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Investigating the relationship between organizational justice, job satisfaction, and intention to leave the nursing profession: A cross-sectional study

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Abstract

Aims: This study aims to test a hypothetical model linking various dimensions of organizational justice to the job satisfaction and nurses' intention to leave the profession based on the theoretical assumptions of the Alexander model of voluntary turnover.

Design: A cross-sectional survey.

Methods: This study was conducted on 317 inpatient ward nurses of six teaching hospitals in Tehran, Iran during 1 September 2017–14 November 2018. Clinical nurses were recruited by a multistage random sampling. Data were collected using structured questionnaires of organizational justice, job satisfaction, and nurses' intention to leave. Data were analysed by structural equation modelling using Amos 22 statistical program.

Results: The structural equation model demonstrated adequate fit and the hypothesized correlations were partially supported. The findings suggested that the distributive justice ($p < .001$; $\beta = 0.24$) and interactional justice ($p < .001$; $\beta = 0.44$) could indirectly affect the nurses' intention to leave the nursing profession via the direct impact on job satisfaction, while job satisfaction had a significant, negative effect on the nurses' intention to leave ($p < .001$; $\beta = -0.71$).

Conclusions: According to the results, the model fit was acceptable, suggesting the validity of the final model. Furthermore, distributive and interactional justice could reduce the intention to leave the nursing profession by influencing the job satisfaction of the clinical nurses.

Impact: This was one of the first studies to determine the aspects of justice that must be further emphasized by healthcare managers to increase the job satisfaction of nurses and their retention in healthcare systems. The findings indicated that fair interactions have a greater impact on job satisfaction and retention of nurses than procedural and distributive justice. The results of this study provide valuable references for nursing managers to increase the job satisfaction of nurses and their retention in healthcare settings.

KEYWORDS

intention to leave profession, job satisfaction, nurses, organizational justice, structural equation modelling

1 | INTRODUCTION

The shortage of nursing staff is a growing concern in the healthcare systems worldwide (Marc et al., 2019). Nurses have a higher intention to leave the profession compared with other healthcare professionals (Hart, 2005; Owolabi, 2012; Van der Heijden et al., 2009). The intention to leave is the last component in a withdrawal cognition sequence that leads to actual leave. The intention to leave is defined as the conscious and voluntary desire to leave the unit at a specific time (e.g., in 6 months; Yanchus et al., 2015).

The cost of the productivity reduction resulting from a nurse's leave has been estimated to be 6,245–14,102 dollars and the cost of hiring a new nurse is approximately 15,825 dollars (Waldman et al., 2004). In addition to the increasing rate of burnout and average age of working nurses, nurses' intention to leave may also reduce the quality of care and even increase the mortality rate of patients (Chin et al., 2017).

The gap between the supply and demand for nurses has become a pervasive issue in the world. It is estimated that Canada will face a shortage of 60,000 nurses by 2022 (Marc et al., 2019). Under such circumstances, if healthcare organizations intend to remain able to provide high-quality services to the community, special attention should be paid to the factors that could improve the work environment, increase job satisfaction, and reduce the intention to leave (Laschinger & Fida, 2015; Sasso et al., 2019). Various factors affect nurses' intention to leave, such as managerial strategies, inadequate wages and benefits, stress, and injustice (Ito et al., 2001).

In this regard, the study by Owolabi (2012) indicated that organizational justice is a strong determinant of individuals' decision to stay or leave an occupation in the healthcare system; compared with other healthcare professions, nurses are reported to receive the lowest perceived organizational justice and have the highest intention to leave. Perceived justice could increase the job satisfaction and retention of nurses (Chin et al., 2017; Tourani et al., 2016). Mobley et al. (1979) believed that to evaluate turnover behaviour, a series of turnover process models should be considered, including the perception of individuals regarding their current occupation and the organization, while their motivations should also be assessed and recognized as an immediate determinant in this regard (LIOU, 2009).

The present study aimed to assess a model to link the dimensions of organizational justice (distributive, procedural, and interactional justice) to the job satisfaction and intention of nurses to leave their profession.

1.1 | Background

1.1.1 | Theoretical framework and research model

Our proposed model (Figure 1) was based on the theory by Alexander et al. (1998), who claimed that the act of leaving a job results from the decision and intention to leave the job and the intention originates from the attitude towards the job (Alexander et al., 1998). In their study, job satisfaction was reported to be a key influential factor in shaping the attitudes towards an occupation and they evaluated the effect of this factor on the intention to leave.

