Correlation of the job turnover intention of Iranian nurses with job satisfaction and burnout in the COVID-19 pandemic

Maede Fasih Far, Hamid Sharif Nia[1], Abdolghader Assarroudi[2]

Student Research Committee, School of Nursing, Sabzevar University of Medical Sciences, Sabzevar, Iran, [1]Department of Nursing, Amol School of Nursing and Midwifery, Mazandaran University of Medical Sciences, Sari, Iran, [2]Department of Medical-Surgical Nursing, Iranian Research Center on Healthy Aging, School of Nursing and Midwifery, Sabzevar University of Medical Sciences, Sabzevar, Iran

Address for correspondence:
Dr. Abdolghader Assarroudi, Department of Medical-Surgical Nursing, Iranian Research Center on Healthy Aging, School of Nursing and Midwifery, Sabzevar University of Medical Sciences, Sabzevar, Iran.
E-mail: ghaderassar@yahoo.com

Received: 28-08-2021
Accepted: 22-01-2022
Published: 26-11-2022

Abstract:

BACKGROUND: The COVID-19 pandemic has led to numerous psychological consequences and a drastic increase in the workload of nurses. The present study aimed to investigate the correlation of the job turnover intention of Iranian nurses with job satisfaction and burnout in the COVID-19 pandemic.

MATERIALS AND METHODS: This cross-sectional descriptive study was conducted on 300 nurses working in the hospitals in Sabzevar, Iran from October 2020 to January 2021. Data were collected using the questionnaires of turnover intention, Spector job satisfaction, and Maslach burnout in a self-report manner. Correlation analysis was used. Then, for assessing a predictive model used a simple linear regression and multiple linear regression analyses. Data analysis was performed using SPSS version 24.

RESULTS: The results showed that the variables of burnout and job satisfaction are effective on nurses' willingness to job turnover. Furthermore, among the background variable, the findings showed that the economic status of nurses and the male gender of patients under their care can be effective on nurses "job turnover intention and can be used as predictor variables of nurses" job turnover intention.

CONCLUSION: According to the results, special attention must be paid to the job satisfaction, burnout, and the economic situation (as a mediator variable) of nurses to prevent their job turnover in the COVID-19 pandemic. Therefore, it is recommended that health managers prevent the job turnover intention of nurses in the COVID-19 pandemic by taking psycho-socio-economic support measures.

Keywords:

Burnout, COVID-19, job satisfaction, personnel turnover, professional

Introduction

The newly emerging disease COVID-19 is the most important challenge faced by health systems in every country, causing more than five and a half million deaths across the world,[1] along with numerous physical, psychological, social, and economic damages.[2] Furthermore, the widespread disease has tremendously increased the workload of nurses as the first line of exposure to the current pandemic.[3] The growing number and workload of patients have been a grave consequence of the COVID-19 pandemic, which largely influences the health and performance of nurses and may even increase the risk of leaving their job.[2]

Studies have shown that nurses' intention to turnover to another job has increased significantly after the COVID-19 pandemic.[4,5] Job turnover intention is defined as leaving a job by an employee in a certain period, which is influenced by factors such as personality traits,[5] job satisfaction, good relationships

with colleagues,[6] age, educational background, job stress, organizational commitment, burnout,[7] management strategies, workforce adequacy, salary and job benefits, stress, anxiety, and a sense of justice.[8] Job turnover of nurses could reduce the quality of nursing care by affecting nursing services.[9] Organizations that can understand the reasons and factors influencing the tendency of employees to leave, will be able to apply effective policies and methods to maintain human resources before employees leave the organization.[10]

