Original Article

Influential factors in job retention and organizational commitment among the nurses working in COVID-19 outbreak

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Abstract

Context: Enormous workrelated pressure following COVID19 pandemic might lead to a decline in persistence and commitment to the organization among nurses.

Aims: This study aimed to determine factors influencing job retention and organizational commitment among Iranian nurses working during COVID19 pandemic.

Setting and Design: This descriptivecorrelational study was performed between April and May 2020 in Imam Khomeini educational hospital, Sari, Iran.

Materials and Methods: All nurses worked in COVID19 wards were invited to participate in our study, of whom 172 accepted to participate in the present study. The inclusion criteria were nurses working in the COVID19 wards of Imam Khomeini Hospital and willingness to participate in the study. Data were gathered through three questionnaires: demographic characteristics, Anticipated Turnover Scale, and Allen organizational commitment. Effect of age, gender, level of education, marital status, work shifts, and work experience were evaluated with both variables.

Statistical Analysis Used: The collected data were analyzed in SPSS software (version 16) using statistical tests such as Pearson's correlation, independent sample ttest, oneway ANOVA, and linear regression analysis.

Results: The mean ± standard deviation of job retention and organizational commitment were 37.70 ± 3.35 and 75.96 ± 8.37, respectively. Job retention and organizational commitment were positively and significantly correlated with each other ($P < 0.001$, $r = 0.33$). Of evaluated factors, the only factor that had a positive and significant relationship with job retention ($P = 0.04$, F = 1.22) and organizational commitment was working experience ($P = 0.04$, F = 2.89).

Keywords: Anticipated turnover, COVID-19 pandemic, Hospital, Professional commitment

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INTRODUCTION

The tendency of nurses to leave their profession is a major challenge in health-care organizations that have existed internationally for a long time for various individual and organizational reasons.[1] According to previous studies conducted in Iran and other countries, before COVID-19 pandemic, the tendency of nurses to leave the service was about 15.1% in Australia,[2] 27% in America,[3] 35% in Iran,[4,5] 38% in German,[6] and 44% in New Zealand.[2]

Coronavirus has been announced as the sixth leading cause of public health emergency worldwide.[7] The outbreak of this virus has resulted in an unprecedented crisis in the health systems of many countries and a serious challenge to the international community. A few weeks after the start of the pandemic, hospitals were recognized as the locations with a high probability of transmission as much medical staff were infected with this virus.[8] According to Labrague *et al*., health-care providers comprise 6% of all the affected cases worldwide.[9] Among all health-care providers, nurses have the most prolonged exposure to COVID-19 patients and are potentially more stressed than other medical staff.[10,11] The corona disaster puts a lot of work pressure on the health workers for a variety of reasons, including fear of infection,[12] stress,[13] staff shortages, equipment shortages, and increased workloads,[14] which increases the rate of quitting.

The importance of human resource retention, especially in the health sector, is obvious to all, but what makes it more special is the retention of human resources during disasters.[15] Owing to an increase in nursing shortages, absenteeism,and turnover, organizational commitment has become extensively important for retention of nurses. Organizational commitment is a sense of dependence and belonging to the organization and a kind of attitude that displays loyalty to the system.[16] According to Cohen, organizational commitment increases performance effectiveness and productivity and reduces the tendency to leave service and commitment at the individual and organizational levels. Before coronavirus pandemic, several studies investigated the level of organizational commitment using Allen and Meyer's Organizational Commitment Questionnaire among clinical nurses all over the world.[17-22] Organizational commitment is reported to be 64.70–98.4 among Iranian nurses in different cities.[18,19,21,22] However, during the coronavirus pandemic, a number of health-care workers refuse to provide services and attendance at their workplaces, and forget about their organizational commitments.[23,24] Several studies have been conducted on organizational commitments and job retention and their related factors among nurses,[17,19-22] but few researches have been conducted on this issue after coronavirus pandemic among nurses.[25-27] This study aimed to determine factors influencing job retention and organizational commitment among Iranian nurses working during COVID-19 pandemic.

