

## ORIGINAL PAPER

**THE EFFECT OF QUALITY OF WORK LIFE AND JOB CONTROL ON ORGANIZATIONAL INDIFFERENCE AND TURNOVER INTENTION OF NURSES: A CROSS-SECTIONAL QUESTIONNAIRE SURVEY****Narjes Alsadat Nasabi, Peivand Bastani***Health Human Resources Research Center, School of Management & Information Sciences, Shiraz University of Medical Sciences, Shiraz, Iran*Received April 9, 2018; Accepted July 8, 2018. Copyright: This is an open access article distributed under the terms of the Creative Commons Attribution International License (CC BY). <http://creativecommons.org/licenses/by/4.0/>**Abstract**

*Aim:* Attracting and maintaining human resources is one of the most significant responsibilities in human resources management. The aim of this research was to study the effect of Quality of Work Life and Job Control on Turnover Intention and Organizational Indifference. *Design:* Cross-sectional descriptive study. *Methods:* The survey was conducted using four standard questionnaires. Data were collected from 395 nurses in Iranian public educational hospitals in 2017. SPSS and Amos 22.0 were used to analyze data and test the theoretical model at a level of significance of 0.5. *Results:* The results indicated an average level of Quality of Work Life and Job Control, while the Turnover Intention level was higher than average, and participants reported a low level of Organizational Indifference. All hypotheses (except No. 2) were statistically significant, and the fitness indices [ $\chi^2=14.82$  (df = 6; p = 0.037);  $\chi^2/df = 2.47$ ; CFI = 0.94; IFI = 0.94; SRMR = 0.06; RMSEA = 0.06] indicated the soundness of the model. *Conclusion:* Planning properly and effectively with regard to Quality of Work Life and Job Control can play a significant role in the retention and performance of nurses – serious concerns for health policy makers. Nursing policy makers and managers can use these results to increase the number of nurses intending to remain in the profession.

**Keywords:** job control, nurses, organizational indifference, quality of work life, turnover intention.**Introduction**

Undoubtedly, Human Resources are the most valuable, strategic and non-substitutable assets in any organization (Bamberger et al., 2014). Thus, organizations and managers should be aware of this, and value these intangible assets (Suriyenty et al., 2014). Therefore, the ability to attract and retain human resources, is one of the most important responsibilities of human resources management, and is considered to be a competitive advantage. If management fails to successfully accomplish this significant task, it can lead to turnover of qualified employees, and, consequently, a decline in efficiency and quality of services (Simon, Müller, Hasselhom, 2010). Having talented, capable, and motivated staff, especially in health services, is not only regarded as a competitive advantage, but also compensates for deficiencies in other areas. It is key to the provision

of high quality services in healthcare organizations. Unfortunately, these organizations are faced with the serious managerial issue of employee turnover, particularly regarding qualified and talented staff (Steinmetz, de Vries, Tijdens, 2014; Fernet et al., 2017). Turnover Intention (TI) in staff is a strong predictive indicator of true turnover (Lee et al., 2013; Suriyenty et al., 2014), which refers to the readiness of employees to consider leaving an organization in the extended future (Lee et al., 2013).

Another challenge is human resources indifference, an issue facing many organizations. If employee indifference is not dealt with like other critical factors, such as reduced liquidity, income reduction, increase in outstanding claims, and so on, it can become a destructive force and result in crisis. Therefore, it can be considered an insidious problem, a slow collapse, and a continuous silent destructive presence. It is a gradual process, but its consequences will undoubtedly harm the organization. If the degree to which organizational aims are achieved or the level of success/failure of the organization are

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of little importance to individuals or groups, this is known as Organizational Indifference (OI). OI, lack of any personal emotional involvement (Klenosky et al., 2015), is the result of individual deprivation, which is a reflection of problems at the workplace. It leads to vocational disinterest and burnout, loss of creativity and risk taking, and reduces motivation (Wong, Spence Laschinger, 2015), and, ultimately, increases turnover.