In a study performed by Li *et al*. (2019) in China, emergency nurses were reported to have low job satisfaction and high job turnover intention, and job satisfaction was observed to play a mediating role between workplace violence and turnover intention in these nurses.[7] In Iran, statistics show that 88.1% of nurses are relatively dissatisfied with their work environment.[11] These reviews may help health system managers to improve nurses' satisfaction levels and thus higher quality health care.[12] In other words, workplace violence reduced job satisfaction, and job satisfaction increased the tendency of nurses to leave their job. Job satisfaction indicates the extent to which the demands of an employee are met in the workplace,[13] which is affected by factors such as job stress, workplace conditions, disagreements, organizational environment, and income.[12] These factors are known to have a significant impact of the desire of nurses to leave their job or relocate. Research has shown that job satisfaction affects nurses' desire to leave or relocate and there is a negative correlation between these two variable.[7] Burnout is among the key influential factors in job turnover intention and may lead to a negative self-image, negative attitudes toward the profession, and a feeling of a lack of communication with patients, which in turn expose nurses to various physical and psychological disorders. Nurses are prone to burnout due to the nature of the nursing profession and burnout is one of the causes of absenteeism or leaving the job in them, which ultimately leads to poor patient care and increased incidence of medical errors.[14]

The current COVID-19 pandemic has drastically increased nurses' stressors, thereby leading to their untimely burnout and diminishing their job satisfaction and quality of nursing care. Consequently, avoidant adaptive behaviors such as absenteeism and job turnover have also risen in this period.[5] Therefore, it is essential to identify the influential factors in nurses' job turnover intention in the currently high-risk job environment, so that preventive measures could be planned and implemented based on the impact of each variable on job turnover intention.

The present study aimed to investigate the correlation of job turnover intention with job satisfaction and burnout in Iranian nurses during the COVID-19 pandemic.

Materials and Methods

Study design and setting
In this cross-sectional descriptive study, data were collected using questionnaire. The study was conducted during October 2020–January 2021.

Study participants and sampling
Nurses working in the emergency, medical, surgical, psychiatric, and special trauma wards were selected via convenience sampling from the hospitals in Sabzevar, Iran. Nurses with a BSc degree in nursing and a minimum of 6 months of clinical experience were enrolled in the study. and were excluded from the study if they had a history of illness or mental health problems.

Sample size estimated based on following formula:

$$N = ([Z\alpha + Z\beta]/C) \, 2 + 3$$

$$C = 0.5 \times \ln([1 + r]/[1 - r])$$

Adequacy to the study of Scanlan and Still[15] with an effect size of 0.21, α (two-tailed) = 0/05, Power = 95% sample size estimated 289 participants. In total, 500 questionnaires were distributed among the qualified nurses, and 300 questionnaires were returned and statistically analyzed.

Data collection tool and technique
Data were collected using the following questionnaires in a self-report manner.

Job turnover intention
The six-item turnover intention scale (TIS-6) was used to assess the job turnover intention of the nurses. The validity and reliability of the tool have been previously confirmed by Bothma and Roodt. The validity of this questionnaire was done by exploratory factor analysis which led to the discovery of 1 factor (range 0.73–0.81). The reliability coefficient of this questionnaire was reported by Cronbach's alpha of 0.80, which confirms the validity and reliability of this questionnaire. The minimum and maximum scores of TIS-6 are six and 30, respectively and higher scores indicate a tendency for higher job turnover in nurses.[16]

Job satisfaction
Spector job satisfaction questionnaire was used to assess the job satisfaction of the nurses in our study. The validity and reliability of the scale in physicians and nurses have been confirmed by Akbaritabar *et al*. The overall Cronbach's alpha coefficient related to the six subscales extracted is estimated to be 0.666. Of course, the nonidentification of the other three factors of this questionnaire, work processes, side benefits, and

rewards can be due to the same reward system, side benefits, and salaries in Iran. Exploratory factor analysis has led to the discovery of 6 factors in the participants' responses, which explained 65.44% of the total variance. This questionnaire has 36 self-report items in nine dimensions, including salary satisfaction, job promotion, supervision, side benefits, rewards, work processes, colleagues, nature of work, and information. Each dimension is measured by four items. The minimum and maximum scores of this questionnaire are 36 and 216, respectively. How to score this questionnaire is based on a 6-point Likert scale from strongly disagree to strongly agree and the final score is the sum of all questions. Furthermore, getting a high score means having more job satisfaction.[17]

