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# Affecting Factors on nurses outflows in Iran 2018: a systematic review



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## ABSTRACT

**Background:** Nurses are the highest professional workforce at a hospital, and they have become a critical factor in improving productivity and competitiveness of hospitals. In the healthcare industry, the attrition rate of nurses has been the highest among all employee categories.

**Aim:** The purpose of this study was to investigate the factors affecting nurses' outflow from Iran's health system.

**Methods:** We conducted a systematic search in the web of science, PubMed, OVID, SID, Magiran and google scholar in 2016. The selected period for searching articles was from 2000 to 2016.

**Results:** Tendency of Iranian nurses to leave services was correlated with justice, commitment, individual factors, organizational factors, cultural, economic and social factors. The individual factors include the type of health sector, level of income, job satisfaction, work and family

conflict. The organizational factors include organizational atmosphere, work issues, job stress, work exhaustion, working life quality, and ethical leadership.

**Conclusion:** Targeting interventions to enhance participation in hospital affairs, adequacy of staffing and resources and enabling and supporting behaviors and creating opportunities for growth and professional development could be beneficial for a stable nursing workforce. The challenge for nurse leaders is to use the evidence generated from this study and previous studies to develop professional practice environments that facilitate the cultural changes needed to build and sustain a quality nursing workforce. It seems essential that hospital managers consider these factors in their planning and decision makings

**Keywords:** Nurse; Turnover; migration

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## INTRODUCTION

A nurse practitioner (NP) is a registered nurse (RN) with additional education in health assessment, diagnosis, and management of illnesses and injuries.<sup>1</sup> Nurses are one of the essential health workforces.<sup>2,3</sup>

Nurses are the highest professional workforce at a hospital, and they have become a critical factor in improving productivity and competitiveness of hospitals.<sup>4</sup> The nursing profession is exposed to more potential problems because of its inherent nature, organizational strategies, extensive communication with other members of the health team, patients, and their families. Therefore it can cause a variety of effects leading to stress, discomfort, exhaustion, and burnout.<sup>5</sup> For Iranian nurses, stressor sources which may lead to burnout and dissatisfaction have been reported as physical environment problems. Moreover, complicated workload, conflict with patients and management of their companions' violence, dealing with health and safety risks, lack of support from managers, absenteeism of physicians in emergency situations and lack of facilities also have been reported as stressor sources.<sup>6</sup> Nurses in all countries are at high risk of burnout, low job satisfaction, and intention to leave,<sup>7,8</sup> all of which regarded as essential

nursing outcomes. These outcomes have received increasing attention because of the widespread shortage of nurses.<sup>9,10</sup> Although Nursing Turnover is a global concern, its definition and measurement vary according to different research authors.<sup>11-14</sup> The causes of turnover have been related to some of the external (supply and demand in labor market and economic situation) and internal phenomena (salary policy, types of supervision and organizational conditions).<sup>15</sup>

Nowadays, nursing shortage threatens the quality of care for consumers. Nurses continue to leave their jobs before they reach the age of retirement and one of the reasons for early retirement has been job dissatisfaction.<sup>16</sup> Thus, nurse administrators need to be concerned with factors that enhance satisfaction and retention of nurses and, consequently, reduce turnover rates.<sup>17</sup> This shortage has been due to a variety of reasons including migration to developed countries, underproduction of the health workforce, inability to pay higher salaries and benefits, failure to sustain other measures to retain health workers in some countries, illness and death and other factors that were uncontrollable.<sup>18</sup>

In the healthcare industry, the attrition rate of nurses has been the highest among all employee

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categories.<sup>19</sup> Nurses do not leave an organization without any significant reason unless due to certain circumstances that may lead to their leave from an organization.<sup>20</sup>

Healthcare organizations spend a significant amount of funds to replace nurses and they also lose intellectual capital when nurses quit.<sup>21,22</sup> Therefore, reduction in turnover should be considered as a critical subject for researchers. Regardless of strategies to retain the staff, the critical shortage of nurses not only continues but will worsen over time. Health authorities that spend much time, human and financial resources to hire nurses should be aware that it is equally vital and affordable to attract and retain their employees utilizing similar efforts.<sup>23</sup>