The association of job satisfaction and intention to leave has been empirically supported in previous studies (Galletta et al., 2011; Han & Jekel, 2011; Lee et al., 2020; Pomaki et al., 2010; Yang, 2010). Job satisfaction is the positive emotional response of employees to a particular job. According to Price and Mueller (1981), job satisfaction directly affects the turnover rate of employee by influencing their intention to leave indirectly (Price & Mueller, 1981). While, further research is required to assess the effect of attitude.

In the present study, we attempted to extend and test this model by adding organizational justice as one of the predictive variables of job satisfaction. Although organizational justice plays a key role in occupational outcomes, few studies have been focused on this issue in the nursing profession to date (Kuokkanen et al., 2014). According to the literature, organizational justice has a positive and significant correlation with job satisfaction (Al-Zu'bi, 2010; Chegini et al., 2019; Zainalipour et al., 2010). Perceived organizational justice is defined as the extent to which individuals believe that the outcomes they attain and the ways they are treated are fair and in line with ethical standards (Abou Hashish, 2020; Cropanzana et al., 2007). The previous studies in this regard have proposed the dimensions of organizational justice as distributive, procedural, and interactional justice. Distributive

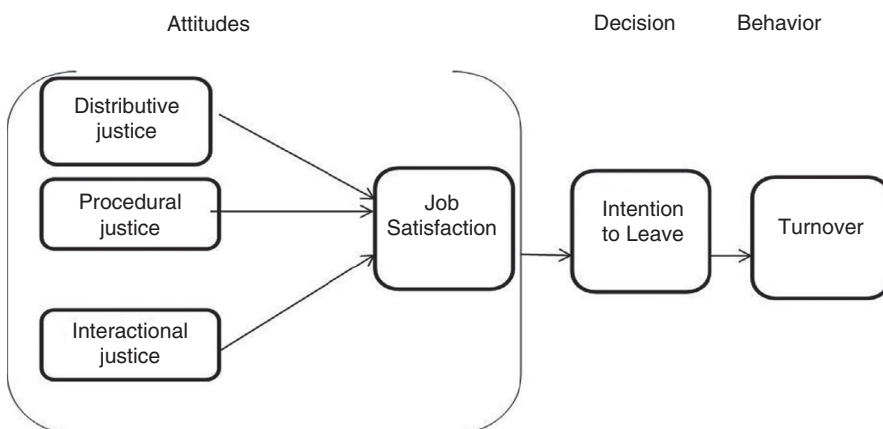


FIGURE 1 The theoretical model of turnover and intention to leave among nursing personnel

justice refers to the fair distribution of outcomes, procedural justice refers to the procedures of the fair distribution of outcomes and interactional justice refers to fairness in interpersonal interactions (Abou Hashish, 2020).

Employees often have beliefs and attitudes regarding how decisions are made and implemented, which can be different from actual decision-makings. This may decrease their job satisfaction, thereby increasing their intention to leave (Nadiri & Tanova, 2010). A psychosocial work environment has a remarkable impact on the job satisfaction and nurses' intention to leave and organizational justice is an influential factor in the psychosocial work environment (Lambert, 2003; Nadiri & Tanova, 2010).

Considering the above, it seems that various dimensions of organizational justice could properly explain the job satisfaction of nurses. In other words, various dimensions of organizational justice could influence job satisfaction by explaining the attitude of nurses towards the job and predicting their intention to leave. Notably, the effects of different dimensions of organizational justice on job satisfaction and nurses' intention to leave may vary and establishing the exact nature of these differences reflects the exploratory nature of the current research. The main hypotheses of our research were as follows:

- H H 1* Various dimensions of organizational justice (distributive, procedural, and interactional justice) are directly correlated with nurses' job satisfaction.
- H H 2* The effects of various dimensions of organizational justice on job satisfaction vary.
- H H 3* Job satisfaction is directly correlated with the nurses' intention to leave.

2 | THE STUDY

2.1 | Aims

This study aims to test a hypothetical model linking different dimensions of organizational justice (distributive, procedural, and interactional justice) to job satisfaction and nurses' intention to leave the profession based on theoretical assumptions of the Alexander model of voluntary turnover.

2.2 | Design

A cross-sectional, descriptive, correlational design was used to test hypothesized model.

