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## RESEARCH ARTICLE

# Retaining nurses via organizational support and pay during COVID-19 pandemic: The moderating effect between intrinsic and extrinsic incentives

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## Abstract

**Aim:** There has been growing concern about the nurses' turnover intention as well as life satisfaction during COVID-19 pandemic in Iran. The past research has provided evidence on the effect of organizational support on nurses' job satisfaction and turnover intention. However, little is known about the underlying mechanism behind these associations.

**Design:** A cross-sectional survey was undertaken.

**Methods:** An online survey was conducted in Iran from May to June 2020 through Google Docs Forms. In total, 305 nurses were participated and completed the online survey. Data were analysed using structural equation modelling through (AMOS). This study was checked with the STROBE checklist.

**Result:** The results showed that nurses' perception of organizational support was positively related to their job satisfaction which in turn decreases the turnover intention. Likewise, the job satisfaction partially mediated the relationship between organizational support and nurses' life satisfaction.

## KEYWORDS

COVID-19 pandemic, intrinsic and extrinsic incentives, organizational support, retaining nurse

## 1 | INTRODUCTION

The World Health Organization (WHO) declared COVID-19 a pandemic on 11 March 2020. Iran was one of the most severely affected countries with around 50,000 new cases reported daily at its peak (World Health Organization, 2022). Job demands are notoriously high for nursing, and the outbreak of COVID-19 overstretched nurses in Iran given the limited resources and manpower (Mirzaei et al., 2021). Nurses were working under unprecedentedly challenging conditions: heavy workload, high risk of infection, insufficient

protective gears; some nurses are quitting or considering quitting this profession (Ahmadi, 2021; Mirzaei et al., 2021; Pourteimour et al., 2021). nurses experience many stressors while working in the environments with high job stress, inadequate resources that adversely affect their intention to care for patients with COVID-19 (Sharif Nia, Arslan, et al., 2021).

Retaining healthcare workers is an important research topic across countries given the worldwide prevalence of the nursing shortage. Extant research suggests that the nursing practice environment, consists of a bundle of organizational factors and plays a

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vital role in retaining nurses (Van Bogaert & Clarke, 2018). Examples of such factors are high performing work system in Australia (Baird et al., 2019; Holland et al., 2019) and in the Netherlands (Boselie, 2010), job control and rewards in Canada (Trépanier et al., 2020), nurse–physician relationships, unit-level management and hospital-level support in Belgium (Van Bogaert et al., 2014). Particularly, a meta-analysis summarizing 106 empirical studies has shown organizational support and recognition are among the top antecedents of turnover intention (Nei et al., 2015).

The intention to leave an organization is a dynamic motivational process driven by extrinsic and intrinsic factors. Nevertheless, the literature globally tends to focus on factors addressing intrinsic needs such as autonomy, control and nurse–physician relationships in the Nursing Work Index (Dutra & Guirardello, 2021; Pursio et al., 2021). Massive evidence addressing intrinsic factors, one omnipresent extrinsic factor that is often, overlooked is pay. Economists suggest there are crowding in/out effects between intrinsic and extrinsic factors (Drews et al., 2020). The economic theory of “crowding out” which has been integrated in the psychology of motivation suggest that providing extrinsic motivation (monetary pay) can undermine the intrinsic motives for performing a behaviour (Marsiglio & Tolotti, 2020). Contrarily, the “crowding in” stipulates those monetary incentives may increase the supply of effort (extrinsic motivation) (Frey, 2012). However, this process is yet to be tested in the nursing literature.

Additionally, the evidence on nursing turnover is scarce and patchy in Iran. A few studies have identified organizational justice, occupation stress and job security (Ahmadi Chenari et al., 2020; Sokhanvar et al., 2018; Tourani et al., 2016). As important antecedents to turnover in Iran, the contextual factors that impact job turnover is unclear. In the study has empirically tested the relationship between organizational support and job satisfaction, but they did not incorporate turnover in their model (Pahlevan Sharif et al., 2018).

Integrating motivation theories, we propose competing hypotheses on the moderating role of pay satisfaction: it may reinforce or buffer the effect of organizational support on nursing turnover intention. This process is mediated by job satisfaction. We conducted a cross-sectional survey of 305 nurses in Iran to test the hypotheses. This study has extended the nursing literature with empirical evidence in Iran and fills a gap in the literature about the modifying effect between intrinsic and extrinsic motivation.

Theoretical background and hypothesis development.

