

Original Article

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Hospital Nurses' Job Security and Turnover Intention and Factors Contributing to Their Turnover Intention: A Cross-Sectional Study

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ABSTRACT

Background: Job security is a critical factor behind quality care delivery. However, it is still unclear whether job security is related to turnover intention among Iranian nurses. **Objectives:** This study aimed to determine job security and turnover intention and also factors behind turnover intention among hospital nurses who worked in Tehran, Iran. **Methods:** This cross-sectional study was conducted from April to November 2015 in three public and three private tertiary hospitals in Tehran, Iran. A quota sample of hospital nurses was recruited and a researcher-made questionnaire was used for data collection. The data were analyzed through the Chi-square and the independent-sample *t*-tests, the one-way analysis of variance, Pearson correlation analysis, and multivariate logistic regression analysis. **Results:** The mean score of job security was 3.10 ± 0.38 (from a possible range of 1–5). Around 22.6% of nurses reported low job security. Job security among nurses in private hospitals was significantly greater than those in public hospitals ($P = 0.001$). Moreover, 32.7% of nurses reported that they will leave their profession if they find another job opportunity. Factors behind nurses' turnover intention were work experience (odds ratio [OR] = 1.30; confidence interval [CI]: 1.117–2.742), organizational justice (OR = 0.516; CI: 0.522–0.785), job prospect and stability (OR = 0.533; CI: 0.299–0.948), relationships with managers and colleagues (OR = 0.401; CI: 0.409–0.927), and work environment (OR = 0.414; CI: 0.227–0.856). **Conclusions:** Hospital managers need to develop and adopt effective policies to promote nurses' job security and reduce their turnover intention through improving their job satisfaction and working conditions, providing fair compensations, enhancing supportive nursing management, promoting job prospect and stability, and facilitating competence-based career advancement.

KEYWORDS: Employee turnover, Hospitals, Iran, Job security, Nurse

INTRODUCTION

Nursing shortage has faced hospitals in different countries around the world, including Iran, with serious challenges in providing quality and safe services to their clients.^[1,2] The major reasons behind nursing shortage are poor leadership, lack of managerial support for nurses, nurses' uncertainty over future, low job satisfaction, inadequate job opportunities, turnover intention, and job insecurity.^[1,3-6]

Turnover is nurses' voluntary withdrawal from their profession. Turnover behavior is determined by turnover intention.^[7] Nurses have the highest turnover

rate compared with other health-care providers.^[8,9] The results of a study in Iran showed that more than 35% of nurses intended to leave their profession.^[10]

High turnover has adverse effects on organizational efficiency, effectiveness, and productivity.^[7,11] Nurses' turnover can also negatively affect patients as well

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as those nurses who remain in the profession.^[12-14] It also exacerbates nursing shortage, increases nurses' workload, requires nurses to work longer shifts, and hence, dissatisfies them with their job.^[8] Moreover, it can negatively affect nurses' morale, productivity, and ability to fulfill patients' needs and provide quality care and impose high financial burden on health-care organizations. Factors behind nurses' turnover include weak organizational commitment, inappropriate organizational culture, low quality of working life and job satisfaction, high occupational stress, long shifts, and job burnout.^[11,13,15,16]

Job security is another factor behind nursing shortage and nurses' turnover. It is defined as the assurance that an individual has about having his/her current job in future. It also refers to the expectations about career advancement opportunities over time. An individual seems to have job security if he/she feels that he/she has an appropriate permanent job and is qualified enough to perform it satisfactorily.^[4,17] Job security is determined by different factors, chiefly satisfaction with different aspects of job including payment and career advancement opportunities.^[8] Lack of job security is a common and costly problem in health-care settings.^[18] Job insecurity is associated with lower job satisfaction,^[3] poorer self-reported health and well-being, weaker organizational commitment, higher turnover intention,^[4] lower productivity, and higher costs for societies.^[17] Moreover, it may negatively affect employees' performance so that employees with higher job insecurity have more absences from work.^[3]

There is limited information regarding turnover intention among Iranian hospital nurses, and therefore, it is still unclear whether Iranian nurses' job security is related with their turnover intention. Moreover, factors behind Iranian nurses' turnover intention still need further investigations. This study was done to narrow these gaps.