2.3 | Participants

The study population consisted of the nurses employed at the inpatient wards of six teaching hospitals in Tehran, Iran during 1 September 2017–14 November 2018. The inclusion criteria of the

study were a minimum of 1 year of work experience, bachelor's degree (minimum required degree for employment as a nurse in Iran) or higher in nursing and informed consent to participate in the study. In total, 360 questionnaires were distributed, of which 328 were returned and 11 cases were eliminated due to incompleteness. Finally, 317 questionnaires were assessed in the final analysis.

2.4 | Data collection

Via multistage random sampling, six hospitals were selected randomly from 12 teaching hospitals affiliated to one of the medical universities in Tehran. In total, 1,315 nurses were employed in the selected hospitals in the study period. The number of the nurses to be recruited from each hospital was determined by multiplying the total number of the nurses in each hospital by the sample size and dividing the result by the total number of the nurses in all the hospitals ($N = 1,315$). Considering the quota of each ward, the nurses were selected via convenience sampling. The questionnaires were delivered to the nurses of each ward at the beginning of their work shift. The nurses placed the questionnaires inside an envelope and handed the envelope to the secretary of their department at the end of the work shift.

2.4.1 | Questionnaires

Organizational justice

The organizational justice scale has been developed by Niehoff and Moorman and was modified to determine the perceptions of the nurses regarding organizational justice in the present study (Niehoff & Moorman, 1993). The questionnaire items were designed based on scale proposed by Niehoff and Moorman and the previous qualitative research in this regard (Afzali et al., 2017; Zahednezhad et al., 2018). Considering the contextual characteristics of the sample population, a pretest was developed by four professors of nursing, one professor of instrumentation, and eight clinical nurses.

After obtaining satisfactory results in a pilot study on 35 nurses, the questionnaire was administered to the entire sample population. The questionnaire consisted of 22 items and three components of distributive justice (four items), procedural justice (11 items), and interactional justice (seven items). The items of the questionnaire were scored based on a five-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree), with the higher scores representing the higher perception of justice. The construct validity of the questionnaire was examined using exploratory factor analysis (EFA). The EFA results indicated that in the sample population, the questionnaire was composed of three factors (distributive, procedural, and interactional justice), which explained 54.11% of the total variance. The Cronbach's alpha coefficient was used to assess the reliability of the scale and estimated to be higher than 0.8 for all the dimensions.

Nurses' intention to leave

In the present study, three questions posed by Kim and Leung (2007), adapted from Rusbelt et al. (1988), were used to measure nurses' intention to leave (Kim & Leung, 2007). The questionnaire items were scored based on a five-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree), with the higher scores representing the higher intention to leave the profession. Kim and Leung have reported the Cronbach's alpha of the questionnaire in American, Korean, Chinese, and Japanese samples to be 0.92, 0.91, 0.92, and 0.93, respectively (Kim & Leung, 2007). The scale has been translated to Persian and back translated by Golparvar & Nadi, (2010), who have confirmed its reliability at the Cronbach alpha coefficient of 0.84. In the present study, the results of EFA indicated that the questionnaire consisted of one factor that explained 73% of the total variance in the sample population. In addition, the Cronbach's alpha coefficient was used to measure the reliability of the scale and estimated at 0.90.

Job satisfaction

Three questions posed by Edwards and Rothbard (1999) were used to measure the job satisfaction (Edwards & Rothbard, 1999). The questionnaire items were scored based on a five-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). Kim and Leung (2007) have reported the Cronbach's alpha of the questionnaire in American, Korean, Chinese, and Japanese samples to be 0.84, 0.84, 0.84, and 0.87, respectively (Kim & Leung, 2007). The scale has been translated to Persian and back translated by Golparvar & Nadi, (2010), who have confirmed its reliability at the Cronbach's alpha coefficient of 0.74. The results of EFA indicated that the questionnaire consisted of one factor in the sample population that explained 83% of the total variance. Notably, the Cronbach's alpha coefficient was used to measure the reliability of the scale and calculated to be 0.82.

2.5 | Ethical consideration

The study protocol was approved by the Ethics Committee of the University of Social Welfare and Rehabilitation Sciences. Before the completion of the questionnaires by the respondents, they were informed of the research objectives, voluntary participation, anonymous response, and confidentiality of the data. The nurses placed the questionnaire inside an envelope and delivered the envelope to the secretary of their department after completion.