## 1.1 | Organizational support and nursing turnover

Research on nursing turnover can be traced back to the study of original Magnet hospitals in 1983 in the United States.<sup>1</sup> Researchers were intrigued by the observation that some hospitals managed to attract and retain qualified nurses despite perennial and pervasive nursing shortage. The interviews with leaders and nurses identified staffing adequacy, supportive leadership together with top-down strategy communication effectiveness are salient organizational

attributes differed from what they coined “Magnet hospitals” compared with non-Magnet hospitals.

The original Magnet study has spawned numerous studies to uncover various antecedents of nursing turnover (Van Bogaert & Clarke, 2018). Some established antecedents are nursing practice environment, authentic leadership and organizational empowerment (Christopher et al., 2018; Laschinger et al., 2015; Lee et al., 2019). Prior studies have also linked these constructs to nursing outcomes beyond turnover such as job satisfaction, burnout, engagement, quality of care and patient safety (Aloisio et al., 2018; Boamah et al., 2018; Dirik & Intepeler, 2017; Li et al., 2018; Sharif Nia, Pahlevan Sharif, et al., 2021). Particularly, the nursing practice environment, and a bundle of factors that provide a context for nurses' work, has emerged as a central construct. The evolution of this inquiry is accompanied with the development of a reliable and valid scale to measure such nursing practice environments (Elmi et al., 2017; Norman & Sjetne, 2017). Organizational support, a sub-scale of nursing work index, has emerged as a salient antecedent of nurse turnover (Li et al., 2019). This scale captures a set of core attributes of a supportive work environment consisting of staffing adequacy, nurse autonomy, nurse control and nurse–physical relationships (Pahlevan Sharif et al., 2018; Pahlevan Sharif et al., 2021). The literature has amassed abundant evidence on the relationship between organizational support and nursing turnover, synthesizing 106 quantitative studies has concluded that organizational support is key to nursing turnover (Nei et al., 2015).

Despite the consistency in empirical evidence, the theory on the mechanism-underlying turnover or nursing outcomes in general seems to be quite heterogeneous. Price and Mueller (1981) conceptualized and validated turnover as a product of job satisfaction and commitment model. Drawing on the burnout model and empirical evidence, Van Bogaert and Clarke (2018) postulate work engagement and burnout are important mediators that link nursing work environment to nurse outcomes. Meanwhile, researchers have explicated that the scale nursing work index was built on the need fulfillment theory (Holland et al., 2019; Van Bogaert et al., 2014).

Regardless of the idiosyncratic notions and theorization, a common theme emerges in the literature: nurses' psychosocial experiences of their work environment are essential to all nursing outcomes in various conditions and contexts. By this logic, the work environment needs to provide nurses with stimulus that induce pleasant and fulfilling psychosocial experiences to engender the desired nurse outcomes.

## 1.2 | Unpack organizational support via self-determination theory

Self-determination theory (SDT) is a macro theory on motivation and well-being (Deci & Ryan, 2008a). It postulates that competence (a sense of self-efficacy and confidence), autonomy (feeling of freedom and control) and relatedness (a sense of belonging and connectedness) are universal innate needs to all human beings (Deci &

Ryan, 2008b). The satisfaction of the three needs is the prerequisite of human well-being and performance, and the frustration concerning these needs would cause psychological disorders and poor performance (Weinstein & Ryan, 2011). Evidence across settings and cultures has consistently supported this proposition (Gomez-Baya & Lucia-Casademunt, 2018; Ng et al., 2012; Ryan & Deci, 2020; Van den Broeck et al., 2016).

Reflecting on the conceptualisation and operationalisation of organizational support and SDT, we argue the interaction of the four components in organizational support would create a work environment that facilitates the satisfaction of nurses' basic psychological needs. Namely, competences satisfied by staffing adequacy, autonomy by nurse autonomy and control and relatedness by nurse-physical relationships. Accordingly, organizational support would induce job satisfaction, a measure of well-being at work (Pahlevan Sharif et al., 2018) as well as life satisfaction a measure of overall well-being (Newman et al., 2015). Given the consistent evidence on the negative relationship between job satisfaction and turnover intention (Chen et al., 2015; Li et al., 2019; Zhao et al., 2018) and on the positive relationship between job satisfaction and life satisfaction (Bowling et al., 2010; Newman et al., 2015).

### 1.3 | The moderating role of pay satisfaction

For individual employees, pay is an important reward for work. Accordingly, for organizations, pay is an effective incentive to motivate employees to conform to the rules and perform effectively (Olafsen et al., 2015). A meta-analysis has shown pay is positively associated with job satisfaction (Judge et al., 2010). Using a sample of nurses have demonstrated that pay satisfaction is positively related to job satisfaction and negatively related to turnover intention (Wang et al., 2019).