MATERIALS AND METHODS

Research design and setting

This descriptive correlational study was carried out in Imam Khomeini Hospital, an educational medical center affiliated to Mazandaran University of Medical Sciences, Sari, Northern Iran. The target population consisted of all nurses working in the hospital during the COVID-19 outbreak. The inclusion criteria were working in the COVID-19 wards of Imam Khomeini Hospital and willingness to participate in the study. Nurses who were reluctant to participate in the research and worked in other wards or more than one hospital were excluded from the study.

Sample size and sampling procedure

The sampling method in this study was convenience sampling method. All nurses who were working in COVID-19 wards in Imam Khomeini Hospital, Sari, Iran, from April to May 2020, were invited to participate in our study. Participation in the study was fully voluntary, and written consent was obtained from each participant. Of 300 eligible nurses working at the hospital at that time, 172 accepted our invitation and participated in our study. G*Power software was used for statistical power analysis. Considering the total sample size of 172 subjects and effect size of 0.3, the power of the study was 0.97.

Data collection tool and procedure

This research was conducted by completing an anonymous self-report questionnaire. After obtaining permission from the research vice-chancellor of Mazandaran University of Medical Sciences, the researcher referred to Imam Khomeini Hospital with a referral and, after coordination with hospital officials, invited all eligible nurses working at COVID-19 wards at the hospital at that time. The questionnaires were given to the head nurse of each ward to be distributed among the nurses to fill out. The head nurses were then asked to collect the completed questionnaires and handed them over to the researcher. Completion of the questionnaire was considered as a declaration of consent to participate in the research. The questionnaire consists of three parts. The first part of the questionnaire consisted of a demographic form that included age, gender, level of education, work experiences, marital status, and work shifts. The second part was the "Anticipated Turnover Scale"

which has been designed by Hinshaw *et al*. consisting of 12 items scored based on a five-point Likert scale ranging from strongly agreed (5) to strongly disagreed (1).[28] The range of scores is between 12 and 60, based on which a score above 42 has a weak tendency to persist, a score between 30 and 42 has a moderate tendency, and a score below 30 indicates a strong tendency to persist. Hariri *et al*. tested the reliability of this scale in Iran with the retest method and reported a reliability coefficient of 0.61.[29] The third part was the Meyer and Allen Organizational Commitment Questionnaire with 24 items[30] divided into three components: affective commitment, defined as "the employee's emotional attachment to, identification with, and involvement in the organization," continuance commitment which relates to how much employees feel the need to stay at their organization, and normative commitment which refers to the employee's feelings of obligation to the organization. Each item was scored based on a five-point Likert scale ranging from strongly agreed (5) to strongly disagreed (1). The total score for organizational commitment was between 24–120 and 8–40 for each component. Scores between 24 and 56 were considered low organizational commitment, scores between 56 and 88 were considered moderate, and scores >88 were considered high organizational commitment. This questionnaire was also tested for validity by Rahmanzadeh *et al*.[31] The approximate time for completing the questionnaires was 30–45 min.

Data analysis

The collected data were analyzed using descriptive statistics, the Pearson's correlation test, independent *t*-test, a one-way ANOVA test, and linear regression analysis in SPSS version 16 (Chicago, SPSS Inc). It should be mentioned that *P* value of 0.05 was considered significant in all tests.

Ethical consideration

In the present study, the participation of subjects was voluntary. Moreover, before completing the questionnaire, the objectives of the study were explained to the nurses and written consent was obtained from all participants. The study was approved by the Ethics Committee of Mazandaran University of Medical Sciences (ethics code: IR.MAZUMS.REC.1399.7733).

RESULTS

In total, 172 nurses participated in the study whose mean ± standard deviation (SD) age and total number of years working as a nurse (work experience) were 37.02 ± 8.433 years and 7.479 ± 11.10 years, respectively. 49.42%, 77.91%, 89.53%, and 59.30% of participants were male, married, had an undergraduate degree, and a fixed shift, respectively [Table 1]. Furthermore, the average job retention and organizational commitment were 37.70 ± 3.35 and 75.96 ± 8.37, respectively, among this cohort. The mean ± SD of the components of organizational commitment were 25.03 ± 3.55 for affective commitment, 24.66 ± 3.05 for normative commitment, and 24.30 ± 3.92 for continuance commitment.