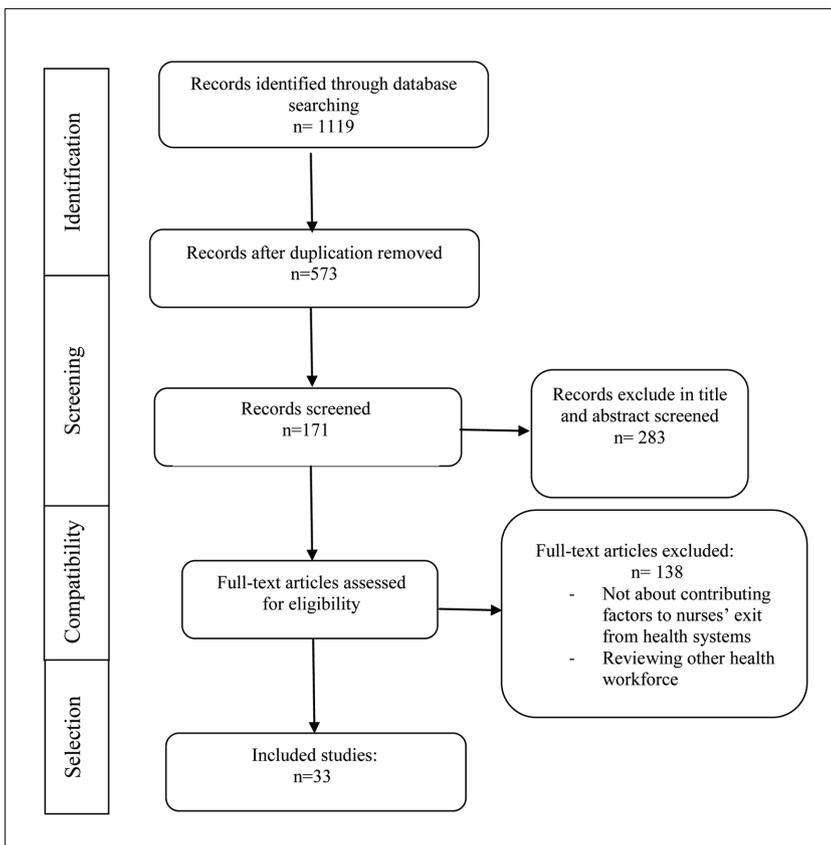
This study aimed to gain a deeper understanding of factors that affect nursing outflows and intention to

leave in Iran. Hence the acquired knowledge will be useful in the formulation of recommendations/policies for improving the work circumstances of nurses and reduction of their intention to leave healthcare.

**METHOD**

We conducted a systematic search in the web of science, PubMed, OVID, SID, Magiran and google scholar in 2016. The selected period for searching articles was from 2000 to 2016. The reason for choosing such a relatively short period was to control and minimize the effect of time on studies relating to nurses' quality of life as it could be changed by time because of factors such as health advancements, changing nurses' attitude and information level, usage of more utilities, and many other factors. Therefore, by selecting such a relatively short period, the effects of these changes were minimized. The following search syntax was used for the electronic databases: (Nurse OR Nursing OR (Personnel AND Nursing) OR "Nursing Personnel" OR "Registered Nurses" OR (Nurse AND Registered) OR "Registered Nurse" OR "Nurse Practitioner") AND (Migration OR Retirement OR Retirements OR Turnover OR Emigrant OR leave OR Immigrants OR Immigrant OR (Immigrants AND Emigrants) OR Emigrants) AND Iran) and their Persian equivalents in SID and Magiran. This search strategy was applied to each database. For a better recognition and coverage of the published articles, after searching databases, manual searching was conducted as well.

Two researchers independently screened search results for potentially eligible studies. After filtering titles and abstracts for inclusion eligibility, a full-text copy of the paper was obtained. Also, all references in available papers were screened for relevant studies. To further expand the coverage of published articles, some of leading journals in this field were hand searched after searching the databases. After excluding barely related materials to the objectives of the study, the primary materials were selected. References to the selected materials were also checked to increase assurance about finding the most related articles. During the process of screening and selecting the materials, disagreement between the researchers was resolved by regular discussion meetings. Table 1 shows the criteria for inclusion and exclusion. Characteristics of the data gained from the studies were independently extracted Among 1119 extracted articles, those that had weak relevancy and contained excluding criteria were eliminated. Finally, 33 related articles were included in the study, and later they were evaluated or studied (Figure 1).



**Figure 1** Study selection flow diagram/chart

**Table 1** Inclusion and exclusion criteria

Inclusion	Exclusion
Studies published in English or Persian	Clinical studies relating to nurses duties and job
All articles published from 2000 to 2016	Letter to the editors
Studies concerning effecting factors on outflows of nurses	Articles presented in seminars and conferences

## RESULTS

Overall, 1119 articles were found in from the databases and journals. After studying titles, abstracts, and full texts of articles, and excluding duplicated and irrelevant cases, 33 articles were relevant to the objectives of the study for further evaluated. Among these articles, ten were published in English language journals. Most studies (10 articles) were conducted in 2013. To study nurses' intention to leave, we were used semi-structured interviews (6 articles) and questionnaires (26 articles). Table 2 shows the characteristics of the reviewed articles.

Among the most frequent barriers extracted from the articles, lack of suitable facilities was the most crucial barrier while. Table 2 summarizes thirty-three studies which were finally included in our review. The extracted data from the mentioned articles were the authors, years, location, sample

size, adequate factors on nurse's outflows and rate of intention to leave.