The organizational context consists of various factors situated at different levels (e.g. organizational level and unit level) and of different nature (e.g. extrinsic vs intrinsic). Through the lens of SDT, organizational support, serves as a form of intrinsic reward to fulfil motives that arise in the individual, that is intrinsic motivation. Pay, on the other hand, is a form of extrinsic reward to satisfy motives deriving from outside the individual, that is extrinsic motivation.

Building on laboratory experiments and further substantiated by a meta-analysis, SDT postulates extrinsic (monetary) rewards can undermine intrinsic motivation due to their controlling effect. The individuals perform a task for the rewards instead of enjoying/appreciating the task itself (Malek et al., 2020). However, this view is not without controversy. Cameron and Pierce concluded from in their meta-analyses of 96 experimental studies that the undermining effect was minimal and largely inconsequential in the educational setting (Cameron & Pierce, 1994). Integrating psychological and economic theories in form of motivation crowding theory argues that there is a crowding effect between extrinsic and intrinsic rewards. Extrinsic rewards can undermine (crowding-out) as well as strengthen (crowding-in) intrinsic motivation depending on the psychological

processes that extrinsic rewards induce (Legault, 2020). Specifically, it is crowding-out the effect if the extrinsic rewards impair self-determination and self-esteem. Conversely, it is a crowding-in effect if the extrinsic rewards support the satisfaction of intrinsic needs. Building on above reasoning, we propose the following hypotheses.

We hypothesize the following:

- H1 Organizational support is negatively related to nurses' turnover intention.
- H2 Organizational support is positively related to nurses' life satisfaction.
- H3 Job satisfaction mediates the relationship between organizational support and nurses' turnover intention.
- H4 Job satisfaction mediates the relationship between organizational support and nurses' life satisfaction.
- H5 Pay satisfaction moderates the relationship between organizational support and job satisfaction.

## 2 | METHODS

This study used a cross-sectional design to test the above hypothesis. An online survey was conducted in Iran from May to June through Google Docs Forms. An online self-administered questionnaire consisted of two main sections to collect the data. Participants were asked about their gender, age and work experience in this hospital in section one. Second section included items to measure respondents' organizational support, pay satisfaction, job satisfaction, turnover intention and life satisfaction. The questionnaire was translated from English-Persian using the World Health Organization protocol of forward-backward technique.

### 2.1 | Participants

The participants of this study were nurses who worked in two public hospitals in Iran using the convenience sample technique. The inclusion criteria for selecting the participants in this study were (1) more than 6 months of working experiences as a nurse, (2) a willingness to participate in this research. To avoid the type I and type II error, this study used the priori sample size estimation to determine the minimum sample size required (Beck, 2013). Based on the 3 latent variables, 18 observed variables, power level of .8, a probability level of .05 and effect size of .2 (Cohen et al., 2013), the minimum sample required for this study was 296. In total, 305 nurses completed the questionnaire and fulfilled the inclusion criteria of this research. The sample of this study consisted of 192 (63.0%) females and 113 (37.0%) males, with a mean age of 36.6 ( $SD = 8.1$ ) years. Nurses in this study had worked as nurse on average 14.1 years ( $SD = 7.8$ ).

The details of the participants' demographic profiles are shown in [Table 1](#).

## 2.2 | Instruments

### 2.2.1 | Organization support

This study used a nine-item Organization support subscale (Aiken et al., 2002) to measure organization support for nurses (e.g. "Adequate support services allow me to spend time with my patients."). Each item was recorded on a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). The items are named as "organizational support 1 to 7."

### 2.2.2 | Pay satisfaction

We adopted a four-item Pay Satisfaction Scale (Heneman III & Schwab, 1985) that was refined by De Gieter et al. (2010) particular for nurses (e.g. "I am satisfied with my take-home pay"). The respondents were asked to respond on a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree).

### 2.2.3 | Job satisfaction

To measure job satisfaction, nurses were asked to report on a single question (Lucas & Brent Donnellan, 2012) "All things considered, how satisfied are you with your job as a whole?" on a seven-point Likert scale ranging from 1 (completely dissatisfied) to 7 (completely satisfied).

### 2.2.4 | Turnover intention

This study used a three-item scale developed by Tepper et al. (2009) to measure nurses' turnover intention. (e.g. "I expect to change jobs in the next few months"). The participants responded on a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree).

### 2.2.5 | Life satisfaction

Life satisfaction was measured using a single item (Lucas & Brent Donnellan, 2012). Respondents were asked: "All things considered, how satisfied are you with your life as a whole?" Responses were recorded on a 7-point scale ranging from 1 (completely dissatisfied) to 7 (completely satisfied).