2.6 | Data analysis

Data analysis was performed in SPSS version 22.0 to describe the characteristics of the samples and measures. In addition, structural equation model (SEM) analyses were conducted in the AMOS software version 22.0 in accordance with the two-step

approach proposed by Anderson and Gerbing (1988). In the first step, confirmatory factor analysis was performed to assess the measurement model in terms of the latent constructs and the SEM was used to test the research hypotheses. Modification indices were applied to relax the parameter constraints and improve the optimal model fit, which was evaluated based on the root mean square error of approximation (RMSEA), CMIN (Chi-square/degrees of freedom; χ^2/df), comparative fit index (CFI), goodness-of-fit index (GFI), adjusted goodness-of-fit index (AGFI), Tucker-Lewis index (TLI), and normed fit index (NFI). The acceptable threshold levels of the fit indices are presented in the tables (Bentler & Bonett, 1980; Straub, 1989). With the normal distribution of the data, an estimation of the maximum likelihood was also used.

2.7 | Validity and reliability

Confirmatory factor analysis was conducted to establish the factorial validity of the scales. In addition, measurement model was evaluated using the CFA in the preliminary analyses. Marsh et al. (1988) have proposed that the criteria for ideal fit indices are the relative independence of the sample size, accuracy, and consistency to assess various models and ease of interpretation aided by a well-defined continuum or preset range. Garver and Mentzer (1999) have recommended the TLI, CFI, and RMSEA as they are relatively independent of the sample size effects. TLI and CFI are in the range of 0–1 and the values of ≥ 0.90 represent an acceptable fit, while the RMSEA values of 0.05–0.08 are considered acceptable (Daiski, 2004). The CFA results provided an acceptable fit for the five factor-28 items (CMIN/DF = 2.2; RMSEA = 0.063; TLI = 0.89; CFI = 0.90), demonstrated an acceptable overall measurement model fit.

In the next step, the convergent validity of the constructs was evaluated as part of the construct validation process. Based on the statement of Dunn et al. (1994), if the factor loadings are statistically significant, convergent validity is confirmed. In the present study, the factor loadings of the measures (λ) were 0.60–0.85 for distributive justice, 0.59–0.72 for interactional justice, 0.50–0.70 for procedural justice, 0.80–0.89 for job satisfaction, and 0.70–0.87 for the intention to leave. All the factor loadings of the measurement model were considered statistically significant ($t = 8-18.4$; $p < .01$) and the observed indicators were loaded on the predetermined factors, respectively. The convergent validity was also acceptable. To maximize the diversity of the participants and increase the generalizability of the obtained data (external validity), the nurses were selected from both genders in various wards (medical, surgical, emergency, and critical care) of the hospitals affiliated to the second largest medical university in Iran. Table 1 shows the reliability estimates of the measures. Accordingly, the internal consistency of the measures was confirmed by the adequacy of the Cronbach's alpha values (0.82–0.90).

TABLE 1 Means, standard deviations, and correlations for variables in all data

Variables	M	SD	1	2	3	4	5	Cronbach's alpha
1. Distributive justice	1.71	0.57	1					0.82
2. Procedural justice	2.85	0.67	0.35**	1				0.88
3. Interactional justice	2.76	0.73	0.30**	0.57**	1			0.85
4. Job satisfaction	2.86	1.17	0.34**	0.42**	0.47**	1		0.90
5. Turnover intention	3.27	1.01	-0.28**	-0.31**	-0.37**	-0.59**	1	0.82

** $p < .01$.

3 | RESULTS

3.1 | Participant characteristics

In the present study, the nurses were selected from diverse clinical backgrounds (cardiology, intensive care, oncology, surgery, and geriatrics) and women constituted 81.7% of the sample population. The mean age of the participants was 31.4 years (SD 7.47). The mean work experience was 8.24 years (SD 6.76).

3.2 | Descriptive statistics of major variables

Table 1 shows the mean, standard deviation, reliability, and intercorrelations between the study variables. According to the findings, the nurses participating in the study had relatively high levels of intention to leave their profession and the mean score of this variable was estimated at 3.27 (SD 1.01). Furthermore, positive, significant correlations were observed between all the dimensions of organizational justice and job satisfaction. The most significant correlation was observed with interactional justice ($r = 0.47$; $p < .01$), while the least significant association belonged to distributive justice ($r = 0.34$; $p < .01$). On the other hand, a strong, inverse correlation was denoted between job satisfaction and the intention of nurses to leave their profession ($r = -0.59$; $p < .01$). The internal consistency of the measures was confirmed by the adequacy of the Cronbach's alpha values (0.82–0.90).