Identification of factors affecting the nursing outflows of Iran's health care system is essential as it will enable decision makers and hospital managers to solve and articulate the challenges of their outflow. Findings from the present study showed that tendency of Iranian nurses to leave services was correlated with justice, commitment, individual factors (type of health sector, level of income, job satisfaction, work and family conflict). Besides, the organizational factors (organizational atmosphere, work issues, job stress, work exhaustion, working life quality, and ethical leadership) and cultural, economic, and social factors also become the factor of Iranian nurse to leave the services. On the other hand, nurses working in hospitals implementing organizational excellence were not willing to leave service.

**Table 2** Summarize of selection studies of research

Authors	Years/ location	Sample size	Effective Factors on nurses outflows	Intention to leave service
Leila Valizadeh, Vahid Zamanzadeh, Hosein Habibzadeh, Leyla Alilu, Ali Shakibi <sup>24</sup>	2016/ Tabriz	13 nurses	Confronting the intention to quit service: self-empowerment, 2. Self-control And 3. encouraging progress and promotion	
Sogand Tourani, Omid Khosravizadeh, Amir Omrani, Mobin Sokhanvar, Edris Kakemam and Behnam Najaf <sup>25</sup>	2016/ Tehran	135	The existence of a significant relationship between organizational justice and interactive justice and procedural justice with the intention of leaving the service.	
Mansoureh Ashghaly Farahani, Fatemeh Oskouie, Fatemeh Ghaffari <sup>26</sup>	2016	30	Organizational, cultural and social factors	
Samira Shahpouri, Kourosh Namdari, Ahmad Abedi <sup>27</sup>	2016/ Isfahan	208	Job resources are associated with turnover intention with the mediating role of work engagement. Although the resources solely interact with the intention to quit service, there was a mediating role of work engagement as well.	
Maryam Mohamadzadeh Nojehdehi; Mansoureh Ashgholi Farahani, Forough Rafii; Nasser Bahrani <sup>28</sup>	2015/ Tehran	125	There was an inverse relationship between organizational climate and service left in hospitals with an excellence award.	
Nobahar, M.Ahmadi, F.Alhani, F.Fallahi Khoshknab, M <sup>29</sup>	2013	20	Main themes included: work problems and unpleasant job experiences with the following subthemes: tedious work, low payments, inappropriate communication and social status.	
Mosadeghrad M <sup>30</sup>	2013	296	Job stress was directly related to the desire to leave	More than 35% of nurses indicated that they tended to leave
Hesam, Moslem Asayesh, Hamid, Roohi, Ghanbar Shariati, Alireza, Nasiry, Hossein <sup>31</sup>	2012 Gorgan	167	Improving the nursing quality of work life could reduce the rate of intent to leave of nursing profession.	52.2 tended to leave

Table 2 Continue

Authors	Years/ location	Sample size	Effective Factors on nurses outflows	Intention to leave service
Chamani Cheragh Tapeh, R. & Mahmoudi, A. H. & Baba Mahmoudi, A <sup>32</sup>	2012 Tehran	388	Factors affecting retention: 1. Organizational factors (participation, motivation, organizational relationships, education and performance management). 2. Individual elements (strength and skill, job satisfaction and merit/competency) 3. Occupational factors (meaningful and challenging work, freedom and independence of action and clarity of roles)	
Hamidreza Delavi, Mazaher Ganji <sup>33</sup>	2014/ Sharekord	180	There was a negative and significant relationship between ethical leadership and intention to leave a job, and there was a positive and significant relationship between work stress and the intention to leave. There was also a negative and significant relationship between ethical leadership and work stress.	The average score for the intention to leave service was 3.42, which means an average level
Hassani Mohammad, Joudat Kordlar Laila <sup>34</sup>	2011 Urumia	209	the significant positive relationship between perception of organizational justice with job satisfaction and organizational citizenship behavior.	
Farhadi A, Movahedi Y, Nalchi M, Daraei M, Mohammadzadegan R <sup>35</sup>	2013 Khorramabad	220	The work-family conflict could predict the desire to leave a job in female nurses.	
Jalil Kaveh, Dr. Mohammad Farahbakhsh, Abolghasem Hokm Tapour, Mohammad Ghiyasi <sup>36</sup>	2011 Tehran	125	There is a definite correlation between participatory leadership style of the head nurses and their desire to continue their nursing activities.	
Abasszadeh A Nakhaei N, Borhani F, Roshanzadeh M <sup>37</sup>	2012 Birjand	220	There was no significant relationship between the moral distress and the desire to remain in the profession for the nurses.	
Abbas Abbaszadeh, Nozar Nakhaee, Fariba Borhani, Mostafa Ravesh Nezadeh <sup>38</sup>	2013 Birjand	300	The desire to leave the profession was significantly correlated with variables such as age, length of service, type of care unit, and income.	The average willingness of nurses to leave the profession was (1.49 + -1.44) (out of a total of 5).
Seyed Mohammad Zahedi, Farzad Ghajariye <sup>39</sup>	2011 Tehran	140	The tendency to survival with emotional commitment and normative commitment was statistically significant	
Gholamreza Hariri, Faride Yaghmayi, Mansoure Zagheri Taghrashi, Nezhat Shakeri <sup>40</sup>	2012 Tehran	350	There is a negative and significant correlation between age and willingness to leave, as well as between work experience and termination of service. There was a significant correlation between the organizational post and the tendency to leave and the type of shift and the propensity to leave.	Average 3.35 out of 5
Maryam Mohammad Zade Nodehi, Forough Rafiee, Mansoure Ashghali Farahani, Naser Bohrani <sup>41</sup>	2014 Tehran	248	Organizational Excellence Plans provided an appropriate platform for nurses to increase their inspiration and satisfaction and decrease the intention to leave.	
Fariborz Rahim Nia, Masoume Aref <sup>42</sup>	2010 Mashhad	180	There were definite effects of internal marketing with organizational commitment, as well as turnover and intention to leave. The moderating influence of individual fit with the organization has also been confirmed by the relationship between organizational commitment and the intention to leave a job.	

