to leave the job was 8.34 (2.37). The high level of it was expressed by 23.70% of nurses, and also 25.10% of participants had moderate intention. The rest of them (51.20%) had the low intention.

A standard multiple regression was applied between the intention to leave as the dependent variable and the work climate and demographic variable. Independent variables were entered into the regression model stepwise; the results are shown in Tables 2 and 3. Altogether, 10% of the intention to leave among nurses was explained by work

climate, type of employment, marital status, and overtime working [Table 2].

The largest beta value in this case was − 0.22, which is for work climate, followed by the type of employment (−0.17). This means that the work climate variable makes the strongest contribution to explaining the intention to leave, when the variance explained by all the other variables in the model was controlled. Other significant variables were types of employment, marital status, and overtime working. Its beta value was lower than the work climate value, indicating that it made less of a contribution [Table 3].

The correlation of work climate characteristic and the intention to leave a job is shown in Table 4. Expect for "recognition," "appreciation," "encourage development," and "learning and growing," the rest of work climate characteristics showed statistically significant negative correlations with the intention to leave their job.

Discussion

According to the results of this study, almost the half of the nurses who participated in the research intended to leave nursing, highly and moderately; there was a significant relation between work climate and the intention to leave their job. So, positive work climate was associated with the intention to retain in nursing. This problem is seen among most of health care staff, but this is very important among nurses due to their essential role in health care providing and serious shortage of staff recruitment. On the other hand, recruiting and training of new staff can waste a significant portion of a healthcare system budget.[26] In two different Iranian studies, 48.7% and 53.2% of nurses intended to stay in nursing profession, which is almost consistent with our results.[15,27] According to a study in Korean hospital, 31% of nurses intended to leave their job; also, there was a reverse and meaningful relation between positive working climate and the intention to leave the job. Among the

Table 2: Stepwise multiple regression results with intent to leave as outcome variable

Model	*R*	*R²*	Adjusted *R²*	Std. error of the estimate	*F*	*p*
1	0.21 (1)	0.04	0.04	5.19	8.79	0.003
2	0.25 (2)	0.06	0.05	5.15	6.73	0.001
3	0.29 (3)	0.08	0.07	5.10	6.05	0.001
4	0.33 (4)	0.10	0.09	5.06	5.65	<0.001

1. Predictors: (Constant), work climate; 2. Predictors: (Constant), work climate, type of employment; 3. Predictors: (Constant), work climate, type of employment, marital status; 4. Predictors: (Constant), work climate, type of employment, marital status, overtime

Table 3: Stepwise multiple regression results with intent to leave as outcome variable

Model	Variables	B	SE	b	*t*	*p*
1	Constant	11.64	1.20	-	9.64	<0.001
	Work climate	−0.07	0.02	−0.21	−2.96	0.003
2	Constant	13.17	1.39	-	9.43	<0.001
	Work climate	−0.07	0.02	−0.21	−3.01	0.003
	Type of employment	−0.63	0.30	−0.15	−2.12	0.03
3	Constant	16.61	2.13	-	7.76	<0.001
	Work climate	−0.71	0.02	−0.21	−3.07	0.002
	Type of employment	−0.75	0.30	−0.17	−2.50	0.01
	Marital status	−1.78	0.84	−0.15	−2.11	0.03
4	Constant	18.98	2.41	-	7.84	<0.001
	Work climate	−0.07	0.02	−0.22	−3.21	0.002
	Type of employment	−0.72	0.30	−0.17	−2.41	0.01
	Marital status	−1.86	0.83	−0.15	−2.22	0.02
	Overtime	−1.74	0.85	−0.14	−2.03	0.04

Table 4: Mean, standard deviation (SD), and correlations among work climate variables and Intent to leave