3.3 | Structural equation model

Structural equation modelling was used to analyse the target relationships in the conceptual model and the goodness of fit of the model with using AMOS software. There is a need to use several GOF (goodness of fit) measures to minimize the error rate in the suggested model (Alexander et al., 1998; Bentler & Bonett, 1980; Chen et al., 2008). Table 2 shows the calculated GOF indices, which did not yield satisfactory results in the initial analysis (GFI = 0.83; AGFI = 0.80; CFI = 0.87; CMIN = 2.51; RMSEA = 0.069; TLI = 0.86; NFI = 0.81). Table 3 shows the results of the structural correlations with the standardized path coefficients among the variables. Accordingly, the two variables of distributive justice and interactional justice had direct and significant effects on the job satisfaction of the nurses, while procedural justice had no significant association with job satisfaction ($p > .05$; $t = 1.45$; $\beta = 0.14$).

In the next step, according to the results obtained in the first step of the analysis, the procedural justice variable was eliminated from the structural model. Furthermore, the standardized path coefficients between the variables and GOF indices were re-analysed and the changes resulted in the improved model fit. Figure 2 depicts the SEM model with completely standardized path coefficients. In this phase, the calculated indices showed satisfactory GOF with the data (GFI = 0.92; AGFI = 0.89; CFI = 0.95; CMIN/DF = 2.2; RMSEA = 0.062; TLI = 0.94; NFI = 0.91; Table 2).

The standardized path coefficients of the main variables were in the expected directions and distributive justice and interactional justice were significantly correlated with job satisfaction. In other

TABLE 2 Structural model results-model fit indices

Model fit index	Initial model	Second model	Standards
CMIN (Chi-square/degrees of freedom) χ^2/df	2.51	2.2	<3
Goodness of fit index (GFI)	0.83	0.92	>0.9
Adjusted goodness of fit index (AGFI)	0.80	0.89	>0.9
Comparative fit index (CFI)	0.87	0.95	>0.9
Tucker Lewis index (TLI)	0.86	0.94	>0.9
Normed fit index (NFI)	0.81	0.91	>0.9
Root mean square error of approximation (RMSEA)	0.069	0.062	<0.060

Path	First model			Second model		
	Estimate	t-value	p-value	Estimate	t-value	p-value
Procedural justice → job satisfaction	0.14	1.45	.0950			
Distributive justice → job satisfaction	0.22	3.38	.001	0.24	3.81	.001
Interactional justice → job satisfaction	0.34	4.11	.001	0.44	6.35	.001
Job satisfaction → Intention to leave	-0.70	-11.58	.001	-0.71	-11.59	.001