Table 2 Continue

Authors	Years/ location	Sample size	Effective Factors on nurses outflows	Intention to leave service
Haniye Hojjati, Fereydoun Azma <sup>43</sup>	2014 Golestan	165	Inferential tests between the moral atmosphere and desire for retention in nurses' work showed a significant difference. There was also a direct and significant correlation between them.	Average of 33.7+- 6.8
Forouzan Atash zadeh Shouride <sup>44</sup>	2012 Iran	159 intensive care unit nurses	The findings showed that ethical stress and intention to leave the ICU nurses were high. There was a significant positive correlation between age, nurses' work history and the ratio of nurses to the number of beds with moral stress.	
Saeed Hamidi Zade, Eisa Mohamadi, Malek Fereydouni Moghaddam <sup>45</sup>	2010 Tehran	105	The clinical problems were the most effective factor in the absence of nursing staff. work-related fatigue was attributed to this issue as well. There was a significant correlation between the absence of work and age and sex.	
Saeed Mortazavi	2013 Yazd	292	Nurses' job satisfaction, led to a decrease in job leaves.	
Forouzan Atash zadeh SHouride, Maryam Rasouli, Mansoure Zagheri Tafreshi <sup>46</sup>	2013	16	Thinking of leaving the service was considered as a significant variable affecting the nurses' leave process.	
Abbas Houshmand Bahabadi, Hadi Seif, Alireza Niokbakht Nasr Abadi <sup>47</sup>	2004 Tehran		The most effective factors in nurses leave included not meeting individual needs (41.2%), economic factors such as lack of salaries and benefits (64.7%), and regarding social factors, non-scientific positions for nurses (54.9%). Besides, the professional factors and lack of attention from relevant authorities to suggestions and lack of support from managers and head nurses in important cases (70.6%) also becomes the critical factors in nurse leave.	
Saeed Ali Akbari Ahmadi, Hossein Mobaraki, Manije Askari Nejad <sup>48</sup>	2012 Kordestan	89	A significant relationship between the intention to leave and service history/length of job experience. Support with job satisfaction and job satisfaction with the intention of leaving had significant relations. Individual and organizational factors affect reducing the intention to leave.	
Fatemeh Khajemahmoud, Gholamhossein Mahmoudi Rad <sup>49</sup>	2017 Zabol	196	Social factors with a mean score of 3.63 out of the 5 had the highest tendency to leave. The mean of occupation, occupational environment and social factors related to the desire to leave the female nurses was significantly higher than males.	The average score of the tendency to leave service 128+-29.9, Majority of the nurses (69.9%) had an average tendency
Tahmoures Hashemi, Mohsen Golparvar <sup>50</sup>	2016 Isfahan	199	A significant relationship between job stress and emotional exhaustion, with perceived organizational support, with leave. Same significance appeared between emotional exhaustion with perceived organizational support and left of service, and between perceived organizational supports for leaving the service.	
Alireza Nikbakht Nasr Abadi, Amir Salari, Mohammad Hosseinpour, Mirsaeed Yekani nejad <sup>51</sup>	2013 Shiraz	187	There was a significant correlation between burnout and tendency to quit service.	The tendency to leave was in the medium range (2.95 out of 5)

Table 2 Continue

Authors	Years/ location	Sample size	Effective Factors on nurses outflows	Intention to leave service
Mahdi Sabokrou, Reza Kalhorian, Zeinalabedin Kamjoo, Gholamreza Taleghani <sup>52</sup>	2011 Tehran	494	Family Conflict had a positive correlation with the desire to leave. Other positive associations included marital status with work and family conflicts, work experience with work and family conflicts and the number of children with family conflict.	
Zahra Farsi, Nahid Dehghan-nayeri, Reza Negarandeh, and Soheila Broomand <sup>53</sup>	2010		Job dissatisfaction, and poor nurses' social status.	
Hasan Abedi Jafari, Elahe Shie Zadeh, Seyed Samira Seyed Hosseini <sup>54</sup>	2014	110	Self-esteem and non-citizen behaviors cannot provide proper predictive power regarding nurses desire to quit serving. Moreover, jealousy did not affect the willingness to leave.	