Burnout
In the present study, the Maslach burnout questionnaire was used to assess the rate of burnout in the nurses, the validity and reliability of this questionnaire for the Iranian population have been previously confirmed by Shamloo *et al*. The alpha coefficient of the questionnaire dimensions was 0.79–0.87. Furthermore, the correlation coefficient was performed by the retest test method of 0.87, which indicates the good reliability of this questionnaire. To assess the content validity of this questionnaire, the cumulative volume index was used, which was calculated 0/87, so all questions have high content validity. The construct validity of this scale was performed by exploratory factor analysis and a total of 61.42% of the total variance was explained. In the confirmatory factor analysis, the 3 main factors of MBI-GS were proportional ($X/df = 582.9/74.69/0 = \alpha$ items 3 and 6, $0.78 = \alpha$ items 2 and 4, $\alpha = 0.72$ Items 1 and 5). The questionnaire consists of 22 items in three components of emotional exhaustion, deprivation of personality traits, and feeling of personal success. The minimum and maximum scores of the scale are zero and 132, respectively. How to score the items of this questionnaire is based on the 7-point Likert scale. The options of this test are marked with never, very low, low, medium, above average, high, and very high, and the person expresses his feelings according to the options and higher scores indicate higher burnout in nurses.[18]

Data analysis
Data were analyzed using descriptive statistics, Pearson correlation coefficients. Univariate linear regression analysis was used to analyze the association between single determinants and job turnover Intention. Next, a full multiple linear regression analysis was performed to identify explanatory variables of job turnover Intention among participant scores. Multicollinearity was evaluated by variance inflation factor and tolerance value. Variance inflation factor >10 and tolerance value of 0.1 or less are considered problematic.[19] However, if the assumption of independent errors (autocorrelation) checked by the Durbin–Watson outcome ranges between 1.5 and 2.5, then there is no autocorrelation.[20] Data analysis was performed in SPSS version 24 using simple linear regression analysis, followed by multiple linear regression analysis.

Ethical considerations
The study protocol was approved by Iran National Committee for Ethics in Biomedical Research (ethics code: IR.MEDSAB.REC.1399.087). The nurses would only complete and submit the questionnaires if they consented to participate. Participants were assured that the information would remain confidential with the researcher and the questionnaires were completed anonymously.

Results

Characteristics of the participants
In total, 71% of the participants were female, and 29% were male. The mean age of the participants was 31.7 (standard deviation [SD] = 6.57) years, and their mean work experience was 7.23 (SD = 5.76) years [Table 1].

Correlation of job satisfaction and turnover intention
The mean score of job satisfaction was 124.30, which indicated average job satisfaction in the participants. In addition, the mean score of turnover intention was 14.77, which indicated the low willingness of the nurses to turnover their jobs. As a predictor of job turnover intention in the nurses, a one-unit increase in the job satisfaction score of the nurses would lead to the reduction of the job turnover intention score by 0.119 units during the COVID-19 pandemic.

Table 1: Characteristics of the participants

Variable	*n* (%)	Mean (SD)
Gender		
Female	213 (71)	
Male	87 (29)	
Age (year)		31.7 (6.57)
Duration of work experience (year)		7.23 (5.76)
Name of work department		
Surgery	61 (20.3)	
Internal medicine	81 (27)	
Emergency	92 (30.7)	
Psychiatric	22 (7.3)	
ICU	44 (14.7)	
Type of shift work		
Rotating	281 (93.7)	
Fixed	19 (6.3)	

SD=Standard deviation, ICU=Intensive care unit

Correlation burnout and turnover intention

The mean score of burnout was 89.77, which indicated a high level of burnout in the participants. As a predictor of job turnover intention in nurses, a one-unit increase in the burnout score would decrease the job turnover score by 0.130 unit during the COVID-19 pandemic. Therefore, economic status was considered a mediating variable in the research model, and the role of the economic status variable was controlled (9.445; 95% confidence interval: 0.418; $P = 0.032$; $\beta = 4.931$). As a result, the variance between burnout and reducing job turnover intention could be explained by the economic status variable.