## 2.3 | Face and content validity assessment of the instrument

To access the qualitative face validity and content validity, the translated version of all the constructs in the questionnaire were given to 10 experts in the field of medical care to review and comment on the appropriateness, relevance, difficulty and ambiguity of the items in all constructs. They were also asked to comment on the wording, items allocation and understandability of the sentences and items.

## 2.4 | Pilot test

A pilot test was conducted to ensure the understandability of the questionnaire and to evaluate the internal consistency of the latent

Variable	N (%)	Variable	N (%)
<b>Gender</b>		<b>Employment status</b>	
Male	192 (63.0)	Full-time	292 (95.7)
Female	113 (37.0)	Part-time	13 (4.3)
<b>Marital status</b>		<b>Department</b>	
Single	112 (36.7)	General	66 (21.7)
Married	181 (59.3)	Surgical	26 (8.5)
Divorced	6 (2.0)	CCU, ICU	71 (23.3)
Widow	6 (2.0)	Emergency	72 (23.6)
<b>Education level</b>		Paediatric	19 (6.2)
Blow Diploma	5 (1.6)	Orthopaedic	9 (3.0)
Diploma/Postdiploma	3 (1.0)	Hearth	12 (3.9)
Undergraduate	217 (71.1)	Maternity	30 (9.8)
Postgraduate	80 (26.2)	<b>Continues variable</b>	<b>Mean (SD)</b>
<b>Employment type</b>		Age (year)	36.6 (8.1)
Permeant	180 (59.0)	Working Hours (week)	58.1 (14.9)
Contract-based	125 (41.0)	Working as Nursing (year)	14.1 (7.8)

**TABLE 1** Demographic profiles of the participants (N = 305)

construct in the Persian version of the questionnaire. The online survey was distributed to a WhatsApp group for nurses, a total of 35 completed sample were obtained. Using SPSS version 26, reliability analysis was conducted for each latent construct. The results showed that all constructs Cronbach's alpha was  $>.7$  (Organization support: .912, pay satisfaction: .967, and turnover intention: .926), demonstrating good internal consistency. Moreover, in the pilot test process, we did not receive further qualitative comments to improve the Persian version of the questionnaire.

## 2.5 | Data analysis

To test the validity of the latent variables, this study randomly split up the data set into two to be used in exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). The EFA was performed through maximum likelihood with Promax rotation on the first data set ( $N = 153$ ) using SPSS version 26. The Kaiser–Meyer–Olkin (KMO) and the Bartlett test of sphericity was employed to ensure the appropriateness of the sample to perform the factor analysis. Items with absolute loading below .5 were eliminated. The maximum likelihood CFA was conducted using the factor structure obtained from EFA on the second data set ( $N = 152$ ) using Analysis of Moment Structure (AMOS) software version 26. The model fit was assessed using several model fit indexes, and the model was revised according to the modification indices (Pahlevan Sharif & Sharif Nia, 2018). The internal consistency of each construct was assessed using its Cronbach's alpha. Construct reliability was assessed using composite reliability (CR) and maximal reliability (Max R). The convergent validity was assessed through CR and average variance extracted (AVE) of the latent constructs. CR  $>.7$  and AVE  $>.5$  indicate good convergent validity (Pahlevan Sharif & Sharif Nia, 2018). To establish discriminant validity, square root of AVE of each construct should be larger than its correlation with other constructs (Fornell & Larcker, 1981). Moreover, the discriminant validity was also assessed through Heterotrait-monotrait ratio of correlation (HTMT) matrix with values  $<.85$  (Henseler et al., 2015). Once the measurement model achieved all the assessment criteria; the constructs were replaced by their latent variable score using an imputation technique. Next, the partial correlation analysis was conducted to examine the correlation among the constructs by including control variables. To test the hypotheses in the structural model, the bootstrapping with 2,000 replications was performed (Pahlevan Sharif & Sharif Nia, 2018). Moreover, this study used the interaction effects to assess the moderation effect in the structural model. All tests in this study were two-tailed, and  $p$  value  $<.05$  was considered statistically significant.