According to the Pearson test results, there was a significant and positive correlation between job retention and organizational commitment; accordingly, with the increase of organizational commitment, the level of job retention increased ($P < 0.001$, $r = 0.337$). Moreover, a positive and significant correlation was observed between the subscales of organizational commitment and job retention [Table 2]. The correlations among affective commitment, continuance commitment, and normative commitment are summarized in Table 2.

Variables of gender ($t = -1.41$, $P = 0.15$), marital status ($t = 0.66$, $P = 0.50$), type of shift (i.e., fixed or rotating) ($t = 0.57$, $P = 0.56$), and level of education (under and post graduate) ($t = -1.23$, $P = 0.21$) had no significant relationship with the job retention of nurses [Table 3].

Moreover, work experience had a significant relationship with job retention ($F = 1.22$, $P = 0.04$) [Table 3].

Based on the results, organizational commitment had no significant relationship with the gender ($P = 0.45$, $t = 0.74$), marital status ($P = 0.16$, $t = 1.39$), shift type ($P = 0.84$, $t = -0.19$), and level of education ($P = 0.38$, $t = -0.88$) [Table 4].

Moreover, it was found that work experience had a significant correlation with organizational commitment ($P = 0.04$, F = 2.89) [Table 4].

Table 1: Demographic characteristics of the participants

Variable	*n* (proportion %), 95% CI
Gender	
Female	85 (49.42), 41.76-57.11
Male	87 (50.58), 42.89-58.24
Marital status	
Single	38 (22.09), 16.28-29.17
Married	134 (77.91), 70.83-83.72
Level of education	
Undergraduate	154 (89.53), 83.72-93.50
Postgraduate	18 (10.47), 6.50-16.28
Shifts	
Fixed	102 (59.30), 51.54-66.64
Rotating	70 (40.70), 33.36-48.46
Work experience (years)	
0-10	65 (37.79), 30.61-45.52
11-20	59 (34.30), 27.35-41.97
21-30	48 (27.91), 21.48-35.34

CI: Confidence interval

Table 2: Correlation coefficient between job retention and organizational commitment

	r	*P*
Affective commitment	0.278	0.001
Continuance commitment	0.222	0.004
Normative commitment	0.244	0.001
Organizational commitment	0.337	0.001

Linear regression analysis showed that work experience was the only parameter which had a significant effect on both organizational commitment ($P = 0.01$, $\beta = 0.28$) and job retention ($P = 0.02$, $\beta = 0.10$) [Table 5].

DISCUSSION

According to the findings, job retention is correlated significantly with organizational commitment and its subscales during the COVID-19 pandemic. Gender, marital status, level of education, and having fixed or rotating shifts had no significant relationship with job retention and organization commitment, and the only influencing factor was work experience, which showed a significant positive influence on both variables.

In this study, the mean of job retention expressed a moderate tendency to persist. This is quite similar to the results of previous studies regarding the tendency to job retention in nonepidemic conditions.[32] The mean of job retention reported in the study performed by Nikpey *et al*.[33] revealed a similar tendency to stay. Even though it is expected that factors, such as fear of infection, increased workload, longer working hours, more stressful working environment, and insufficient medical and protective materials, reduce the tendency of nurses to stay in the hospital during a pandemic, it seems having relatively high organizational commitment among our subjects leads to relatively high tendency to stay despite these problems.

Similar to job retention, organizational commitment was also at the moderate level and comparable to nonepidemic conditions.[18,33,34] This shows that despite the COVID-19 pandemic, nurses have maintained their organizational commitment to the hospital. Similar to our findings, the level of professional commitment of the nurses in a Turkish state hospital during the COVID-19 was above average level.[35] Moreover, Akbari *et al*. in the study of organizational commitment of nurses working in selected hospitals of Tehran University of Medical Sciences in 2011 reported approximately the same results.[22] Many other studies had been conducted in different hospitals in Iran and other countries, which mostly reported the moderate organizational commitment for their staff.[17-22] However, slight differences between the results of various studies can be attributed to difference in factors such as recruitment status, position, working experience, income, and other demographic and organizational differences. The positive and significant correlation between organizational commitment and its subscales with the tendency to job retention indicates that the higher commitment to the system is associated with higher job retention in nurses which is consistent with the results of similar studies.[36-38]