Objectives

This study aimed to determine job security and turnover intention and also factors behind turnover intention among hospital nurses who worked in Tehran, Iran.

METHODS

Design and participants

This cross-sectional study was conducted from April to November 2015. From all general hospitals in Tehran, Iran, three public and three private tertiary hospitals were purposefully selected based on the possibility to communicate with their authorities. These six hospitals were among the leading health-care centers in Tehran, Iran. A sample of 600 hospital nurses was recruited from

these six hospitals through quota sampling. Inclusion criteria were willingness to partake in the study, a work experience of at least 1 year, and full-time employment as a hospital nurse. Nurses who incompletely filled out study instruments were excluded from the study. Sample size was calculated based on the proportion of nurses who tended to leave (50%) the job in a pilot study. Then, considering a *Z* of 1.96, a *d* of 0.04, and a *P* of 0.5, a total of 600 nurses were estimated to be needed.

Instruments and data collection

Turnover intention was assessed through the following yes/no question: "May you leave this profession if you find another job opportunity?" Job security was assessed using a researcher-made questionnaire [Appendix 1]. Initially, a 36-item questionnaire was designed through an extensive literature review.^[3,4,10,13,17] All items were scored on a five-point Likert-type scale from 1 ("Strongly disagree") to 5 ("Strongly agree"). Negatively worded items were scored reversely. The face and the content validity of the questionnaire were assessed by six experts in nursing and health-care management. After revising the questionnaire based on experts' comments, thirty items remained in the final questionnaire. Then, content validity ratio and content validity index were calculated for the questionnaire, which were 0.83 and 0.90, respectively. Construct validity of the questionnaire was also assessed through exploratory factor analysis with principal component analysis. These techniques were used to determine the factor structure of the job security questionnaire. The sample for factor analysis consisted of 200 hospital nurses. Due to significant correlations between components, direct oblimin rotation was employed. The number of factors was determined through eigenvalues >1 and scree plot. Moreover, Kaiser-Meyer-Olkin (KMO) test of sampling adequacy and Bartlett's test of sphericity were conducted to determine the appropriateness of factor analysis. KMO value was 0.809, indicating that the sample was adequate. Bartlett's test was also statistically significant ($\chi^2 = 2179.94$, *df* = 435, *P* < 0.001). Principal component factor analysis with oblimin rotation revealed an eight-factor structure which accounted for 61.001% of the total variance of job security. The absolute factor loadings of the thirty items of the questionnaire ranged from 0.41 to 0.87. The eight factors were as follows: comfort in job (4 items), organizational justice (6 items), job future and stability (4 items), organizational climate (4 items), wages and salaries (2 items), relations with managers and colleagues (4 items), rules and regulations (4 items), and work environment (2 items).

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The reliability of the questionnaire was evaluated through the internal consistency method, which resulted in an overall Cronbach's alpha of 0.78.

For data collection, we referred to the wards of the target hospitals in the morning and afternoon shifts and asked eligible nurses to complete study instruments either in the workplace or at home. They were required to return completed instruments at most 7 days later.

Ethical considerations

This study was approved by the Institutional Review Board and the Ethics Committee of Iran University of Medical Sciences, Tehran, Iran (grant number: 29503; ethical approval code: IR.IUMS.REC.29503.193.03.95.2015). The objective of the study was explained to participants and they were assured that their information would be used just for the purpose of the present study. Study data were handled confidentially, and participation in the study was voluntary. All participants provided written consent for participation.

Data analysis

Participants' characteristics, job security, and turnover intention were described through the measures of descriptive statistics such as frequency, mean, and standard deviation. To retain the 1–5 metric of responses to job security questionnaire items, the total scores of the questionnaire and its dimensions were transformed to 1–5 scale through dividing the scores by the number of the corresponding items. Then, the total score of the questionnaire was categorized and interpreted as follows: scores 0–2: very low job security; scores 2.1–2.75: low job security; scores 2.76–3.50: moderate job security; scores 3.51–4.25: high job security; and scores 4.26–5: very high job security.