## 3 | RESULTS

Table 2 shows the results of the descriptive statistics of the variables used in this study. Absolute values for skewness and kurtosis of

each item of  $<7$  and 3, respectively, indicated normality of the data (Sinval et al., 2021). This study initially conducted the maximum likelihood EFA with Promax rotation on the first dataset ( $N = 153$ ). The KMO was .896, and the Bartlett test of sphericity was statistically significant ( $p <.001$ , 2,129.175,  $df = 120$ ) indicating that the sampling was adequate. All items' absolute loadings were  $>.5$ . Next, the maximum likelihood CFA was conducted using the second dataset ( $N = 152$ ) to validate the results obtained from the EFA. By following the modification indices, three pairs of the items' measurement errors (between organization support 2 and 4, organization support 2 and 8, and organization support 6 and 9) were allowed to freely covary to improve the measurement model. The revised measurement model was found to be a good fit, as evidenced by goodness-of-fit indices [ $\chi^2(98) = 161.926$ ,  $p <.001$ ,  $\chi^2/df = 1.652$ , goodness-of-fit index (GFI) = .901, comparative fit index (CFI) = .964, incremental fit index (IFI) = .965, Tucker–Lewis Index (TLI) = .956, normed fit index (NFI) = .915, standardized root mean square residual (SRMR) = .053 and root mean square error of approximation (RMSEA) (90% confidence interval [CI]) = .066 (.047–.083)], and all factor loadings were statistically significant and  $>.5$ . As shown in Table 1, all constructs in the measurement model demonstrated a high level of internal consistency (Cronbach's alpha ranged from .889–.946) and reliability (CR ranged from .880–.940 and maximal reliability ranged from .890–.980). Moreover, The AVE of the constructs ranged from .453–.800, in which AVE of organization support was  $<.5$ . Since AVE is too conservative in nature; hence, this study used CR  $>.7$  and greater than the respective AVE indicate of good convergent validity (She et al., 2021). Lastly, as shown in Table 2, the square root of AVE of each construct was greater than its correlation with other constructs, and all values of the HTMT matrix were  $<.85$  indicated good discriminant validity.

This study also tested the partial correlations among variables when controlling age, gender and work department in the hospital. As shown in Table 3, the results of the partial correlation analysis demonstrated that organization support was significantly correlated with all other variables. It is positively correlated with pay satisfaction, job satisfaction, life satisfaction and negatively correlated with turnover intention. Importantly, pay satisfaction was significantly correlated with job satisfaction, life satisfaction and negatively correlated with turnover intention. Job satisfaction was significantly correlated with life satisfaction and negatively correlated with turnover intention. In addition, life satisfaction was negatively correlated with turnover intention.

Next, the structural model was established, and the proposed hypotheses were tested while controlling for the effect of respondents' age, gender and work department in the hospital. The structural model showed a good fit [ $\chi^2(2) = 3.279$ ,  $\chi^2/df = 1.640$ , GFI = .998, CFI = .999, IFI = .999, TLI = .983, SRMR = .010, RASEA = .046]. The results of assessing the total effect model indicated that there was a significantly negative effect of organization support on turnover intention ( $\beta = -.481$ ,  $p <.001$ ) and significantly positive effect of organization support on life satisfaction ( $\beta = .194$ ,  $p <.001$ ) showed support for H1 and H2.

TABLE 2 Descriptive statistics of the items/constructs

Construct/item	N	M	SD	Min	Max	Skewness	Kurtosis
Organizational support							
Item 1	305	3.36	1.37	1	7	.18	-.31
Item 2	305	4.26	1.46	1	7	-.02	-.43
Item 3	305	3.04	1.39	1	7	.46	.01
Item 4	305	3.67	1.48	1	7	.27	-.36
Item 5	305	3.12	1.55	1	7	.22	-.70
Item 6	305	2.96	1.34	1	7	.26	-.57
Item 7	305	3.62	1.46	1	7	.09	-.37
Item 8	305	3.92	1.44	1	7	-.09	-.21
Item 9	305	3.40	1.50	1	7	.14	-.51
Pay satisfaction							
Item 1	305	3.74	1.79	1	7	.01	-1.01
Item 2	305	3.02	1.76	1	7	.52	-.89
Item 3	305	2.89	1.75	1	7	.59	-.87
Item 4	305	2.77	1.72	1	7	.72	-.66
Job satisfaction							
	305	3.78	1.68	1	7	.06	-.93
Turnover intention							
Item 1	305	3.54	2.29	1	7	.24	-1.44
Item 2	305	3.35	2.24	1	7	.29	-1.45
Item 3	305	3.64	2.42	1	7	.18	-1.61
Life satisfaction							
	305	5.04	1.59	1	7	-.74	-.13