With regard to the significance of these organizational issues, identifying the factors influencing them, and reasons why staff leave their jobs or become indifferent to their organizations are of great importance. One of the most effective approaches to turnover is Quality of Work Life (QWL). Quality of Work Life is related to employees' satisfaction in terms of personal attitudes and feelings (Lee et al., 2013), and can reveal employees' potential behavior (Monzani et al., 2016). Positive perception of Quality of Work Life, strategies aimed at improving Quality of Work Life, and training and development of skills of self-control can reduce Turnover Intention (Lee et al., 2013; Mosadeghrad, 2013a; 2013b; Steinmetz, de Vries, Tijdens, 2014; Surlenty et al., 2014). At the same time, organizations can use higher Quality of Work Life as a tool to attract and retain valuable employees (Surlenty et al., 2014). It should be noted that human resources are the backbone of health systems, and Quality of Work Life is key to retaining skilled and highly qualified staff (Mosadeghrad, 2013a). Job Control (JC) is another option. This positive organizational resource refers to an employee's belief in their ability to directly influence their working environment and organization, reducing frustration (Day, Crown, Ivany, 2017). It can have a direct or indirect influence on turnover (Portoghese et al., 2014; Wong, Spence Laschinger, 2015; Yamaguchi et al., 2016).

Unfortunately, nowadays organizations are faced with turnover of talented and competent employees, which has become a serious managerial challenge for health systems (Steinmetz, de Vries, Tijdens, 2014) in which nursing – a specialized, valuable, and highly stressful profession – holds a special position. Nurse turnover will affect the quality and quantity of healthcare. This phenomenon is a growing concern in many countries, and has reached a critical level in recent years, with organizations facing a shortage of nurses (Liu et al., 2015; Yamaguchi et al., 2016). According to World Health Organization (WHO) reports, there are an estimated 7.3 million nurses and midwives in the WHO European Region. This number is not sufficient to meet current and projected future needs (Büscher, Sivertsen, White, 2009).

Supply/demand gaps are projected in Australia (HWA, 2012), Canada (Fernet et al., 2017), the United States of America (Brewer et al., 2015; AACN, 2017), Sweden (Lagerlund et al., 2015), and the United Kingdom (CFWI, 2013).

Not only does this shortage impede the quality of healthcare, but it also imposes significant direct and indirect financial costs on countries and hospitals (Barlow, Zangaro, 2010; Almalki, FitzGerald, Clark, 2012; Gurková et al., 2013; Brewer et al., 2015). Similarly, in Iran, nurse turnover has become a concern for managers, and a major challenge for the health system, due to nurses leaving the profession rather than a lack of human resources entering nursing education. With regard to the critical nature of this issue, planning to adopt strategies for retaining nurses, especially experienced ones, and confronting challenges such as reduced motivation and job satisfaction, should be a priority for nursing managers (Bitanga, Austria, 2013). In this respect, the WHO has recommended investment in training, maintenance, and professional development of nurses as a way to ensure the health of communities (Kurth et al., 2016), since their skills and experience play an important role, and directly affect the quality of healthcare (Almalki, FitzGerald, Clark, 2012; Lin, 2014).

A report of hospital managers' evening program of January 2017 states that one of the main problems and challenges for management at public hospitals has been the high rate of Turnover Intention. In addition, recruiting nurses is expensive for hospitals, and their turnover is wasteful. Consequently, as these four organizational subjects will be effective in optimal management, this study aimed to investigate the effect of Quality of Work Life and Job Control on Turnover Intention and Organizational Indifference, and to introduce effective solutions to improve the current state. Hence, the following six hypotheses were constructed based on previous research, which has shown their direct and indirect relationship.

H1: Job Control is related to Quality of Work Life.

H2: Job Control is negatively related to Turnover Intention.

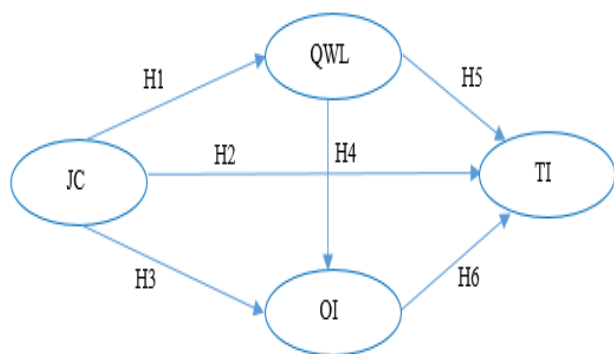
H3: Job Control is related to Organizational Indifference.