TABLE 3 Standardized SEM estimates-t values and p-value

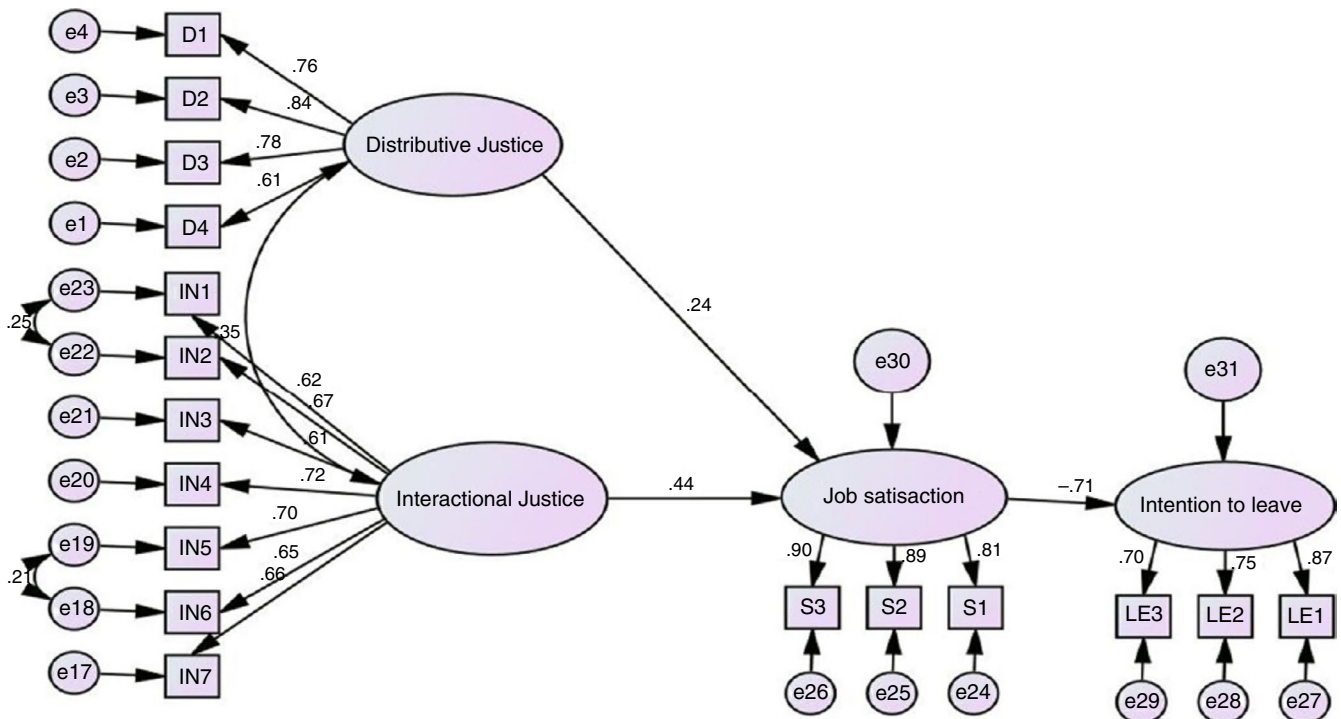


FIGURE 2 The mediating effect of job satisfaction between justice dimensions (distributive and interactional) and intention to leave

words, the nurses' perception of distributive and interactional justice increased their job satisfaction. Interactional justice had a more significant association with the job satisfaction of the nurses ($p < .001$; $t = 6.35$; $\beta = 0.44$) compared with distributive justice ($p < .001$; $t = 3.81$; $\beta = 0.24$) and could better explain the variance of job satisfaction. On the other hand, job satisfaction was negatively correlated with the intention to leave ($p < .001$; $t = -11.59$; $\beta = -0.71$), indicating that the job satisfaction of the nurses significantly decreased their intention to leave their profession (Table 3).

4 | DISCUSSION

The present study aimed to evaluate the use of the modified version of the turnover model proposed by Alexander et al. (1998), which is applied for the prediction of the intention of nurses to leave their

professions in hospital settings. Our findings provide the empirical support for a comprehensive explanation of the differences in the dimensions of organizational justice and their impact on the job satisfaction of nurses, which shape their attitudes towards their profession, and the effect of these attitudes on their decision-making, increased or decreased intention to leave and the ultimate leaving of the nursing profession. The proposed model had adequate fit, while the specific path adjustments enhanced the model fit according to the expected values of the fit indices.

According to the results of the present study, the most significant difference between the proposed model and final model was the elimination of procedural justice due to the lack of strong, significant correlations with job satisfaction and intention to leave, which in turn enhanced the model fit. In addition to statistical reasons (maximizing the model fit), the decision to eliminate procedural justice also had a conceptual basis. All the three dimensions of

organizational justice are important predictors of work outcomes (Greenberg, 1987). Many researchers believe that procedural justice is mostly associated with organization-related outcomes and attitudes (Folger & Konovsky, 1989; Lind & Tyler, 1988). While distributive and interactional justice are more important predictors of individual outcomes, such as the intention to leave and job satisfaction (McFarlin & Sweeney, 1992). For instance, previous findings have indicated that fairness in procedures is an appropriate explanatory variable for organizational citizenship behaviour (Moorman, 1991; Moorman et al., 1993). In the study by Nadiri and Tanova (2010), distributive justice and interactional justice were more strongly correlated with job satisfaction compared with procedural justice and procedural justice had a negligible effect on job satisfaction (Nadiri & Tanova, 2010). In the study by Yanchus et al. (2015) regarding the mental health of employees, procedural justice was reported to have a weak association with the intention of the participants to leave their profession and their job satisfaction.