Additionally, this study used a bootstrapping approach to assess the mediation effect on the model. The results of assessing the direct effects of the mediation model showed statistically significant positive associations between organization support and job satisfaction ( $\beta = .408, p < .001$ ), job satisfaction and turnover intention ( $\beta = -.454, p < 0.001$ ) and job satisfaction and life satisfaction ( $\beta = .474, p < 0.001$ ). Testing the indirect relationships revealed negative indirect effects between organization support and turnover intention ( $\beta = -.185, p < .001$ ) and organization support and life satisfaction ( $\beta = .193, p < .001$ ) which support H3 and H4. Moreover, the statistically significant association between organization support and turnover intention in the mediation model ( $\beta = .211, p < .001$ ) indicated that job satisfaction partially mediates the relationship between organization support and turnover intention. A non-significant association between organization support and life satisfaction in the mediation model ( $\beta = .001, p = .972$ ) indicated that job satisfaction fully mediates the relationship between organization support and life satisfaction. Lastly, the results of interaction effect failed to support the moderation role of pay satisfaction ( $\beta = -.057, p = .161$ ) on the relationship between organization support and job satisfaction (H5). The model explained 58.80% of the variance of job satisfaction, 56.50% of the variance of turnover intention and 46.80% of the variance of life satisfaction. Table 4 and Figure 1 show the results of the structural model assessment.

## 4 | DISCUSSION

The current study endeavours to pursue the mechanism of relationship between organizational support and nurses' turnover intention as well as organizational support and nurses' life satisfaction during COVID-19 pandemic. Due to the shortage of competent and committed nurses during the current pandemic, turnover intention among nurses which has turned as a growing challenge to the health sector deserves further investigation. The yielded results showed that there is a negative relationship between organizational support and turnover intention of nurses in Iran (H1). Likewise, receiving the organization support in the time of hardship would increase the life satisfaction among nurses (H2).

According to the presented results in Table 4, higher organization support has shown an increase in job satisfaction which decreases the turnover intention among nurses (H3). These findings indicate that lack of perceived job satisfaction introduced as lack "emotional behaviour" or "feeling of fulfilment" (Sutanto & Gunawan, 2013; Takata & Ramli, 2020) is a major motivational determinant for turnover intentions among nurses. In addition, the less conducive working environment is the responsibility of the organization which has both direct and indirect effect on turnover intention of nurses especially during the COVID-19 pandemic (Tables 5 and 6).

In other words, these findings affirm the mediation role of job satisfaction between organizational support and turnover intention.

TABLE 3 Measurement model assessment

Constructs/items	Factor loading	$\alpha$	CR	AVE	MSV	Maximal reliability
Organizational support		.889	.880	.453	.449	.890
1: Adequate support services allow me to spend time with my patients	.743 <sup>***</sup>					
2: Physicians and nurses have good working relationships	.553 <sup>***</sup>					
3: Nursing controls its own practice	.642 <sup>***</sup>					
4: Enough time and opportunity to discuss patient care problems with other nurses	.692 <sup>***</sup>					
5: Enough registered nurses to provide quality patient care	.720 <sup>***</sup>					
6: Freedom to make important patient care and work decisions	.765 <sup>***</sup>					
7: Not being placed in a position of having to do things that are against my nursing judgement	.666 <sup>***</sup>					
8: Much teamwork between nurses and doctors	.686 <sup>***</sup>					
9: Patient assignments foster continuity of care (i.e. the same nurse cares for the patient from 1 day to the next)	.642 <sup>***</sup>					
Pay satisfaction		.946	.940	.800	.449	.980
1: I am satisfied with my take-home pay	.733 <sup>***</sup>					
2: I am satisfied with my current salary	.940 <sup>***</sup>					
3: I am satisfied with my overall level of pay	.977 <sup>***</sup>					
4: I am satisfied with the size of my current salary	.963 <sup>***</sup>					
Turnover intention		.925	.918	.789	.291	.946
1: I plan on leaving this organization very soon	.830 <sup>***</sup>					
2: I expect to change jobs in the next few months	.958 <sup>***</sup>					
3: I will look to change jobs very soon	.918 <sup>***</sup>					

Abbreviations:  $\alpha$ , Cronbach's alpha; AVE, average variance extracted; CR, composite reliability; MSV, maximum shared square variance.

\*\*\* $p < .001$ .

TABLE 4 Discriminant validity assessment using the Fornell-Larcker criterion and HTMT matrix

		Organizational support	Pay satisfaction	Turnover intention
Fornell-Larcker criterion	Organizational support	.681		
	Pay satisfaction	.631 <sup>***</sup>	.909	
	Turnover intention	-.607 <sup>***</sup>	-.573 <sup>***</sup>	.903
Heterotrait-monotrait ratio of correlations (HTMT)	Organizational support			
	Pay satisfaction	.621		
	Turnover intention	.648	.590	

\*\*\* $p < .001$ .