Normality assessment was done through histogram and Q-Q plots, which revealed that all study variables had normal distribution. Then, the Chi-square test was performed to determine the relationships of turnover intention with participants' characteristics. The independent-sample *t*-test and the one-way analysis of variance were conducted to compare job security among participants based on their characteristics. The relationships of the total score of job security with the scores of its eight dimensions were examined through the Pearson correlation analysis. Thereafter, we used logistic regression analysis and calculated odds ratio (OR) to determine factors contributing to turnover intention through two models which were unadjusted and adjusted for nurses' sociodemographic characteristics. All statistical analyses were performed at a significance level of <0.05 using the SPSS software v. 13.0 (SPSS Inc., Chicago, IL, USA).

RESULTS

Participants' characteristics

A total of 558 nurses completely filled out their questionnaires (response rate = 93%). Almost 73.4% of the participants were female, 67.3% were married, and 82.3% had bachelor's degree in nursing. The mean of participants' age was 35.00 ± 9.00 . Table 1 summarizes participants' sociodemographic characteristics.

The overall mean score of job security was 3.10 ± 0.38 , with a range of 2.17–4.33 [Table 2]. Around 22.6% of participants reported low job security. The mean score of job security among participants with contract employment was significantly higher than those with permanent employment ($P = 0.03$). Job security had no significant relationships with age, gender, marital status, educational status, work experience, and monthly income [Table 1].

Among the eight dimensions of job security, the lowest and the highest mean scores were related to the job prospect and stability and the comfort in job dimensions, respectively. Of course, the lowest-scored dimension in public hospitals was the work environment dimension. The independent-sample *t*-test revealed that the overall mean score of job security as well as the mean scores of the organizational justice, rules and regulations, and organizational climate dimensions in private hospitals were significantly greater than public hospitals [$P = 0.001$; Table 2]. Correlation analysis also revealed that overall job security had significant correlations with all its dimensions. Its strongest correlation was with the rule and regulation dimension ($r = 0.799$), while its weakest correlation was with the job prospect and stability dimension ($r = 0.173$) [Table 3].

Around 32.7% of participants reported that they will leave their profession if they find another job opportunity. Nurses in private hospitals had significantly lower turnover intention than their counterparts in public hospitals [26.6% vs. 38%; $P = 0.042$; Table 2]. Turnover intention was also significantly higher among nurses with permanent employment than those with contract employment ($P = 0.03$). Similarly, turnover intention among nurses with a work experience of more than 10 years was significantly higher than those with a work experience of <10 years ($P = 0.01$). However, turnover intention had no significant correlations with age, gender, monthly income, educational status, and marital status [Table 1].

Factors behind nurses' turnover intention

Table 4 shows the results of multivariate logistic regression analysis for the factors contributing to turnover intention.

Table 1: Nurses' job security mean score and turnover intention rate based on their sociodemographic characteristics