## DISCUSSION

This systematic review aimed to investigate the factors affecting nurses' outflow from Iran's health system. 33 studies were included. Although some studies have been conducted in our country, the search of the studies showed that there was no systematic review study to collect the results of these studies in order to provide a clear view of effective factors on nurses' outflow.

Overall, as this research showed, organizational factors such as environment and work condition and regulatory atmosphere can play a significant role in nurses tendency to leave services. A study in this line has shown that work environment and nurses needs had a significant correlation with leave of job. Moreover, improvement of work atmosphere/space could increase job satisfaction and decrease level of leave.<sup>55</sup>

Based on a study creating an appropriate work environment has led to increased work satisfaction and decreased the tendency to leave job by nurses and it resulted in improved and enhanced outcomes from nursing services and care.<sup>56</sup> Studies have also shown that with an increase in head nurse support and colleagues their leave rate drops.<sup>57,58</sup>

Job satisfaction has been another relevant factor regarding leave of nurses. Observations have shown that lack of job satisfaction was one of the contributors to quitting a profession. However, numerous other factors may be involved in the job satisfaction as well.<sup>59</sup>

Previous evidence showed that job stress and satisfaction had a significant inverse relationship.<sup>60,61</sup> Elithrap indicated that job satisfaction had a median role linking job stress and tendency to leave service.<sup>61</sup> She also showed that weakening job satisfaction may lead to leave of service as well. Likewise, a research by Paille P showed that job satisfaction was a definite median factor between

stressful events at work and tendency to leave service.<sup>62</sup>

Based on findings from the present research, quality of work life was one of the affecting factors to leave of service for the nurses in Iran. Chiu YL et al. stated in their findings that nurses showed the highest tendency to leave service with an increase in occupational need and decreased control on work conditions, however, occupational social support could perhaps decrease this level.<sup>63</sup> Currie EJ, Carr Hill RA, in their study on factors contributing to leave of nurses, showed that job satisfaction and other key factors including work environment, personal reasons, and economic reasons had an influence on nurses leave.<sup>20,64</sup> Chena H et al. conducted research on nurses in Thailand and reported that distributive justice, workload, inadequate resources, supervisors support, family support and job satisfaction had a strong relationship with a tendency to stay in the organization.<sup>64</sup>

Findings of this research showed that social factors were the other factors regarding nurses' leave of service. In this respect, a study by Chiu Y showed that social support could decrease the intention of leaving service as supervisors support could decrease job stress and colleagues support reduced their move in the organization.<sup>63</sup> The study in China found that occupational exhaustion and tendency to leave service were significantly correlated.<sup>65</sup> Likewise, Mulki et al showed that ethical climate affected leave of service and their relationship was completely impacted by roles stress, interpersonal conflicts, emotional fatigue, trust in supervisor and finally, job satisfaction.<sup>66</sup>

Findings from most previous research in Iran demonstrated that retention in nursing profession was on an average level and a similar study in Malaysia found the same average tendency.<sup>31</sup>

Factors such as communication and behavior together with trust, clarity of duties, participatory decision making, and perception of nursing value were the affecting factors in the retention of nurses in another study.<sup>67</sup>

According to a study in Ireland, nurses' absence rate was 36.7% and the most important reason was workload fatigue (57.9%), work tension (39.4%) and personal problems (37.5%). In USA, absence rate in different categories of nurses was 28.3% that the most important reasons were work tension and acute physical/health illnesses. Moreover, in Canada, 27.4% were due to acute physical illnesses such as waist ache, excessive fatigue and other acute illnesses and 41.8% were because of personal and family issues.<sup>68-70</sup> Boomer and Harris have emphasized on this phenomenon and believed that nurses should be stopped from leaving jobs by applying a number of measures including timely financial payments which can partly offset the reasons for leaving a job due to financial matters.<sup>71,72,21</sup>

## CONCLUSION

Based on the results of this study, several factors have significant effects on the intention of nurses to leave a healthcare system ranging from justice, commitment, individual and organizational factors to cultural, economic, and social factors. Therefore, it seems essential that hospital managers consider these factors in their planning and decision makings. Other stakeholders like health care providers, administrators and policy makers of countries can also use the results of the current study in their planning and policy-making. They should also attempt to lay grounds for desirable organizational, cultural and motivational conditions for nurses in hospitals so that by increasing their job satisfaction their work stress alleviates.