The similar role for job satisfaction has been presented between organizational support and life satisfaction among nurses in Iran. It corroborates the findings of Takata and Ramli (2020) confirming turnover intentions due to lack of job satisfaction and inadequate organizational perceived support (poor working environment) in health service. Moreover, consistent with theory of social exchange and organizational supports (Pahlevan Sharif et al., 2018; Van Bogaert

et al., 2014) stated that individual ability to work in any environment depend on the exchange process whereby hazards and benefits are considered first. During COVID-19 pandemic in Iran, perceiving organizational support, that is number of medical personnel, nurse friendly policies and the supportive relationship among peers would contribute to job satisfaction among nurses which in turn not only increases the life satisfaction but also decreases the turnover.



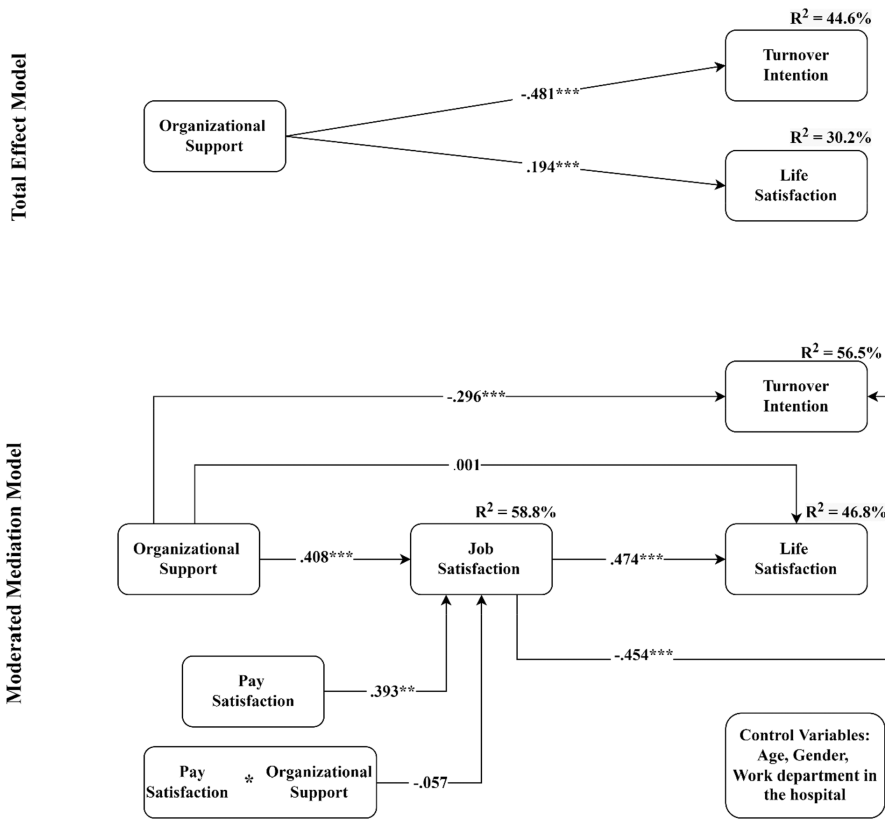


FIGURE 1 Results of the structural model assessment

Variables	[2]	[3]	[4]	[5]
[1] organizational support	.656***	.663**	.449***	-.641***
[2] Pay satisfaction		.647***	.512***	-.563***
[3] Job satisfaction			.605***	-.688***
[4] Life satisfaction				-.339***
[5] Turnover intention				

TABLE 5 Results of correlation analysis, controlled for the effects of age, gender and work department in the hospital

\*\*\* $p < .001$ .

Lastly, the results of structural model assessment did not show any statistically significant relationship between simultaneous effect of supportive environment and pay satisfaction and job satisfaction. In other words, current study failed to provide any moderating role for pay satisfaction on the relationship between organizational support and job satisfaction (H5). The probable interpretation for the insignificant moderating effect of pay satisfaction can refer to the fact that from nurses' point of view who are risking their lives during the current pandemic, the monetary incentives have little value. We may further infer that for the nurses who are committed to their role, the unprecedented pressure of the pandemic cannot be rewarded with monetary values. The current pandemic might be among the rare incidents that intrinsic motivation crowds out the extrinsic motivation in the context of healthcare nurses in Iran. Despite carrying the intense fear of being infected among nurses, organizational support remains the primary factor to increase nurses' life satisfaction and retain them in their service.