H4: Quality of Work Life is related to Organizational Indifference.

H5: Quality of Work Life is negatively related to Turnover Intention.

H6: Organizational Indifference is related to Turnover Intention.

Moreover, the theoretical model was designed as Figure 1.



**Figure 1** The theoretical model

## Aim

The aim of this research was to study the effect of Quality of Work Life and Job Control on Turnover Intention and Organizational Indifference.

## Methods

### Design

Cross-sectional descriptive study.

### Sample

This cross-sectional, descriptive, questionnaire survey aimed to study the effects of Job Control and Quality of Work Life on Organizational Indifference and Turnover Intention. A total of 554 nurses voluntarily completed a self-report paper questionnaire, and 395 returned the questionnaire, representing a response rate of 71.3%.

### Data collection

The research involved nurses at five public educational hospitals in one of the macro regions (four provinces) covered by the MHME of Iran. The process of gathering data took about three months, from April to July 2017. The paper questionnaires were collected by researchers.

Three original scales Quality of Work Life with 28 questions (Walton, 1973), Job Control with 11 questions (Jackson et al., 1993), and Turnover Intention with eight questions (Olusegun, 2013), were translated into Persian, and one Organizational Indifference with 33 questions (Gholipour, 2011) was designed in Persian. The Quality of Work Life questionnaire consisted of eight dimensions: fair adequate compensation, safe healthy workplace, development and use of human efficiencies, opportunity for constant growth and security, social cohesion and unity, constitutionalism in workplace, total life span, and social dependency. The Organizational Indifference questionnaire

included five dimensions: indifference to managers, the organization, the customers and clients, coworkers, and the job. The face and content validity of the questionnaires were confirmed, standardized, and administered by other researchers in Iran (Mollaabbasi, Rezaeemanesh, Salehi Sadaghiani, 2013; Mosadeghrad, 2013a, 2013b). The Job Control questionnaire included time control and method control, which are part of job design. Timing control refers to the individual's opportunity to determine the scheduling of his or her work behavior, and method control refers to individual choice in how to carry out given tasks (Jackson et al., 1993). The Turnover Intention questionnaire was designed based on “thinking about leaving the firm” and “the probability of looking for another job”, to measure the degree of turnover intention (Olusegun, 2013).

Respondents indicated their degree of agreement with the scales' statements on a five-point Likert ranging from 1 (strongly disagree) to 5 (strongly agree). Scoring for the negatively worded items is reversed. In this study, the internal reliability for each scales as in Table 2, and the reliability of Quality of Work Life and Organizational Indifference dimensions were more than 0.7. In addition, the convergent validity [CR > 0.7; CR > AVE (average variance extracted); AVE > 0.5] (Hair et al., 2010) of all main variables were checked. Based on the results (Table 2) the convergent validity of each scale was approved.

### Data analysis

Data were analyzed using SPSS and AMOS 22.0. The Kolmogorov-Smirnov test statistic was non-significant ( $p = 0.063$ ), showing that the variables were normally distributed. Then, descriptive and analytical statistics were administered at  $\alpha = 0.05$  to analyze the data on participants' general characteristics (Table 1), and main variables (Quality of Work Life, Job Control, Turnover Intention and Organizational Indifference) (Table 2). Less than 1% of the data was missing and the results showed that these missing values were completely at random. Mean imputation to replace the missing values did not significantly affect the means and variances of the main variables. There were no significant differences in the main study variables by demographics, thus controls were not required.

The theoretical model (Figure 1) was tested using path analysis to demonstrate the effects of variables on each other. The fitness of model was judged by indices as follows: chi-square ( $\chi^2$ ), significance ( $p$ ), chi-square/degrees of freedom ratio ( $\chi^2/df$ ), comparative fit index (CFI), incremental fit index (IFI), standardized root mean square residual

(SRMR), and root mean square error of approximation (RMSEA). The critical value for  $\chi^2/df$  is less than 3, CFI and IFI is equal and more than 0.90, Low values (between 0 and 0.06) for RMSEA and SRMR, indicate a well-fitting model (Kline, 2015).