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## CONFLICT OF INTEREST

None declared

## REFERENCES

- Smith JL. Critical discourse analysis for nursing research. *Nursing Inquiry*. 2007;14(1):60-70.
- Vance C. On becoming a professional. *Nurs Educ*. 1985;10(3):20-5.
- Duffield CM, Roche MA, Homer C, Buchan J, Dimitrelis S. A comparative review of nurse turnover rates and costs across countries. *Journal of advanced nursing*. 2014;70(12):2703-12.
- Valizadeh L, Zamanzadeh V, Habibzadeh H, Alilu L, Shakibi A. Coping Strategies to Hinder Intention to Leave in Iranian Nurses: A Qualitative Content Analysis. *International Journal of Community-based Nursing and Midwifery*. 2015;3(4):318.
- Abasszadeh A, Nakhaee N, Borhani F, Roshanzadeh M. Assessment tendency of clinical nurses to leave the profession: a case study. *Quarterly Journal of Nursing Management*. 2014;2(4):71-9.
- Nayeri ND, Negarandeh R. Conflict among Iranian hospital nurses: a qualitative study. *Human resources for health*. 2009;7(1):25.
- Aiken LH, Clarke SP, Sloane DM, Sochalski J, Silber JH. Hospital nurse staffing and patient mortality, nurse burn-out, and job dissatisfaction. *JAMA*. 2002;288(16):1987-93.
- Nantsupawat A, Srisuphan W, Kunaviktikul W, Wichaiakhum OA, Aunguroch Y, Aiken LH. Impact of nurse work environment and staffing on hospital nurse and quality of care in Thailand. *Journal of Nursing Scholarship*. 2011;43(4):426-32.
- Tincello D, Alfirevic Z. Important clinical outcomes in urogynecology: views of patients, nurses and medical staff. *International Urogynecology Journal*. 2002;13(2):96-8.
- Hudspeth R. Staffing healthy workplaces: Some global nursing shortage issues. *Nursing administration quarterly*. 2013;37(4):374-6.
- Tai TWC, Bame SI, Robinson CD. Review of nursing turnover research, 1977-1996. *Social science & medicine*. 1998;47(12):1905-24.
- Hayes LJ, O'Brien-Pallas L, Duffield C, Shamian J, Buchan J, Hughes F, et al. Nurse turnover: a literature review—an update. *International journal of nursing studies*. 2012;49(7):887-905.
- Chiavenato I. 2008. *Gestão de pessoas*. Elsevier Brasil.
- Ruiz PBdO, Perroca MG, Jericó MdC. Cost of nursing turnover in a Teaching Hospital. *Revista da Escola de Enfermagem da USP*. 2016;50(1):101-8.
- Medeiros CRG, Junqueira ÁGW, Schwingel G, Carreno I, Jungles LAP, Saldanha OmdFL. Nurses and doctors turnover: an impasse in the implementation of the Family Health Strategy. *Ciencia & Saude Coletiva*. 2010;15:1521-31.
- AbuAlRub R, Omari F, Al-Zaru I. Support, satisfaction and retention among Jordanian nurses in private and public hospitals. *International Nursing Review*. 2009;56(3):326-32.
- Blegen MA. Nurses' job satisfaction: a meta-analysis of related variables. *Nursing Research*. 1993;42(1):36-41.
- World Health Organization. 2006. *The World Health Report 2006: Working Together For Health*.
- Dasgupta P. Nurses' Intention To Leave: A Qualitative Study In Private Hospitals. *Globsyn Management Journal*. 2014;8(1/2):77.
- Crow SM, Hartman SJ. Nurse attrition as a process. *The Health Care Manager*. 2005;24(3):276-83.
- Jones CB. Revisiting nurse turnover costs: adjusting for inflation. *Journal of Nursing Administration*. 2008;38(1):11-8.
- 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. *Journal of advanced nursing*. 2012;68(3):521-38.