Variables ^a	n (%)	Job security	P	Turnover intention		P
				Yes	No	
Gender						
Male	148 (26.6)	3.11 ± 0.35	0.88 ^b	54 (36.5)	94 (63.5)	0.45 ^d
Female	410 (73.4)	3.10 ± 0.35		128 (31.3)	282 (68.7)	
Marital status						
Single	182 (32.7)	3.14 ± 0.37	0.24 ^b	52 (28.6)	130 (71.4)	0.41 ^d
Married	376 (67.3)	3.08 ± 0.34		131 (34.8)	245 (65.2)	
Education level						
Bachelor's degree	459 (82.3)	3.10 ± 0.33	0.73 ^b	149 (32.5)	310 (67.5)	0.82 ^d
Master's degree and higher	99 (17.7)	3.10 ± 0.42		34 (34.3)	65 (65.7)	
Age (years)						
20-30	138 (24.7)	3.07 ± 0.36	0.77 ^c	36 (26.1)	102 (73.9)	0.43 ^d
31-40	299 (53.5)	3.10 ± 0.35		101 (33.8)	198 (66.2)	
>41	121 (21.8)	3.12 ± 0.35		45 (37.2)	76 (62.8)	
Type of employment						
Permanent	225 (40.3)	3.01 ± 0.33	0.03 ^b	90 (40)	135 (60)	0.03 ^d
Under contract	333 (59.7)	3.16 ± 0.35		92 (27.7)	241 (72.3)	
Work experience (years)						
<10	286 (51.2)	3.09 ± 0.36	0.53 ^b	90 (31.5)	196 (68.5)	0.01 ^d
>10	272 (48.8)	3.11 ± 0.34		92 (33.8)	180 (66.2)	
Monthly income						
<\$750	281 (50.4)	3.07 ± 0.36	0.21 ^b	95 (33.8)	186 (66.2)	0.21 ^d
>\$750	277 (49.6)	3.13 ± 0.34		88 (31.8)	189 (68.2)	
Work setting						
Private hospital	279 (50.0)	3.00 ± 0.32	<0.001 ^b	74 (26.6)	205 (73.4)	0.003 ^d
Public hospital	279 (50.0)	3.19 ± 0.37		108 (38.7)	171 (61.3)	

^aAll values are presented as mean ± SD or n (%), ^bThe independent-sample *t*-test, ^cThe one-way analysis of variance, ^dThe Chi-square test. SD: Standard deviation

Table 2: The mean scores of nurses' job security in overall and in public and private hospitals

Job security dimensions ^a	Overall	Public hospitals (n=279)	Private hospitals (n=279)	P
Comfort in job	3.71 ± 0.60	3.67 ± 0.59	3.75 ± 0.60	0.301 ^b
Organizational justice	2.88 ± 0.61	2.74 ± 0.59	3.02 ± 0.61	<0.001 ^b
Job prospect and stability	2.81 ± 0.55	3.02 ± 0.49	2.60 ± 0.53	0.951 ^b
Organizational climate	3.00 ± 0.55	2.79 ± 0.48	3.21 ± 0.54	<0.001 ^b
Wages and salaries	3.06 ± 0.66	3.12 ± 0.66	2.99 ± 0.65	0.124 ^b
Relationships with managers and colleagues	3.45 ± 0.58	3.40 ± 0.54	3.49 ± 0.61	0.238 ^b
Rules and regulations	3.06 ± 0.67	2.82 ± 0.59	3.29 ± 0.67	<0.001 ^b
Work environment	2.99 ± 0.80	2.64 ± 0.72	3.34 ± 0.82	0.967 ^b
Overall job security	3.10 ± 0.38	3.00 ± 0.32	3.19 ± 0.37	<0.001 ^b
Turnover intention				
Yes	182 (32.7)	108 (38.7)	74 (26.6)	0.042 ^c
No	376 (67.3)	171 (61.3)	205 (73.4)	

^aAll values are presented as mean ± SD or n (%), ^bThe independent-sample *t*-test, ^cThe Chi-square test. SD: Standard deviation

Initially, the dimensions of job security were entered into the regression model. Results illustrated that the organizational justice, job prospect and stability, and work environment dimensions had significant effects on turnover intention. Then, in addition to these eight dimensions, sociodemographic characteristics were also entered into the regression model. Results showed that work experience, organizational justice, job prospect and stability,

relationships with managers and colleagues, and work environment had significant effects on turnover intention. Accordingly, turnover intention among nurses with a work experience of more than 10 years was 30% more than those with a work experience of <10 years (OR = 1.30; 95% confidence interval [CI]: 1.117–2.742). The OR for organizational justice was 0.516 (95% CI: 0.522–0.785), meaning that higher organizational justice was associated