## Results

### Participant demographic characteristics

Sample demographics are presented in Table 1. The demographic variables were age, years of work experience, clinical unit type, sample position, sex, and education.

**Table 1** Participant demographic characteristics (n = 395)

Variable	n (%)	M ± SD	Range	Variable	n (%)
Age		31.5 ± 6	23–48	Position	nurse 308 (77.9%)
Years of work experience		8.1 ± 5	2–28	head nurse	87 (22.1%)
Clinical unit type	ICU	87 (22.1%)		Sex	male 67 (16.9%)
	CCU	68 (17.2%)			female 328 (83.1%)
	Oncology	53 (13.4%)		Education	BSc 294 (74.4%)
	Emergency	115 (29.1%)			MSc 101 (25.5%)
	others	72 (18.2%)			

M = mean; SD = Standard deviation; ICU = Intensive care unit; CCU = Coronary care unit; BSc = Bachelor of science; MSc = Master of science

### Descriptive results for major study variables

The means, standard deviations, correlations, and internal consistency reliabilities (Cronbach’s alphas) for four main scales are reported in Table 2. All alphas were more than 0.7, which was within the acceptable range. Based on the mean and standard deviation, Quality of Work Life (2.54 ± 0.59) and Job Control (2.53 ± 0.81) were at an average level; Organizational Indifference (2.00 ± 0.52) was at a low level; and nurses reported a higher than average level of Turnover Intention (3.49 ± 0.82) (Table 2).

The results of Pearson correlation between the study variables at  $\alpha = 0.01$  and 99% confidence level denoted significant positive correlations between Quality of Work Life and Job Control, and between Organizational Indifference and Turnover Intention. However, there was a significant negative correlation between Quality of Work Life and Turnover Intention, between Quality of Work Life and Organizational Indifference, and between Organizational Indifference and Job Control. In addition, data analysis showed that there was no significant correlation between Job Control and Turnover Intention (Table 2). Hence, the data analysis confirmed all hypotheses except H2.

Next, the variables showing significant statistical relationship were evaluated through stepwise regression to show the severity of relationships between Turnover Intention with Quality of Work Life and Organizational Indifference, and between Organizational Indifference with Job Control and Quality of Work Life. The results of enter regression analysis are shown in Table 3. This analysis showed that Quality of Work Life and Organizational Indifference can predict 17.7% of Turnover Intention variance, and Organizational Indifference variance was predicted by 14.9% of Job Control and Quality of Work Life. Moreover Job Control can predict 17.3% of Quality of Work Life.

Hence, regression equation is as follows:

$$\begin{aligned}
 TI &= 3.814 - 0.481 \text{ Quality of Work Life} + 0.452 \text{ OI} \\
 OI &= 1.452 - 0.259 \text{ Job Control} - 0.041 \text{ QWL} \\
 QWL &= 1.782 + 0.302 \text{ JC}
 \end{aligned}$$

Generally, in this research Job Control was the independent variable and Turnover Intention was the dependent variable. In addition, Quality of Work Life and Organizational Indifference had a mediating role.

**Table 2** Correlations and characteristics of main variables (n = 395)

Main Variables	M ± SD	Score	Range	$\alpha$	CR	AVE	QWL	JC	OI	TI
QWL	2.54 ± 0.59	71.3	0–5	0.90	0.83	0.82	1			
JC	2.53 ± 0.81	27.8	0–5	0.89	0.89	0.65	0.419**	1		
OI	2.00 ± 0.52	66.1	0–5	0.91	0.85	0.73	-0.123**	-0.384**	1	
TI	3.49 ± 0.82	27.9	0–5	0.83	0.93	0.77	-0.309**	-0.055	0.246**	1

M = mean; SD = Standard deviation; CR = Critical Ratio; AVE = Average variance extracted; QWL = Quality of work life; JC = Job control; OI = Organizational indifferences; TI = Turnover Intention; \*\*p < 0.01; \*p < 0.05

**Table 3** The regression results of main variables (n = 395)

Dependent variable	Independent variable	R	R2	constant	B	Beta	Sig.
TI	QWL	0.421	0.177	3.814	-0.481	-0.345	> 0.001
	OI				0.452	0.288	
OI	JC	0.387	0.149	1.452	-0.259	-0.404	> 0.001
	QWL				-0.041	-0.046	
QWL	JC	0.419	0.173	1.782	0.302	0.419	> 0.001

QWL = Quality of work life; JC = Job control; OI = Organizational indifferences; TI = Turnover Intention.