23. Holtom BC, Mitchell TR, Lee TW, Eberly MB. 5 Turnover and Retention Research: A Glance at the Past, a Closer Review of the Present, and a Venture into the Future. *Academy of Management Annals*. 2008;2(1):231-74.
24. Valizadeh L, Zamanzadeh V, Habibzadeh H, Alilu L, Gillespie M, Shakibi A. Experiences of Iranian nurses that intent to leave the clinical nursing: a content analysis. *Journal of Caring Sciences*. 2016;5(2):169.
25. Tourani S, Khosravizadeh O, Omrani A, Sokhanvar M, Kakemam E, Najafi B. The Relationship between Organizational Justice and Turnover intention of Hospital Nurses in Iran. *Materia Socio-Medica*. 2016;28(3):205.
26. Farahani MA, Oskouie F, Ghaffari F. Factors affecting nurse turnover in Iran: A qualitative study. *Medical Journal of the Islamic Republic of Iran*. 2016;30:356.
27. Shahpouri S, Namdari K, Abedi A. Mediating role of work engagement in the relationship between job resources and personal resources with turnover intention among female nurses. *Applied Nursing Research*. 2016;30:216-21.
28. Nojehdehi MM, Farahani MA, Rafii F, Bahrani N. A Comparison of Organizational Climate and Nurses' Intention to Leave Among Excellence Awarded Hospitals and Other Hospitals in 2013. *Iranian Red Crescent Medical Journal*. 2015;17(5).
29. Nobahar M, Ahmadi F, Alhani F, Fallahi Khoshknab M. Experiences of Retired Nurses of Health Status during Retirement: A Content Analysis. *Journal of Qualitative Research in Health Sciences*. 2013;2(1):21-32.
30. Mosadeghrad AM. Occupational stress and turnover intention: implications for nursing management. *International Journal of Health Policy and Management*. 2013;1(2):169.
31. Hesam M, Asayesh H, Roohi G, Shariati A, Nasiry H. Assessing the relationship between nurses' quality of work life and their intention to leave the nursing profession. *Quarterly Journal of Nursing Management*. 2012;1(3):28-36.
32. Chamani Cheragh Tapeh RM, A. H. & Baba Mahmoudi, A. Factors affecting staying of Daneshgar nurses in hospitals. *Journal of Nursing Management*. 2012;1(3).
33. Ganji M, Dalvi M. The Impact of ethical leadership on job stress and occupation turnover intention in nurses of hospitals affiliated to Shahrekord University of Medical Sciences. *Journal of Shahrekord University of Medical Sciences*. 2014;16(1):121-8.
34. Hassani M JL. The study of relationship between perception of organizational justice with turnover intention, job satisfaction and organizational citizenship behavior of medical staff of Urmia Imam Reza Hospital. *J Urmia Nurs Midwifery Fac*. 2012;10(3).
35. Farhadi AMY, Nalchi M, Daraei M, Mohammadzadegan R. The Relationship between Work-family Conflict, Burnout Dimensions and Intention to Leave among Female Nurses. *IJN*. 2013;26(84):34-43.
36. Jalil Kaveh MF, Abolghasem Hekmatpour, Mohammad Ghiasy. Relationship between leadership style of head nurses with continuing activities of nurses in specialized units of selected hospitals of Shahid Beheshti University of Medical Sciences, 2009. *Pajoohande*. 2011;16(3):112-6.
37. Abasszadeh A Nakhaei N BF, Roshanzadeh M. Ethical Distress in Clinical Practice of Nurses: A Cross-Sectional Descriptive Study. *Journal of Medical Ethics*. 2012;21(6):113-30.
38. Abasszadeh A NN, Borhani F, Roshanzadeh M. Assessment tendency of clinical nurses to leave the profession: a case study. *Quarterly Journal of Nursing Management*. 2014;2(4):71-9.
39. Zahedi SM GF. Relationship between Organizational Commitments and Nurses' Intention to Remain at Health Centers Affiliated to Army of the Islamic Republic of Iran. *Iran Journal of Nursing*. 2011;24(73):19-26.
40. Hariri GR YF, Zagheri Tafreshi M, Shakeri N. Assessment of some factors related to leave in nurses and their demographic characters in educational hospitals of Shahid Beheshti University of Medical Sciences. *Health Promotion Management*. 2012;1(3):17-27.
41. Mohamadzadeh Nojehdehi MRF, Ashghali-Farahani M, N. B. Comparing Nurses' Intention to Leave in Hospitals of Execute/Non-Execute Organizational Excellence Model. *Iran Journal of Nursing*. 2014;27(88):46-55.
42. Rahim Nia F AM. The Effect of Internal Marketing and Job Rotation on Nurses' Turnover Intention. *Iran Journal of Nursing*. 2014;27(89):50-60.
43. Haniyeh Hojati FA. Relationship between ethical climate and the intention to remain in clinical nurses. *Quarterly Journal of Nursing Management*. 2014;3(1):19-26.
44. Atashzadeh Shorideh F ATF. The response of nurses in special sectors to moral stress: a qualitative study. *Nursing Special Care*. 2012;4(4):159-73.
45. Hamidzadeh SME, Fereydoni Moghadam M. Investigating factors associated with the occurrence of absenteeism among the nursing staff working in the educational centers of Tehran University of Medical Sciences. *Journal of Nursing and Midwifery Faculty*. 2010;20(68):6-10.
46. Foroozan Atashzadeh Shoorideh MR, Mansoureh Zagheri Tafreshi. Nurses' Turnover Process: A Qualitative Research. *J Qual Res Health Sc*. 2014;3(1):62-79.
47. Hooshmand Bahabadi A SH, Nikbakht Nasrabadi A. survey of nurse burnout in a 10 years period. *Medicine and Cultivation*. 2004;55:10-21.
48. Ahmadi SAA MH, Askari Nejad M. Investigating the Factors Affecting the Nurses' Leave. *Scientific Journal of Kurdistan University of Medical Sciences*. 2012;17:101-10.
49. Khajehmahmood F, Mahmoudirad G. Survey Tendency to Leave Service and its Related some Factors Among Nurses in Zabol University Hospitals. *Journal of Clinical Nursing and Midwifery*. 2017;6(1):73-83.
50. Hashemi T GM. The Role of Perceived Organizational Support on Relationship between Job Stress and Emotional Exhaustion with Turnover among Nurses. *Journal of Clinical Nursing and Midwifery*. 2016;4(4):29-39.
51. Nikbakht Nasrabadi A SA, Hosseinpour M, Yekaninejad MS. Study the rate of burnout and intention to leave and their relationship among emergency department nurses. *Nursing Research*. 2014;3(34):19-29.
52. Sabokro M KR, Kamjo Z, Taleqani Gh. Work-Family Conflict: The Role of Perceiving Organizational Support in the Purpose of Abandonment (Case Study of Hospital Nurses in Tehran). *Governmental Management*. 2011;3(6):111-26.
53. Farsi Z, Dehghan-Nayeri N, Negarandeh R, Broomand S. Nursing profession in Iran: an overview of opportunities and challenges. *Japan Journal of Nursing Science*. 2010;7(1):9-18.
54. Abedi Jafari HSE, Seyed Hoseini SS. The effect of jealousy on the desire to quit serving nurses to mediate self-esteem and non-christian behaviors. *Organizational Culture Management*. 2014;12(4):763-86.
55. Stone PW, Mooney-Kane C, Larson EL, Pastor DK, Zwanziger J, Dick AW. Nurse working conditions, organizational climate, and intent to leave in ICUs: an instrumental variable approach. *Health Services Research*. 2007;42(3p1):1085-104.
56. Almalki MJ, FitzGerald G, Clark M. The relationship between quality of work life and turnover intention of primary health care nurses in Saudi Arabia. *BMC Health Services Research*. 2012;12(1):314.
57. Ahmadi SAA, Mobaraki H, AskariNejad M. Assessment of the factors influencing the nurses' intention to leave their job. *Scientific Journal of Kurdistan University of Medical Sciences*. 2012;17(1):99-108.
58. Hariri G, Yaghmaei F, Shakeri N. Assessment of some factors related to leave in nurses and their demographic character in educational hospitals of Shahid Beheshti University of Medical Sciences. *Journal of Health Promotion Management*. 2012;1(3):17-27.
59. Coomber B, Barriball KL. Impact of job satisfaction components on intent to leave and turnover for hospital-based nurses: a review of the research literature. *International Journal of Nursing Studies*. 2007;44(2):297-314.