According to the results of the present study, procedural justice was not as potent as distributive and interactional justice in predicting the intention to leave and job satisfaction in the nurses. The role of fair and respectful interpersonal behaviours and justice in the distribution of payments and rewards is crucial in job satisfaction and intention to leave. Furthermore, interactional justice was a stronger explanatory variable compared with distributive justice in terms of the job satisfaction of the nurses. Therefore, it could be inferred that the type of interactions with nurses has a more significant impact on increasing their job satisfaction and reducing their intention to leave compared with the distribution of rewards and fair procedures. Many decision-makers make the most of their efforts to have fair characteristics and decisions, while it seems that nurses prefer being treated with fairness in interpersonal relationships by decision-makers rather than through fair procedures.

In this regard, Eidukaite (2016) stated that interactional justice has the strongest impact on overall job satisfaction (Eidukaite, 2016), which could be explained by the group-value model (Lind & Tyler, 1988; Tyler, 1989). This model proposes that treatment quality matters to individuals since it provides relational information about their position in a valued group, which in turn forms their self-concept. On the other hand, interactional justice makes individuals feel valued and involved in the group, while the nature of formal procedures is static and objective. Interactional justice also provides individuals with information about their status in the group through social interactions. For instance, if a person is treated with respect and consideration, this conveys high status in the group; on the contrary, disrespect for the individual leads to their low status in the group (Lind & Tyler, 1988; Tyler, 1989). Given the nature of teamwork in nursing, it seems that nurses are more interested in interactional justice to find that they are in a high position in their group and workplace.

Our findings indicated that job satisfaction played a pivotal role in the decision-making process in the proposed model, which could increase or decrease the intention to leave. Empirical support for our

model provides evidence-based instructions for nursing managers, so that their efforts would be directed towards creating a fair work environment to increase the job satisfaction of nurses and retain the current nursing staff. Moreover, nursing managers must be aware of the consequences of the nurses' perceptions of justice and the subsequent effects on their job satisfaction, intention to leave and other outcomes, such as the decreased quality of care services and patient satisfaction. Therefore, the sole focus of nursing managers on fair human resource management may not suffice in this regard and the results of these procedures and outcomes should also be fair. Not only do nurses seek fair procedures, but they also need to receive equitable rewards and be treated fairly and respectfully in their interpersonal relations.

4.1 | Limitations

Our findings should be interpreted in the light of several limitations. Considering the cross-sectional design of the study, the follow-up of the participants and estimation of the turnover rate and its association with the intention to leave was not possible. In addition, the data collection tool was a self-report questionnaire, which might have caused social desirability bias (Zerbe & Paulhus, 1987). Since the questionnaires were completed by the participants anonymously and the nurses delivered the questionnaires in an envelope during the data collection process, it seems that the issue had a negligible impact on the final results. The participants were selected from the nurses employed in the governmental hospitals affiliated to one of the universities of medical sciences in Tehran, Iran. Therefore, the findings should be cautiously generalized to other settings and nurses of private hospitals. The large sample size and sampling of the nurses across various healthcare organizations could enhance the generalizability of the findings. Finally, limited studies have addressed the role of the dimensions of organizational justice in the intention to leave and job satisfaction of nurses, which made it difficult to further discuss and compare the research results.

5 | CONCLUSION

This study provided a theoretical and practical framework for predicting the intention to leave in nurses based on the concepts of organizational justice and job satisfaction. According to the results, interactional justice and distributive justice were, respectively, the most important dimensions of organizational justice in explaining the job satisfaction of the nurses. These dimensions of justice also formed the nurses' attitude towards their job and organization by influencing their job satisfaction. The attitudes of individuals explain the decision-making processes regarding the retention or leaving of a profession. Therefore, nursing managers should further emphasize fair outcomes and interactions with nurses rather than fair procedures only. Our findings provide valuable references for nursing managers to increase the job satisfaction and retention of nurses in healthcare settings.

Furthermore, the results of this study could shed light on new research areas. The proposed model could also be developed with the addition of new outcome variables, such as the quality of care, treatment compliance, and satisfaction and fairness perceptions in patients. Similar longitudinal studies could be performed to assess the correlation between the intention to leave and turnover rate in nurses so as to further develop the proposed model in this study.

CONFLICT OF INTERESTS

No conflict of interest has been declared by the authors.

AUTHOR CONTRIBUTIONS

All authors have agreed on the final version and meet at least one of the following criteria (recommended by the ICMJE [<http://www.icmje.org/recommendations/>]):

1. substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data;
2. drafting the article or revising it critically for important intellectual content.

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