Among the subscales of organizational commitment, affective commitment not only had the highest score but also showed the highest correlation with job retention. This indicates that nurses were more committed to the hospital during the pandemic due to affective relationships with other colleagues and physicians. Previous studies showed contradictory results in this regard.[22,34,39-41] However, similar to our study, affective commitment was the predominant commitment of nurses in some of previous studies.[34,39,41] Differences in leadership strategies, human resource management, the quality of nurses' relationships with supervisors, and hospital officials in different settings can be attributed for the difference between previous studies.

In this study, shift type had no relationship with the desire for job retention and organizational commitment; however, in a study conducted by Zahedi *et al*., the tendency to leave the service was higher among nurses with rotating and night shifts.[34] This contradictory results demonstrate that personal factors related to the work/home interface are strongly related to staying in the profession as opposed to the job or organization. Studies performed on the relationship between gender and the tendency to job retention have led to very contradictory results.[4,42-44] Khajehmahmood *et al*. found a lower tendency to job retention in males, compared to females,[44] while based on the results of some other studies, females leave their jobs more than males.[4,43] Moreover, according to the results of a study carried out in Italy, females were more afraid of the pandemic than males which could affect their stress and cognitive problems and reduce their tendency to stay.[45] Moreover, some caution should be exercised in interpretation of the results as the number of specific gender participants may inappropriately represent the findings. However, in this study, in line with the results of Al Haroon *et al*. and Arbabisarjou *et al*., no difference was found between two genders in this regard.[14,18] More study is needed in pandemic conditions to compare the results.

In this research, similar to some of the previous studies,[22] marital status was not significantly associated with commitment and tendency to job retention. Even though according to Jackson *et al*., married nurses were

Table 3: Relationship of job retention with gender, marital status, shift, education, and work experience

	Job retention, mean±SD (95% CI)	Statistical test	*P*
Gender			
Female	37.05±3.34 (36.54-37.95)	*T*=−1.41	0.15
Male	37.78±3.38 (37.27-38.28)		
Marital status			
Single	37.75±3.57 (37.37-38.13)	*T*=0.66	0.50
Married	37.33±3.32 (37.15-37.51)		
Shift			
Fixed	37.55±3.35 (37.37-37.73)	*T*=0.57	0.56
Rotating	37.24±3.42 (37.01-37.47)		
Education			
Undergraduate	37.32±3.34 (36.99-37.65)	*T*=−1.23	0.21
Postgraduate	38.42±3.38 (37.34-39.50)		
Work experience (years)			
0-10	38.62±3.57 (38.04-39.20)	*F*=1.22	0.04
11-20	37.88±2.96 (36.77-38.99)		
21-30	36.96±3.03 (36.35-37.57)		
Total	37.70±3.35		

T: The test statistic for an independent samples *t*-test, *F*: F-statistics in a one-way ANOVA *F*-test. SD: Standard deviation, CI: Confidence interval

Table 4: Relationship of organizational commitment with gender, marital status, shift, education, and work experience

	Organizational commitment, mean±SD (95% CI)	Statistical test	*P*
Gender			
Female	74.45±7.37 (73.85-75.04)	*T*=0.74	0.45
Male	73.56±8.07 (72.91-74.20)		
Marital status			
Single	75.56±8.42 (73.64-77.47)	*T*=1.39	0.16
Married	73.57±7.49 (72.68-74.45)		
Shift			
Fixed	73.91±8.15 (73.75-74.06)	*T*=−0.19	0.84
Rotating	74.14±7.09 (73.97-74.30)		
Education			
Undergraduate	73.83±7.77 (73.28-74.37)	*T*=−0.88	0.38
Postgraduate	75.62±7.24 (74.02-77.21)		
Work experience (years)			
0-10	72.08±7.94 (68.84-75.31)	*F*=2.89	0.04
11-20	75.43±8.36 (71.57-79.33)		
21-30	77.36±8.91 (69.62-85.10)		
Total	75.96±8.37		