60. Griffin ML, Hogan NL, Lambert EG, Tucker-Gail KA, Baker DN. Job involvement, job stress, job satisfaction, and organizational commitment and the burn-out of correctional staff. *Criminal Justice and Behavior*. 2010;37(2):239-55.
61. Elitharp T. *The relationship of occupational stress, psychological strain, satisfaction with job, commitment to the profession, age, and resilience to the turnover intentions of special education teachers*. Doctoral dissertation, Faculty of the Virginia Polytechnic Institute and State University. 2005
62. Paillé P. Perceived stressful work, citizenship behaviour and intention to leave the organization in a high turnover environment: Examining the mediating role of job satisfaction. *Journal of Management Research*. 2011;3(1):1.
63. Chiu Y-L, Chung R-G, Wu C-S, Ho C-H. The effects of job demands, control, and social support on hospital clinical nurses' intention to turn over. *Applied Nursing Research*. 2009;22(4):258-63.
64. Currie EJ, Carr Hill RA. What are the reasons for high turnover in nursing? A discussion of presumed causal factors and remedies. *International Journal of Nursing Studies*. 2012;49(9):1180-9.
65. Fang ZZ. Potential of China in global nurse migration. *Health Services Research*. 2007;42(3p2):1419-28.
66. Mulki JP, Jaramillo JF, Locander WB. Effect of ethical climate on turnover intention: Linking attitudinal-and stress theory. *Journal of Business Ethics*. 2008;78(4):559-74.
67. Zahedi S, Ghajarieh F. Relationship between organizational commitments and nurses' intention to remain at health centers affiliated to army of the Islamic Republic of Iran. *Iran Journal of Nursing*. 2011;24(73):19-26.
68. Timmins F, Kaliszer M. Attitudes to absenteeism among diploma nursing students in Ireland—an exploratory descriptive survey. *Nurse Education Today*. 2002;22(7):578-88.
69. Price JL, Mueller CW. 1986. *Absenteeism and turnover of hospital employees*. JAI press: Greenwich
70. Parkes KR. Relative weight, smoking, and mental health as predictors of sickness and absence from work. *Journal of Applied Psychology*. 1987;72(2):275.
71. Boomer L. Build a firm foundation for retention and attraction. *Accounting Today*. 2006.
72. Harris N. Management of work-related stress in nursing. *Nursing Standard*. 2001;16(10):47-52.



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