Variable	Mean (SD)	1	2	3	4	5	6	7	8	9	10	11	12	13
1.Expectations	5.55 (0.56)	1.00												
2. Instruments and tools	4.14 (0.51)	0.41**	1.00											
3. Using best capabilities	4.80 (0.99)	0.32**	0.46**	1.00										
4. Recognition	2.74 (1.14)	0.31**	0.28**	0.15*	1.00									
5. Appreciation	3.45 (0.52)	0.26**	0.29**	0.30**	0.64**	1.00								
6. Encourage development	3.61 (0.17)	0.18**	0.38**	0.25**	0.42**	0.75**	1.00							
7. Opinion	3.76 (0.84)	0.26**	0.32**	0.26**	0.46**	0.57**	0.65**	1.00						
8. Mission statement	3.55 (1.01)	0.17*	0.29**	0.23**	0.45**	0.48**	0.54**	0.51**	1.00					
9. Quality work	4.18 (1.12)	0.15*	0.35**	0.16*	0.26**	0.32**	0.34**	0.48**	0.52**	1.00				
10. Best friend	5.15 (0.44)	0.27**	0.19**	0.25**	0.40**	0.20**	0.15*	0.19**	0.33**	0.35**	1.00			
11. Progress	4.05 (0.55)	0.23**	0.25**	0.30**	0.22**	0.39**	0.39**	0.32**	0.32**	0.28**	0.38**	1.00		
12. Learning and growing	3.81 (0.68)	0.24**	0.31**	0.30**	0.34**	0.45**	0.44**	0.39**	0.46**	0.38**	0.0.33**	0.55**	1.00	
13. Intent to leave	8.34 (2.17)	−0.15*	−0.17*	−0.18*	−0.06	−0.11	−0.13	−0.23**	−0.17*	−0.17*	−0.18**	0.11	−0.23**	1.00

*Correlation is significant at the 0.05 level (2-tailed). **Correlation is significant at the 0.01 level (2-tailed)

nurses of that study, the presence of friendly atmosphere and standards subordination were two important subscales of work climate that were associated with the intention to leave.[28] A study by Stone *et al*. among ICU nurses showed that work climate played an important role in determination of intention to leave; it has been also shown that increasing the salaries, regardless of work climate, could not reduce their problem.[29] In the Stone *et al*. study, 50 percent of nurses also said they intended to leave their job the next year.[29] A new study conducted among Singaporean migrant nurses showed that despite the high level of job satisfaction among them, the supportive work climate was predictor of retaining in nursing profession.[30] Based on social exchange and leader–member theories, healthy interactions during the use of shared resources and information will provide enough support for individuals, and finally, reducing the work stress will increase the amount of intention to retain in a job. Similarly, a study among various healthcare professionals showed that the lack of support from hospital managers and the lack of communication between managers and staffs are the main reasons of intention to leave the job.[31] On the other hand, constructive relationship between nurses and managers will create group cohesion and positive social climate; it can also support the staff by improving the teamwork and bring many benefits to the system.[32,33] Creating and maintaining supportive relationships, participating in policy making and executive decisions making can be effective in improving the work climate and encouraging the nurses to stay at work.[34] Several other studies also confirm our findings.[35-37] Hoseini-Esfidarjani *et al*. found no relationship between anticipated turnover and healthy work environment.[38] This study also had few limitations. First, the subjects were selected from one of the provinces of Iran. In order to increase the generalizability of the findings, a larger sample should be selected to represent the Iranian nursing community. Second, the actual leaving of nursing was not studied, hence further studies are recommended. Finally, except for the demographic variables, only one main variable (work climate) was studied. So, investigating other related variables can be effective in better understanding the phenomenon of intention to leave nursing.

Conclusion

Based on the study findings, the rate of intention to leave among nurses is high. Given the recent significant need to nursing staff in Iran, it is very important to pay attention to this issue. Also, the association between work climate and the intention to leave nursing revealed that paying attention to improving the work climate in different wards of hospital along with trying to increase other aspects of work life quality can be effective in encouraging nurses to retain in nursing profession; also, it can prevent the shortage of staff and affect the quality of health care.

Conflict of interest

Nothing to declare.

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