Correlation of contextual variables and turnover intention

Based on simple and multiple linear path analysis tests, A significant correlation was observed between the gender of the patients managed by nurses (i.e., predictive variable) and the nurses' job turnover intention. In other words, the nurses managing male patients were less inclined to job turnover intention by 0.953 unit. As for economic status, a significant correlation was observed between the economic status of the nurses (i.e., predictive variable) and their job turnover intention. In other words, a one-unit increase in the economic status score would decrease the job turnover intention of the employed nurses by 2.105 unit.

Outcomes

The results of multiple regression analysis indicated that the predictive variables of job turnover intention in the nurses were burnout ($\beta = -0.130$), job satisfaction ($\beta = -0.119$), economic status ($\beta = -2.105$), and the male gender of the managed patients by nurses ($\beta = -0.953$) [Table 2].

Discussion

According to the results of the present study, the nurses working during the COVID-19 pandemic had moderate job satisfaction, high job burnout, and a low intention to job turnover. In addition, the two variables of job satisfaction and burnout could predict the intention of job turnover in nurses in the COVID-19 pandemic.

In the study conducted by Yu *et al*., the frontline staff in China had high job satisfaction during the COVID-19

Table 2: Results of linear regression of variables with the turnover intention

Variables	β	*P*	95% CI
Job satisfaction	−0.119	<0.001	−0.099-−0.139
Burnout	−0.130	<0.001	−0.153-−0.106
Gender of patients	−0.953	0.015	−1.719-−0.188
Economic situation	−2.105	<0.001	−3.179-−1.031

CI=Confidence interval

pandemic.[21] In the current research, the nurses' mean score of job satisfaction indicated their average job satisfaction. It seems that different conditions of the work environment in different countries cause variations in the level of nurses' job satisfaction in the current pandemic. Some of the main influential factors in job satisfaction have been reported to be workplace safety, job stress, work environment conditions, disagreements, organizational environment, and income.[12] Wage satisfaction is a significant influential factor in job satisfaction during the COVID-19 pandemic[3] and may lead to differences in the job satisfaction of the health staff in various countries.

In the present study, the mean score of burnout indicated the high level of burnout in the nurses. Considering that exposure to various stressors is common in the COVID-19 pandemic, such a high level of job burnout could point to the multiplicity of the stressors in nurses' workplace.[5] Several studies have confirmed the high prevalence of burnout during the COVID-19 pandemic (20-18), which is consistent with the results of the present study and shows the impact of the COVID_19 disease on mental health of healthcare providers.[4]

In the current research, the mean scores of job turnover intention showed the low willingness of the nurses to turnover jobs. In the study performed by Cole *et al*., the mean score of job turnover intention among COVID-19 frontline nurses in Alabama was estimated at 2.53, which indicated the average willingness of the nurses to turnover jobs.[22] In the study conducted by Mirzaei *et al*. on Iranian nurses, the score of job turnover intention also showed the average level of nurses' desire for job turnover.[6] However, the reports published in Peru have indicated that the tendency for job turnover in healthcare providers is increasing following the saturation of hospitals with COVID-19 patients.[23]

According to the literature, the main influential factors in job turnover intention in nurses include job independence, psychological support, access to personal protective equipment, age, marital status, type of hospital (private/public), the coincidence of disease peaks with the data collection period of studies,[23] the organizational commitment of health-care workers and the quality of their provided care,[3] general health of nurses, job position, work pressure, social support, freedom in decision-making,[6] personal traits of nurses, and their general stress level.[5] It seems that depending on the conditions of each of the mentioned variables in each care structure and individual, the intention to turnover jobs differs.