Table 3: Intercorrelations among job security and its dimensions

Dimensions of job security	1	2	3	4	5	6	7	8	9
1 Overall job security	-	-	-	-	-	-	-	-	-
2 Comfort in job	0.521 ^b	-	-	-	-	-	-	-	-
3 Organizational justice	0.751 ^b	0.015 ^a	-	-	-	-	-	-	-
4 Job prospect and stability	0.173 ^b	0.015	0.033	-	-	-	-	-	-
5 Organizational climate	0.673 ^b	0.148 ^a	0.419 ^b	0.111	-	-	-	-	-
6 Wages and salaries	0.281 ^b	0.122	0.120 ^a	0.056	0.059	-	-	-	-
7 Relationships with managers and colleagues	0.589 ^b	0.269 ^b	0.336 ^b	0.009	0.274 ^b	0.091	-	-	-
8 Rules and regulations	0.799 ^b	0.362 ^b	0.565 ^b	0.166 ^b	0.594 ^b	0.155 ^a	0.371 ^b	-	-
9 Work environment	0.384 ^b	0.135 ^a	0.116	0.253 ^b	0.388 ^b	0.028	0.097	0.349 ^b	-

^aCorrelation is significant at <0.05, ^bCorrelation is significant at <0.01

Table 4: Multivariate logistic regression analysis for determining factors behind nurses' turnover intention

Variables	OR (95% CI)	
	Unadjusted	Fully adjusted
Dimensions of job security		
Comfort in job	1.145 (0.688-1.906)	1.125 (0.655-1.931)
Organizational justice	0.645 (0.421-0.921) ^b	0.516 (0.522-0.785) ^b
Job prospect and stability	0.587 (0.348-0.992) ^a	0.533 (0.299-0.948) ^a
Organizational climate	1.267 (0.645-2.490)	1.503 (0.740-3.051)
Wages and salaries	0.838 (0.542-1.297)	0.804 (0.506-1.278)
Relationships with managers and colleagues	0.973 (0.863-2.513)	0.401 (0.409-0.927) ^a
Rules and regulations	0.804 (0.427-1.514)	0.749 (0.390-1.438)
Work environment	0.621 (0.294-0.954) ^a	0.414 (0.227-0.856) ^a
Gender		
Male		1
Female		0.671 (0.347-1.297)
Educational status		
Bachelor's degree		1
Master's degree and higher		1.427 (0.648-3.145)
Marital status		
Single		1
Married		1.235 (0.578-2.637)
Type of employment		
Permanent		1
Under contract		0.979 (0.355-2.706)
Work experience (years)		
<10		1
>10		1.300 (1.117-2.742) ^a
Monthly income		
<\$750		1
>\$750		0.850 (0.447-1.616)
Type of hospital		
Public		1
Private		1.400 (0.483-4.057)

^aP<0.05, ^bP<0.01. OR: Odds ratio, CI: Confidence interval

with lower turnover intention. Nurses with better perceived job prospect and stability were 47% less likely to leave their profession (OR = 0.533; 95% CI: 0.299–0.948). The OR values for the relationships with managers and colleagues and the work environment dimensions were 0.401 (95% CI: 0.409–0.927) and 0.414 (95% CI: 0.227–0.856), respectively. These findings denote that

better relationships with managers and colleagues and better work environment were associated with lower turnover intention.

DISCUSSION

The results of this study showed that hospital nurses had moderate job security and around one-third of them

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intended to leave their profession. The main reasons behind their turnover intention were organizational injustice, concerns about job prospect and stability, lack of career advancement opportunities, and inappropriate work environment. These findings are in line with the findings of earlier studies in Iran which reported a moderate level satisfaction,^[6] negative perceptions about the ethical climate of the work setting,^[19] and moderate level of job security among hospital nurses mainly due to factors such as inadequate income, high occupational stress, limited career advancement opportunities, inadequate participation and involvement, poor communication, and lack of work motivation.^[13]

Findings also revealed that job insecurity among nurses in public hospitals was significantly deeper than those in private hospitals. Many public hospitals in Iran are overcrowded teaching hospitals with low number of nurses, heavy workload, inappropriate work environment, ineffective communications, insufficient payments, poor management, and low organizational support for nurses.^[1,20] Conversely, in private hospitals, managers pay more attention to nurses' viewpoints and demands in order to encourage them to provide quality services.^[21] Our findings were in line with the findings of an earlier study^[22] and inconsistent with the findings of two other studies which reported better job security in public hospitals.^[10,13] This inconsistency might be attributed to the differences in study participants, settings, and instruments.