T: The test statistic for an Independent samples *t*-test, *F*: F-statistics in a one-way ANOVA *F*-test. SD: Standard deviation, CI: Confidence interval

Table 5: Results of linear regression analysis to investigate effect of evaluated factors on organizational commitment and job retention

	Organizational commitment		Job retention	
	Coefficient (95% CI)	*P*	Coefficient (95% CI)	*P*
Work experience	0.25 (0.10-0.38)	0.01	0.22 (0.07-0.35)	0.02
Gender	0.00 (0.30-0.14)	0.94	0.33 (0.19-0.45)	0.33
Marital statuses	0.16 (0.01-0.30)	0.11	0.89 (0.85-0.91)	0.89
Level of education	0.06 (−0.09-0.20)	0.49	0.74 (0.36-0.59)	0.74
Shift	0.10 (−0.05-0.24)	0.33	0.37 (0.23-0.49)	0.37

CI: Confidence interval

very cautious in following health protocols due to the fear of transmitting the virus to their family members.[12] In the present study, the fear of disease transmission did not lead to a decrease in organizational commitment or willingness to leave work among nurses. Moreover, a significant positive relationship between job retention and marital status in some other studies could be due to economic issues.[33] On the other hand, there are studies that showed a negative relationship between marital status and organizational commitment so that single nurses had a higher organizational commitment.[46,47] The observed differences may be due to different research environments and common social and cultural differences.

In the present study, similar to some of the previous studies, age also had no significant relationship with commitment and tendency to job retention during the COVID-19 pandemic. However, there is conflicting evidence in

nonepidemic conditions about the relationship between age and the tendency to leave the job.[4,14,44,48-52] Based on the results, education level also had no significant relationship with commitment and tendency to job retention during the COVID-19 pandemic. Moreover, the findings of other studies about this issue are contradictory.[4,29,41]

The significant relationship among work experience, organizational commitment, and the tendency to job retention during the COVID-19 pandemic in our research has also been highlighted in other studies.[22,53,54] Salminen states that about half of young nurses tend to leave their profession, and most nurses leave their jobs during the first 2 years of their employment.[54] In another study, it was found that the highest dismissal rate occurs in the 1st year of employment, and employees who leave the organization usually have a low work experience.[53] Moreover, the ability of low experienced nurses to cope with pressures and stress is lower than those with more working experience; therefore, their willingness to get out of this situation and to leave work will increase.[55,56] Despite the fact that the increase of fear, stress, and anxiety during COVID-19 has been confirmed in other studies,[13,57,58] our findings indicate that nurses with a higher experience were less stressed with the onset of the COVID-19 pandemic and had a more significant commitment and persistence. The positive relationship between work experience, organizational commitment, and the tendency to job retention is noteworthy in two ways: firstly, the interest, dependence, and desire to stay naturally increase over the years. Secondly, personnel with higher work experience find themselves on the verge of retirement and have no motivation to start serving in a new place.

It can be said that experienced nurses can increase affective commitment and create a better working environment with other nurses to reduce the level of pressure and stress in COVID-19 wards. Since the COVID-19 pandemic has been a new experience for nurses in Iran, it is suggested to perform qualitative studies in the future to identify some of the hidden variables regarding the tendency to job retention.

Our study had some limitations: we did not consider employment status, position, and monthly income of our subjects, which might have a major effect on evaluated factors. Having dependent children was another important factor that should have been considered. Moreover, even though we tried to convince all nurses to participate in our study, we received positive response from a little more than half of the employed nurses. The other limitation of this study is that it was a mono-center study, and it would have been better to survey the employed nurses in other Mazandaran University of Medical Sciences hospitals to compare the results and evaluate the effect of other confounding factors such as hospital bed capacity, hospital level, hospital category, and management strategies of the officials.

CONCLUSION

Among the demographic and organizational variables, only work experience had a significant relationship with job retention and organizational commitment during the COVID-19 pandemic. In other words, experienced nurses are more committed to the organization and less inclined to leave the service.

Conflicts of interest

There are no conflicts of interest.

Authors' contribution

All authors contributed to the design and implementation of the research, to the analysis of the results and to the writing of the manuscript.

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