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

Samira Alirezaei,1* Soudabeh Vatankhah,2* Hasan Abolghasem Gorji3

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

INTRODUCTION

A nurse practitioner (NP) is a registered nurse (RN) with additional education in health assessment, diagnosis, and management of illnesses and injuries. Nurses are one of the essential health workforces.2,3 Nurses are the highest professional workforce at a hospital, and they have become a critical factor in improving productivity and competitiveness of hospitals.4 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.5 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.6 Nurses in all countries are at high risk of burnout, low job satisfaction, and intention to leave,7,8 all of which regarded as essential nursing outcomes. These outcomes have received increasing attention because of the widespread shortage of nurses.9,10 Although Nursing Turnover is a global concern, its definition and measurement vary according to different research authors.11-14 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).15

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.16 Thus, nurse administrators need to be concerned with factors that enhance satisfaction and retention of nurses and, consequently, reduce turnover rates.17 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.18

In the healthcare industry, the attrition rate of nurses has been the highest among all employee
Nurses do not leave an organization without any significant reason unless due to certain circumstances that may lead to their leave from an organization. Healthcare organizations spend a significant amount of funds to replace nurses and they also lose intellectual capital when nurses quit. 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.

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).

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**Table 1** Inclusion and exclusion criteria

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
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<tbody>
<tr>
<td>Studies published in English or Persian</td>
<td>Clinical studies relating to nurses duties and job</td>
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<tr>
<td>All articles published from 2000 to 2016</td>
<td>Letter to the editors</td>
</tr>
<tr>
<td>Studies concerning effecting factors on outflows of nurses</td>
<td>Articles presented in seminars and conferences</td>
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</table>
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

<table>
<thead>
<tr>
<th>Authors</th>
<th>Years/location</th>
<th>Sample size</th>
<th>Effective Factors on nurses outflows</th>
<th>Intention to leave service</th>
</tr>
</thead>
</table>
| Leila Valizadeh, Vahid Zamanzadeh, Hosein Habibzadeh, Leyla Alilu, Ali Shakibi
tourani, Omid Khosravizadeh, Amir Omrani, Mobin Sokhanvar, Edris Kakemam and Behnam Najaf | 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 | 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 | 2016 | 30 | Organizational, cultural and social factors | |
| Samira Shahpouri, Kourosh Namdari, Ahmad Abedi | 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 | 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.Fallah Khoshknab, M
tourani, Omid Khosravizadeh, Amir Omrani, Mobin Sokhanvar, Edris Kakemam and Behnam Najaf | 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 | 2013 | 296 | Job stress was directly related to the desire to leave | |
| Hesam, Moslem Asayesh, Hamid, Roohi, Ghanbar Shariati, Alireza, Nasiry, Hossein | 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**