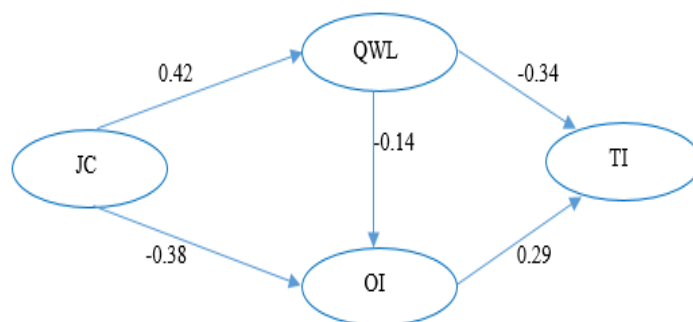
*Test of the theoretical model*

The critical ratio of the model was more than 2.58 (c.r. = 2.23), indicating model normality. All estimated paths, except the path based on hypothesis No. 2, were significant, and the goodness of fit of the

model was acceptable. The  $\chi^2$  for final model was 14.82 (df = 6; p = 0.037),  $\chi^2/df = 2.47$ , CFI = 0.94, IFI = 0.94, SRMR = 0.06, and RMSEA = 0.06. The standardized coefficient ( $\beta$ ) is written on the model (Figure 2).

**Model fit statistics**

$\chi^2=14.82$  (df = 6, p = 0.037);  $\chi^2/df = 2.47$ ; CFI = 0.94; IFI = 0.94; SRMR = 0.06; RMSEA = 0.06



**Figure 2** Final model (p ≤ 0.05)

All path estimates (except the path between Job Control & Turnover Intention) were significant (p < 0.05) and were in line with the theoretical directions. The significant effects were as follows: Job Control and Quality of Work Life with a positive effect ( $\beta = 0.42$ ), Job Control and Organizational Indifference with a negative effect ( $\beta = -0.38$ ), Quality of Work Life and Organizational Indifference with a negative effect ( $\beta = -0.14$ ), Quality of Work Life and Turnover Intention with a negative effect ( $\beta = -0.34$ ), Organizational Indifference and Turnover Intention with a positive effect ( $\beta = 0.29$ ). Furthermore, Job Control had indirect effect (IE) on Turnover Intention by having influencing on Quality of Work Life and Organizational Indifference the IE of Job Control on Turnover Intention by influencing on Quality of Work Life ( $\beta = -0.15$ ) and the IE of Job Control on Turnover Intention by influencing on Job Control ( $\beta = -0.12$ ). Among all these effects, the standardized coefficient of Job Control and Quality of Work Life was the

strongest, and that of Quality of Work Life and Organizational Indifference was the weakest.

**Discussion**

Organizations are more than just organizational diagrams and their existence is multifactorial, with the most important factor undoubtedly being human resources. Organizations and their managers should be aware that their long-term success depends more on intangible assets such as employees’ thoughts and ideas than financial and physical indicators (Surienty et al., 2014). The current study attempted to determine the effect of the Quality of Work Life and Job Control on Turnover Intention and Organizational Indifference in nurses of Iranian public educational hospitals. The results showed that levels of Quality of Work Life and Job Control were average. Organizational Indifference was at a low level, as opposed to the level of Turnover Intention, which was higher than average. The Turnover

Intention mean indicated that its level could become critical if not addressed by managers.