In the present study, job satisfaction and burnout could predict the nurses' job turnover intention in the COVID-19

pandemic; as job satisfaction increased, the tendency to turnover jobs decreased. Similarly, increased burnout was associated with the decreased intention of job turnover in the employed nurses. Therefore, the economic status variable was observed to have a mediating effect in the research model, and its role was controlled. By controlling the effect of the economic status variable, the variance between burnout and the decreased tendency to turnover jobs could be partly explained by the economic status variable. In this regard, Labrague and de Los Santos reported that the increasing fear of COVID-19 is associated with decreased job satisfaction, as well as increased psychological distress and intention to job turnover.[2] Furthermore, Nashwan *et al*. claimed that burnout leads to avoidant adjustment behaviors such as absenteeism and job turnover.[5] Other studies have also shown that high levels of anxiety, stress, and burnout in the current pandemic are associated with high levels of job turnover intention in numerous hospitals.[24,25] Studies show that contextual variables such as patients' gender and nurses' economic status are also effective in nurses' desire for job transfer and these two variables are also predictors of job transfer intention. it is recommended that health managers prevent the job turnover intention of nurses in the COVID-19 pandemic by taking psycho-socio-economic support measures. Our study had several limitations. First, the studied variables were limited, and the other variables that were recognized in the literature as the influential factors in job turnover intention were not examined. Second, this was a descriptive study, and it was not possible to perform a cause-and-effect examination of the variables. Third, the use of convenience sampling decreased the generalizability of the findings, and the self-report completion of the questionnaires might have led to bias. However, one of the strengths of this study is the relationship between the three variables of burnout, job satisfaction, and job turnover intention at the same time, which led to the identification of predictors of job turnover intention and on the other hand, this study also showed the effect of intermediate variables such as economic status.

Limitation and recommendation

Our study had several limitations. First, the studied variables were limited, and the other variables that were recognized in the literature as the influential factors job turnover intention were not examined. Second, this was a descriptive study, and it was not possible to perform a cause-and-effect examination of the variables. Third, the use of convenience sampling decreased the generalizability of the findings, and the self-report completion of the questionnaires might have led to bias.

Conclusion

The present study aimed to investigate the correlation of the job turnover intention of Iranian nurses in the COVID-19 pandemic with job satisfaction and burnout. According to the results, the variables of job satisfaction and burnout could predict the nurses' job turnover intention in the COVID-19 pandemic. Moreover, the economic status of the nurses (mediating variable) modified the effect of burnout on job turnover intention. Hence, given that several factors affect job satisfaction and burnout, including the physical and psychological characteristics of nurses, conditions, and facilities of the work environment, and social, psychological, and financial support. Therefore, it is recommended that proper measures be taken in terms of the psychological and socioeconomic support of nurses, along with the preparation of facilities and equipment in medical centers, so that the job turnover of nurses in the COVID-19 pandemic could be prevented. Therefore, the managers of the health system, using the results of this study, can provide a safe working environment for nurses by implementing the necessary interventions to increase job satisfaction, reduce burnout in the workplace reduce the job turnover intention and minimize nurses' job turnover.

Conflicts of interest

There are no conflicts of interest.

References

1. WHO Coronavirus (COVID-19) Dashboard. WHO; 2021. Available from: https://covid19.who.int/. [Last accessed on 2022 Feb 01].
2. Labrague LJ, de Los Santos JA. Fear of COVID-19, psychological distress, work satisfaction and turnover intention among frontline nurses. J Nurs Manag 2021;29:395-403.
3. Sharif Nia H, Arslan G, Naghavi N, Sivarajan Froelicher E, Kaveh O, Pahlevan Sharif S, *et al*. A model of nurses' intention to care of patients with COVID-19: Mediating roles of job satisfaction and organisational commitment. J Clin Nurs 2021;30:1684-93.
4. Labrague LJ, De Los Santos JA. COVID-19 anxiety among front-line nurses: Predictive role of organisational support, personal resilience and social support. J Nurs Manag 2020;28:1653-61.
5. Nashwan AJ, Abujaber AA, Villar RC, Nazarene A, Al-Jabry MM, Fradelos EC. Comparing the impact of COVID-19 on nurses' turnover intentions before and during the pandemic in Qatar. J Pers Med 2021;11:456.
6. Mirzaei A, Rezakhani Moghaddam H, Habibi Soola A. Identifying the predictors of turnover intention based on psychosocial factors of nurses during the COVID-19 outbreak. Nurs Open 2021; 8:3469–76.
7. Li N, Zhang L, Xiao G, Chen J, Lu Q. The relationship between workplace violence, job satisfaction and turnover intention in emergency nurses. Int Emerg Nurs 2019;45:50-5.
8. 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. Mater Sociomed 2016;28:205-9.