<table>
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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Hamidreza Delavi, Mazaher Ganji&lt;sup&gt;13&lt;/sup&gt;</td>
<td>2014/Sharekord</td>
<td>180</td>
<td>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.</td>
<td>The average score for the intention to leave service was 3.42, which means an average level</td>
</tr>
<tr>
<td>Hassani Mohammad, Joudat Kordlar Laila&lt;sup&gt;14&lt;/sup&gt;</td>
<td>2011 Urumia</td>
<td>209</td>
<td>the significant positive relationship between perception of organizational justice with job satisfaction and organizational citizenship behavior.</td>
<td></td>
</tr>
<tr>
<td>Farhadi A, Movahedi Y, Nalchi M, Daraei M, Mohammadzadegan R&lt;sup&gt;15&lt;/sup&gt;</td>
<td>2013 Khorramabad</td>
<td>220</td>
<td>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.</td>
<td></td>
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<tr>
<td>Jalil Kaveh, Dr. Mohammad Farahbakhsh, Abolghasem Hokm Tapour, Mohammad Ghiyasi&lt;sup&gt;16&lt;/sup&gt;</td>
<td>2011 Tehran</td>
<td>125</td>
<td>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.</td>
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<tr>
<td>Abasszadeh A Nakhaei N, Borhani F, Roshanzadeh M&lt;sup&gt;17&lt;/sup&gt;</td>
<td>2012 Birjand</td>
<td>220</td>
<td>The work-family conflict could predict the desire to leave a job in female nurses.</td>
<td></td>
</tr>
<tr>
<td>Abbas Abbaszadeh, Nozar Nakhaee, Fariba Borhani, Mostafa Raveshe Nezadeh&lt;sup&gt;18&lt;/sup&gt;</td>
<td>2013Birjand</td>
<td>300</td>
<td>The desire to leave the profession was significantly correlated with variables such as age, length of service, type of care unit, and income.</td>
<td>The average willingness of nurses to leave the profession was (1.49 + 1.44) (out of a total of 5).</td>
</tr>
<tr>
<td>Seyed Mohammad Zahedi, Farzad Ghaajari&lt;sup&gt;19&lt;/sup&gt;</td>
<td>2011 Tehran</td>
<td>140</td>
<td>The tendency to survival with emotional commitment and normative commitment was statistically significant</td>
<td>Average 3.35 out of 5</td>
</tr>
<tr>
<td>Gholamreza Hariri, Faride Yaghamayi, Mansoure Zagheri Taghrashi, Nezhat Shakeri&lt;sup&gt;20&lt;/sup&gt;</td>
<td>2012 Tehran</td>
<td>350</td>
<td>There is a definite correlation between participatory leadership style of the head nurses and their desire to continue their nursing activities.</td>
<td></td>
</tr>
<tr>
<td>Maryam Mohammad Zade Nodehi, Forough Rafiee, Mansoure Ashghali Farahani, Naser Bohrani&lt;sup&gt;21&lt;/sup&gt;</td>
<td>2014 Tehran</td>
<td>248</td>
<td>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.</td>
<td>Organizational Excellence Plans provided an appropriate platform for nurses to increase their inspiration and satisfaction and decrease the intention to leave.</td>
</tr>
<tr>
<td>Fariborz Rahim Nia, Masoume Aref&lt;sup&gt;22&lt;/sup&gt;</td>
<td>2010 Mashhad</td>
<td>180</td>
<td>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.</td>
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</tbody>
</table>
**Table 2** Continue

<table>
<thead>
<tr>
<th>Authors</th>
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<th>Sample size</th>
<th>Effective Factors on nurses outflows</th>
<th>Intention to leave service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haniye Hojjati, Fereydoun Azma</td>
<td>2014 Golestan</td>
<td>165</td>
<td>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.</td>
<td>Average of 33.7+-6.8</td>
</tr>
<tr>
<td>Forouzan Atash zadeh Shouride</td>
<td>2012 Iran</td>
<td>159 intensive care unit nurses</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>Saeed Hamidi Zade, Eisa Mohamadi, Malek Fereydouni Moghaddam</td>
<td>2010 Tehran</td>
<td>105</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>Saeed Mortazavi</td>
<td>2013 Yazd</td>
<td>292</td>
<td>Nurses’ job satisfaction, led to a decrease in job leaves.</td>
<td></td>
</tr>
<tr>
<td>Forouzan Atash zadeh SHouride, Maryam Rasouli, Mansoure Zagheri Tafreshi</td>
<td>2013</td>
<td>16</td>
<td>Thinking of leaving the service was considered as a significant variable affecting the nurses’ leave process.</td>
<td></td>
</tr>
<tr>
<td>Abbas Houshmand Bahabadi, Hadi Seif, Alireza Niokbakht Nasr Abadi</td>
<td>2004 Tehran</td>
<td>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.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saeed Ali Akbari Ahmadi, Hossein Mobarak, Manije Askari Nejad</td>
<td>2012 Kordestan</td>
<td>89</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>Fatemeh Khajemahmoud, Gholamhossein Mahmoudi Rad</td>
<td>2017 Zabol</td>
<td>196</td>
<td>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</td>
<td></td>
</tr>
<tr>
<td>Tahmoures Hashemi, Mohsen Golparvar</td>
<td>2016 Isfahan</td>
<td>199</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>Alireza Nikbakht Nasr Abadi, Amir Salari, Mohammad Hosseinpour, Mirsaede Yekani nejad</td>
<td>2013 Shiraz</td>
<td>187</td>
<td>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)</td>
<td></td>
</tr>
</tbody>
</table>
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.

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. Studies have also shown that with an increase in head nurse support and colleagues their leave rate drops.

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.

Previous evidence showed that job stress and satisfaction had a significant inverse relationship. Elithrap indicated that job satisfaction had a median role linking job stress and tendency to leave service. 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.

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. 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.

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. The study in China found that occupational exhaustion and tendency to leave service were significantly correlated. 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.

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.
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.57

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.68-70 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.71,72,21

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

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