## 5 | CONCLUSION

This study was carried out to contribute to healthcare research on retaining nurses during COVID-19 pandemic in Iran. Hence, the findings of this study reveal that job satisfaction plays the mediating role between organizational support and nurses' life satisfaction. Likewise, organizational support can be instrumental in improving the job satisfaction and in turn would decrease the turnover intention. The interacting effects between extrinsic motivation (pay satisfaction) and organizational support did not turn significant in this study. Therefore, in the context of current pandemic, organizational support crowds out the pay satisfaction. Furthermore, the findings of this study support the theories of social exchange and organizational psychology that will help the management of the hospitals to highlight the importance of nurse friendly policies, creating supportive environments. To bring the needed stability to the healthcare system, organizational support is the key to reduce turnover

TABLE 6 Structural model assessment

Paths	Standardized path coefficients	95% confidence level (lower bound, upper bound)
<b>Total effect</b>		
Organizational support → Turnover intention	-.481 <sup>***</sup>	(-.566, -.383)
Organizational support → Life satisfaction	.194 <sup>***</sup>	(.106, .286)
<b>Direct effects</b>		
Organizational support → Job satisfaction	.408 <sup>***</sup>	(.315, .505)
Job satisfaction → Turnover intention	-.454 <sup>***</sup>	(-.555, -.346)
Job satisfaction → Life satisfaction	.474 <sup>***</sup>	(.357, .585)
Organizational support → Turnover intention	-.296 <sup>***</sup>	(-.391, -.204)
Organizational support → Life satisfaction	.001	(-.092, .090)
<b>Mediation effects</b>		
Organizational support → Job satisfaction → Turnover intention	-.185 <sup>***</sup>	(-.255, -.129)
Organizational support → Job satisfaction → Life satisfaction	.193 <sup>***</sup>	(.128, .256)
<b>Moderation effect</b>		
Organizational support * Pay satisfaction → Job satisfaction	-.057	(-.114, .009)
Pay satisfaction → Job satisfaction	.393 <sup>**</sup>	(.296, .487)

\*\*\* $p < .001$ , \*\* $p < .01$  Control variables: age, gender and work department in the hospital.

intention. The limitation of this study is that data was collected from nurses during COVID-19 pandemic, therefore, collecting and comparing data when there is no pandemic will give appropriate representation of intrinsic and extrinsic motivation of the nurses in future studies.

## 5.1 | Implications for nursing practice

The outbreak of COVID-19 overstretched nurses in Iran given the limited resources and manpower. Heavy workload, high risk of infection, insufficient protective gears; some nurses are quitting or considering quitting this profession. Retaining healthcare workers is one of the priorities for the healthcare industry given the high daily infection rate in Iran.

Higher organization support has shown an increase in job satisfaction which decreases the turnover intention among nurses. Less conducive working environment is the responsibility of the organization which has both direct and indirect effect on turnover intention of nurses especially during the COVID-19 pandemic.

The findings affirm the mediation role of job satisfaction between organizational support and turnover intention. The similar role for job satisfaction has been presented between organizational support and life satisfaction among nurses in Iran. The yielded results confirm the turnover intentions due to lack of job satisfaction and inadequate organizational perceived support (poor working environment) in health service. Current study failed to provide any

moderating role for pay satisfaction on the relationship between organizational support and job satisfaction. For the nurses who are risking their lives during the current pandemic, the monetary incentives have little value.

## AUTHOR CONTRIBUTIONS

All authors made a substantial contribution to writing of the paper draft and met the four criteria for authorship recommended by the International Committee of Medical Journal Editors.

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## CONFLICT OF INTEREST

There are no conflicts of interest by any of the authors of this study. All authors have participated in (a) conception and design or analysis and interpretation of the data; (b) drafting the article or revising it critically for important intellectual content; and (c) approval of the final version. This manuscript has not been submitted to, nor is under review at, another journal or other publishing venue. The authors have no affiliation with any organization with a direct or indirect financial interest in the subject matter discussed in the manuscript.

## ETHICAL APPROVAL

The study protocol was approved by the ethics committee of Mazandaran University of Medical Sciences, Iran. The ethics code

is IR.MAZUMS.REC.1399.7288 which is obtained on 4 April 2020. Informed written consent was provided to all participants and they are briefed about the objectives of the study. Participants were assured that all questionnaires were anonymous, and participation in the study was voluntary.

#### DATA AVAILABILITY STATEMENT

The data sets used and/or analysed during the current study available from the corresponding author on reasonable request.

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#### ENDNOTE

<sup>1</sup> American Academy of Nursing (ANN) has developed an accreditation system for Magnet hospitals Magnet hospitals demonstrating excellence in nursing and patient care.

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