Our findings indicating a non-acceptable level of Quality of Work Life were in line with previous study results (Almalki, FitzGerald, Clark, 2012), but other research has indicated better results (Gillet et al., 2013). Likewise, in prior research (Kubicek, Korunka, Tement, 2014; Portoghese et al., 2014; Yamaguchi et al., 2016), nurses' Job Control was found to be higher than average. However, in this study, nurses declared that their Job Control was not acceptable. According to the systematic review, no registered study was found on the evaluation of nurses' Organizational Indifference. Fortunately, nurses in this study had less Organizational Indifference than can imperil social health and health service quality. This might indicate the acceptable sensitivity and responsibility of nurses to their critical duties and roles and job-related criteria. Finally, this research, and another local study (Mosadeghrad, 2013a, 2013b) and other international studies (Lee et al., 2013; Yim et al., 2017) indicate that the status of nurses' Turnover Intention is in a critical and dangerous state. This is in contrast with others (Brewer et al., 2015; Wong, Spence Laschinger, 2015; Fernet et al., 2017; Gao et al., 2017). Therefore, nursing policy makers and managers should pay more attention to factors influencing Turnover Intention as a strong predictive indicator of true turnover (Lee et al., 2013; Surlenty et al., 2014). Next, we evaluated the main criteria correlation. Data analysis showed that there was a statistical correlation between the variables, as per the hypotheses, with the exception of hypothesis No. 2. Hence, nursing managers can control and reduce nurses' Turnover Intention by increasing Quality of Work Life and decreasing Organizational Indifference. In addition, Job Control by having an influence on Organizational Indifference, can decrease Turnover Intention.

The creation and development of nurses' Quality of Work Life, in addition to positive perceptions of Quality of Work Life are very important, and can directly reduce nurse turnover (Almalki, FitzGerald, Clark, 2012; Lee et al., 2013; Mosadeghrad, 2013a; Surlenty et al., 2014). Quality of Work Life includes fair adequate compensation, a safe healthy workplace, development and use of human efficiencies, opportunity for constant growth and security, social cohesion and unity, constitutionalism in workplace, total life span, and social dependency (Walton, 1973). Thus, if nursing policy makers and managers want to reinforce Quality of Work Life in a health system, they should adequately compensate nurses as the specialized and skilled

professionals that they are, and adjust the proportion of nurses in health services, to decrease discrimination in terms of financial and nonfinancial compensation (Hayes et al., 2012; Kim, Lee, 2016; Kim, Park, 2016; Monzani et al., 2016; Mosadeghrad, 2013b). The other option is to ensure adequate health and safety at work. Safety is crucial for patients, as it is for nurses. Furthermore, by understanding the real nature of nursing, and its tasks, and by planning to use nurses' competencies for personal and organizational development, managers can reduce nurse turnover (Hayes et al., 2012). This opportunity and job stability (Manzano-García, Ayala-Calvo, 2014; Liu et al., 2015) provide optimism. Consequently, health and nursing managers must provide professional development to improve nursing knowledge and skills, increase quality of nursing care, and reduce their turnover (Gurková et al., 2013; Manzano-García, Ayala-Calvo, 2014; Brewer et al., 2015). Finally, social cohesion, social dependency and unity, which can be influenced by communication and work environment, can have an effect on Quality of Work Life. Quality of communication with other team members can make the work environment more attractive (Goldman, Tabak, 2010), and reduce turnover. Finally, the most important dimension is community attitudes towards nurses and social support, which can make them feel valuable, strongly impacting on nurse turnover (Brewer et al., 2015; Liu et al., 2015). Thus, high Quality of Work Life is an important factor in retaining motivated, skilled and qualified staff in health systems (Mosadeghrad, 2013a). Moreover, the results presented a meaningful statistical correlation between Quality of Work Life, Job Control and Organizational Indifference, which can indirectly effect Turnover Intention. Job Control gives employees greater readiness to use their competencies to improve quality, and will engage them more in their work. Work engagement is at the opposite end of the spectrum to Organizational Indifference, and can generally promote Quality of Work Life (Gillet et al., 2013). In addition, Job Control creates a balance between authority and responsibility, adjusts workload, and decreases burnout (Portoghese et al., 2014; Yamaguchi et al., 2016), and, as a result, can increase Quality of Work Life, reduce Organizational Indifference, and reduce turnover. Although data analysis cannot correlate Job Control and Turnover Intention directly, Job Control has a positive influence on Quality of Work Life and a negative effect on Organizational Indifference. Both Job Control and Quality of Work Life can reduce inclination towards turnover. Job Control can reduce Organizational Indifference, and low

Organizational Indifference can increase staff retention. It protects employees against the unpleasant effects of their working environment, gives them more freedom to manage their work environment, thus reducing stress and increasing satisfaction. As some of the reasons for Organizational Indifference include lack of meritocracy, supervision, knowledge about the needs of the staff, and selective perception of others' jobs and expertise, discrimination, the decision-making pyramid, lack of regard for staff welfare, and employees' lack of awareness of their own performance, addressing these issues should be considered in order to achieve high Quality of Work Life, and decrease Organizational Indifference. Moreover, nurses work in a place where they have a high social status, and provide valuable effective services to society. They feel a sense of responsibility towards society, and organizations should feel a sense of responsibility towards them, for example by developing radical strategies to improve their work/life balance.