The major cause of job insecurity in our study in public hospitals was work environment. Many public hospitals in Iran usually do not have good physical conditions and proper facilities for nursing activities.^[23] On the other hand, the major cause of job insecurity in private hospitals was related to job prospect and stability. This may be due to the fact that the majority of nurses in private hospitals are employed under contract.

Another finding of the study was that 32.7% of nurses, particularly those in public hospitals, intended to leave their profession. This is similar to the findings of previous studies in Iran and some other countries.^[13,23-25] It is noteworthy that most previous studies into turnover assessed turnover intention if there were other job opportunities. Such job marketing might have affected nurses' turnover intention.^[3]

The results of regression analysis in the present study illustrated that the significant predictors of nurses' turnover intention were work experience, organizational justice, job prospect and stability, relationships with managers and colleagues, and work environment. Several studies confirmed the impact of work experience

on turnover intention.^[13,26,27] Work experience can affect employees' perception of job security and organizational justice and provide them with better opportunities for employment and skill development. Moreover, it affects organizational culture and thereby can contribute to turnover intention.^[28]

Another factor behind turnover intention in our study was organizational justice. Most previous studies also reported the same finding.^[2,9,29] Perceived organizational justice is among the most pivotal predictors of job prospect and stability. Organizational injustice brings employees into cognitive conflicts, causes them behavioral dysfunction, and thereby, accelerates their turnover intention.^[3]

Another factor behind turnover intention in the present study was job prospect and stability. Previous studies also reported job prospect, job stability, career paths, and career mapping as factors affecting turnover intention.^[4,13] Ensuring job prospect and stability can alleviate employees' concerns over work and financial issues, bring tranquility, and improve quality of working life.^[3]

We also found relationships with managers and colleagues as another predictor of nurses' turnover intention. Such relationships affect not only employees' psychological well-being but also the organizational climate and employees' behaviors and turnover intention.^[27,30] The other significant predictor of turnover intention in the present study was work environment. Two earlier studies also reported the same finding.^[26,28] Work environment directly affects job satisfaction,^[31] and high levels of job satisfaction can reduce nurses' turnover intention.^[32] Therefore, work environment can change turnover intention through affecting job satisfaction.

The findings of this study should be considered along with some limitations. One limitation was that causal conclusions cannot be drawn due to the cross-sectional design of the study. Another limitation was participant recruitment through nonrandom quota sampling. Finally, participants were selected only from six hospitals in Tehran, Iran. Therefore, findings may not be generalizable to all nurses in all hospitals in Iran. Large multicenter studies are recommended. Moreover, qualitative studies are needed to explore nurses' lived experiences of factors affecting their job security and turnover intention.

CONCLUSION

This study indicates moderate job security among hospital nurses. Job security among nurses in public

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hospitals is lower than their counterparts in private hospitals. About one-third of nurses intend to leave their profession if they can find another job opportunity. This study adds to our knowledge about hospital nurses' job security, turnover intention, and the factors behind their turnover intention. Hospital managers need to develop and adopt effective policies to promote nurses' job security and reduce their turnover intention through improving their job satisfaction and working conditions, providing fair compensations, enhancing supportive nursing management, promoting job prospect and stability, and facilitating competence-based career advancement. Promoting nurses' job security will ultimately lead to improved job satisfaction and productivity and reduced turnover intention.

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Conflicts of interest

There are no conflicts of interest.