9. Hariri GR, Yaghmaei F, Zagheri Tafreshi M, Shakeri N. Assessment of some factors related to leave in nurses and their demographic character in educational hospitals of Shahid Behesthi University of medical sciences. J Health Promot Manag 2012;1:17-27.

10. Taghadosi M, Gharghozer N, Bafghi B. Intention to leave of nurses and related factors: A systematic review. Sci J Nurs Midwifery Paramed Fac 2019;4:1-14.

11. Waghar Seiedin SA, Porteghali P, Farrokhfal K. Job satisfaction in nurses working at governmental hospitals affiliated to Birjand University of Medical Sciences. Mod Care J 2005;2:16-22.

12. Boafo IM. The effects of workplace respect and violence on nurses' job satisfaction in Ghana: A cross-sectional survey. Hum Resour Health 2018;16:6.

13. Liu W, Zhao S, Shi L, Zhang Z, Liu X, Li L, *et al.* Workplace violence, job satisfaction, burnout, perceived organisational support and their effects on turnover intention among Chinese nurses in tertiary hospitals: A cross-sectional study. BMJ Open 2018;8:e019525.

14. Ghaderi S, Rezagholy P, Tawana H, Nouri B. The relationship between occupational burnout and intention to leave in nurses working in training hospitals in Sanandaj, Iran. Sci J Nurs Midwifery Paramed Fac 2019;4:25-34.

15. Scanlan JN, Still M. Relationships between burnout, turnover intention, job satisfaction, job demands and job resources for mental health personnel in an Australian mental health service. BMC Health Serv Res 2019;19:62.

16. Bothma CF, Roodt G. The validation of the turnover intention scale. SA J Hum Resour Manag 2013;11:1-12.

17. Akbaritabar AA, Mokarami H, Nazifi M, Rahi A, Mirkamandar E, Hosseinpouri M. Psychometric properties of Spector's job satisfaction survey in the Iranian population. Koomesh 2013;14:335-41.

18. Shamloo ZS, Hashemian SS, Khoshsima H, Shahverdi A, Khodadost M, Gharavi MM. Validity and reliability of the Persian version of the Maslach burnout inventory (general survey version) in Iranian population. Iran J Psychiatry Behav Sci 2017;11(2):e8168.

19. Orme JG, Combs-Orme T. Multiple Regression with Discrete Dependent Variables. New York: Oxford University Press; 2009.

20. Rodriguez JM, Mitra S, Thampi SM, El-Alfy ES. Intelligent Systems Technologies and Applications 2016. Cham, Switzerland: Springer; 2016.

21. Yu X, Zhao Y, Li Y, Hu C, Xu H, Zhao X, *et al.* Factors associated with job satisfaction of frontline medical staff fighting against COVID-19: A cross-sectional study in China. Front Public Health 2020;8:426.

22. Cole A, Ali H, Ahmed A, Hamasha M, Jordan S. Identifying patterns of turnover intention among Alabama frontline nurses in hospital settings during the COVID-19 pandemic. J Multidiscip Healthc 2021;14:1783-94.

23. Yáñez JA, Afshar Jahanshahi A, Alvarez-Risco A, Li J, Zhang SX. Anxiety, distress, and turnover intention of healthcare workers in peru by their distance to the epicenter during the COVID-19 crisis. Am J Trop Med Hyg 2020;103:1614-20.

24. Cai H, Tu B, Ma J, Chen L, Fu L, Jiang Y, *et al.* Psychological impact and coping strategies of frontline medical staff in hunan between january and march 2020 during the outbreak of coronavirus disease 2019 (COVID-19) in Hubei, China. Med Sci Monit 2020;26:e924171.

25. Babore A, Lombardi L, Viceconti ML, Pignataro S, Marino V, Crudele M, *et al.* Psychological effects of the COVID-2019 pandemic: Perceived stress and coping strategies among healthcare professionals. Psychiatry Res 2020;293:113366.