Although we were unable to find any registered research regarding Turnover Intention and Organizational Indifference correlation in nurses, managers must pay ample attention to Organizational Indifference as an early warning sign, with a positive correlation to turnover. As indifferent employees shape an indifferent organization, individuals suffering from indifference lose their motivation and disregard the future; and demoralization fuels turnover. Indifference is a slow process that builds up gradually in individuals, and its consequences will harm organizations. Therefore, it should be constantly viewed as a harmful factor. As indifferent employees cannot be counted on to assist in achieving organizational goals, and organizations need motivated and committed human resources in today's increasingly competitive market, not only do organizations need to be constantly aware of human resource indifference, but they should also seek ways to prevent and control it (if faced with it in future). In general, the present findings highlight the influence of Job Control on Quality of Work Life and Organizational Indifference, Organizational Indifference on TI, and Quality of Work Life on Organizational Indifference and Turnover Intention directly, and Job Control on Turnover Intention indirectly. Overall, the results of path analysis guided the researchers to the improved model as a final model. Henceforth, nursing managers would benefit from interventions aimed at reducing Organizational Indifference and Turnover Intention by fostering Quality of Work Life and Job Control.

## Conclusion

Nurse turnover is a major challenge in health systems, and is becoming problematic, especially in Iran. This study aimed to extend the understanding of the factors influencing Organizational Indifference and Turnover Intention of nurses. The nurses in this study showed average satisfaction with their Quality of Work Life and Job Control, high Turnover Intention, and a low level of Organizational Indifference. Thus, it is necessary to pay attention to each variable, and plans to improve their status are required. In addition, the research findings support the notion that good Quality of Work Life and balanced and proportional Job Control effect nurses' performance, prevent organizational silence, and decrease Organizational Indifference, leading to decreased turnover. Consequently, nursing policy makers and managers can use and strengthen Job Control and Quality of Work Life in order to motivate nurses, to increase their intention of remaining, and to boost the quality of nursing care and health services. It is recommended that more authentic and precise opinions and expectations should be expressed and more feasible solutions offered using qualitative approaches in future studies. In addition, further research is needed to evaluate the intervention programs on all of the main variables in this study. Moreover, researchers could study the other variables that can have an effect on nurse turnover such as greater opportunities for promotion, participating in decision-making and policy-making in health, and professional development opportunities.

## Limitation of study

First, conducting research based on a cross-sectional design does not permit the determination of fundamental relationships between the main variables precisely, and no accurate conclusions can be drawn based on causation. Second, Turnover Intention and Organizational Indifference build up very gradually and a longitudinal study is required to predict the reality and intensity of the relationships. Third, there was a lack of cooperation among the correspondents in completing the self-reporting questionnaires, although attempts were made to promote cooperation by providing convincing reasons for the study. The numbers of questionnaires were also increased to maximize the response rate. Lastly, most nurses participating in the survey are working in special clinical units such as ICU, CCU, ER, and oncology, where nurses' work can be strongly related to their Job Control, Quality of Work Life, Organizational Indifference, and Turnover Intention.

## Ethical aspects and conflict of interest

This type of questionnaire research does not require approval by ethics committees in Iran, and only the consent of the participants was required. An official letter was sent to hospital managers, who regarded the research as a priority of their own.

The questionnaires were anonymous. Before they were completed, researchers explained the aims, and it was made clear that participation was voluntary. Participants returned their completed questionnaires directly to the research group.

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## Authors' contribution

Conception and design (NAN), data analysis and interpretation (NAN, PB), data collection (NAN), manuscript draft (NAN), critical revision of the manuscript (PB), final approval of the manuscript (NAN, PB).

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