REFERENCES

1. Farsi Z, Dehghan-Nayeri N, Negarandeh R, Broomand S. Nursing profession in Iran: An overview of opportunities and challenges. *Jpn J Nurs Sci* 2010;7:9-18.
2. Tourani S, Khosravizadeh O, Omrani A, Sokhanvar M, Kakemam E, Najafi B, *et al.* The relationship between organizational justice and turnover intention of hospital nurses in Iran. *Mater Sociomed* 2016;28:205-9.
3. Emberland J, Rundmo T. Implications of job insecurity perceptions and job insecurity responses for psychological well-being, turnover intentions and reported risk behavior. *Saf Sci* 2010;48:452-9.
4. Laine M, van der Heijden BI, Wickström G, Hasselhorn HM, Tackenberg P. Job insecurity and intent to leave the nursing profession in Europe. *Int J Hum Resour Man* 2009;20:420-38.
5. Atefi N, Lim Abdullah K, Wong LP, Mazlom R. Factors influencing job satisfaction among registered nurses: A questionnaire survey in Mashhad, Iran. *J Nurs Manag* 2015;23:448-58.
6. Gadirezadeh Z, Adib-Hajbaghery M, Arabi Matin Abadi MJ. Job stress, job satisfaction, and related factors in a sample of Iranian nurses. *Nurs Midwifery Stud* 2017;6:125-31.
7. Chiang YM, Chang Y. Stress, depression, and intention to leave among nurses in different medical units: Implications for healthcare management/nursing practice. *Health Policy* 2012;108:149-57.
8. Hayes LJ, O'Brien-Pallas L, Duffield C, Shamian J, Buchan J, Hughes F, *et al.* Nurse turnover: A literature review – An update. *Int J Nurs Stud* 2012;49:887-905.
9. Sokhanvar M, Hasanpoor E, Hajhashemi S, Kakemam E. The relationship between organizational justice and turnover intention: A survey on hospital nurses. *J Patient Saf Qual Improv* 2016;4:358-62.
10. Mosadeghrad AM. Occupational stress and turnover intention: Implications for nursing management. *Int J Health Policy Manag* 2013;1:169-76.
11. De Gieter S, Hofmans J, Pepermans R. Revisiting the impact of job satisfaction and organizational commitment on nurse turnover intention: An individual differences analysis. *Int J Nurs Stud* 2011;48:1562-9.
12. Alharbi J, Wilson R, Woods C, Usher K. The factors influencing burnout and job satisfaction among critical care nurses: A study of Saudi critical care nurses. *J Nurs Manag* 2016;24:708-17.
13. Mosadeghrad AM, Ferlie E, Rosenberg D. A study of relationship between job stress, quality of working life and turnover intention among hospital employees. *Health Serv Manage Res* 2011;24:170-81.
14. Roche MA, Duffield CM, Homer C, Buchan J, Dimitrelis S. The rate and cost of nurse turnover in Australia. *Collegian* 2015;22:353-8.
15. Brewer CS, Kovner CT, Greene W, Tukov-Shuser M, Djukic M. Predictors of actual turnover in a national sample of newly licensed registered nurses employed in hospitals. *J Adv Nurs* 2012;68:521-38.
16. Leiter MP, Maslach C. Nurse turnover: The mediating role of burnout. *J Nurs Manag* 2009;17:331-9.
17. László KD, Pikhart H, Kopp MS, Bobak M, Pajak A, Malyutina S, *et al.* Job insecurity and health: A study of 16 European countries. *Soc Sci Med* 2010;70:867-74.
18. Zhang XC, Huang DS, Guan P; SUBLIN Study Team. Job burnout among critical care nurses from 14 adult Intensive Care Units in Northeastern China: A cross-sectional survey. *BMJ Open* 2014;4:e004813.
19. Etebari-Asl Z, Abdollahzadeh F, Lotfi M. The relationship of ethical climate and nurses' job satisfaction in the operating room: A cross-sectional study. *Nurs Midwifery Stud* 2017;6:137-9.
20. Zarea K, Negarandeh R, Dehghan-Nayeri N, Rezaei-Adaryani M. Nursing staff shortages and job satisfaction in Iran: Issues and challenges. *Nurs Health Sci* 2009;11:326-31.
21. Tyson PD, Pongruengphant R. Five-year follow-up study of stress among nurses in public and private hospitals in Thailand. *Int J Nurs Stud* 2004;41:247-54.
22. Ogunjimi L, Ajibola C, Akah L. Comparative analysis of stressors on job performance of public and private health workers in Calabar, Nigeria. *Int NGO J* 2009;4:97-103.
23. Gharibi V, Mokarami H, Taban A, Yazdani Aval M, Samimi K, Salesi M, *et al.* Effects of work-related stress on work ability index among Iranian workers. *Saf Health Work* 2016;7:43-8.
24. Günelan M, Ceylan A. The mediating effect of organizational support between job insecurity and turnover intention in private hospitals. *Int J Bus Manag* 2015;10:74.
25. Massoudi R, Aetamadifar S, Afzali SM, Khayri F, Hassanpour Dehkordi A. The influential factors on burnout among nurses working in private hospitals in Tehran. *Iran J Nurs Midwifery Res* 2008;3:47-58.
26. AbuAlRub R, El-Jardali F, Jamal D, Abu Al-Rub N. Exploring the relationship between work environment, job satisfaction, and intent to stay of Jordanian nurses in underserved areas. *Appl Nurs Res* 2016;31:19-23.
27. Perryer C, Jordan C, Firms I, Travaglione A. Predicting turnover intentions: The interactive effects of organizational commitment and perceived organizational support. *Manag Res Rev* 2010;33:911-23.
28. Goh YS, Lopez V. Job satisfaction, work environment and intention to leave among migrant nurses working in a publicly

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- funded tertiary hospital. *J Nurs Manag* 2016;24:893-901.
29. Ouyang Z, Sang J, Li P, Peng J. Organizational justice and job insecurity as mediators of the effect of emotional intelligence on job satisfaction: A study from China. *Pers Individ Dif* 2015;76:147-52.
30. Newman A, Thanacoody R, Hui W. The effects of perceived organizational support, perceived supervisor support and intra-organizational network resources on turnover intentions: A study of Chinese employees in multinational enterprises. *Pers* Rev 2011;41:56-72.
31. Zhang LF, You LM, Liu K, Zheng J, Fang JB, Lu MM, *et al.* The association of Chinese hospital work environment with nurse burnout, job satisfaction, and intention to leave. *Nurs Outlook* 2014;62:128-37.
32. Lambrou P, Merkouris A, Middleton N, Papastavrou E. Nurses perceptions of their professional practice environment in relation to job satisfaction: A review of quantitative studies. *Health Sci J* 2014;8:298-317.

Appendix 1: The study questionnaire

Comfort in job

- My job needs a lot of expertise and skills
- I can use my expertise and skills in the field of my work
- I feel comfortable and relaxed in my job
- I enjoy doing work activities

Organizational justice

- The complaints and criticisms of employees are treated fairly
- Appointment and promotion in the organization are based on competencies and organizational rules
- Individual and group relationships prevail over organizational rules and regulations*
- The salary and benefits that I receive are fair in comparison with my activities in the organization
- An organizational hierarchy is considered to be the same for all
- The organizational hierarchy is treated equally by everyone

Job prospect and stability

- I am not worried about my future career in the organization
- I'm worried about the decline in my job position in the organization*
- There are no conditions and factors for threatening my job position in the organization
- I am sure that career enhancement is possible for everyone through improving abilities and competencies

Organizational climate

- I'm afraid to express my opinions and ideas in the organization*
- There is a feeling of sympathy and kindness in the organization
- The conditions are available for participating in decision-making and receiving advice from others
- Managers appreciate powerful staff by encouraging and rewarding them

Wages and salaries

- The salary that I receive from the organization is not enough to cover the cost of my life*
- The insurance benefits and facilities of the organization are appropriate

Relationships with managers and colleagues

- I feel peace and comfort for connecting with colleagues and attending them
- The conditions are provided to communicate with the managers if needed
- My relationship with colleagues is based on mutual trust
- My relationship with managers is based on mutual trust

Rules and regulations

- The national work laws and its changes are known to me
- I am aware of the rules and regulations of the organization
- My authority and duties are explicitly determined by laws and regulations
- Decisions about my job position, promotion, degradation, conflict with others, and other conditions are made in accordance with the organizational rules

Work environment

- The environmental conditions are safe for my work
- The necessary equipment is not available for performing my tasks*

*Reverse-worded item