



The Relationship Between Perceived Organizational Justice with Organizational-Citizenship Behavior and Organizational Trust Among Iranian Surgical Technologists in Iran University of Medical Sciences in 2021

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Abstract

Background: The organizational-citizenship behavior and organizational trust change the behaviors and attitudes and can also improve performance and efficiency among nurses as the team working incentives. Numerous environmental and occupational factors can affect the mentioned variables in employees but organizational justice, among other factors, exert a significant impact in this regard.

Objectives: The present study aimed to investigate the relationship between perceived organizational justice with organizational-citizenship behavior and organizational trust among Iranian surgical technologists at Iran University of Medical Sciences (IUMS) in 2021.

Methods: In this descriptive-analytical and cross-sectional study, 183 surgical technologists of IUMS were investigated, and, therefore, the sampling method was census. Data collection tools were as follows: (1) Demographic characteristics questionnaire; (2) Niehoff and Moorman organizational justice questionnaire; (3) researcher-developed organizational-citizenship behavior scale; and (4) Gary A. Roeder Organizational Trust Questionnaire. Descriptive statistics (mean \pm standard deviation; frequency and percentage), Pearson's correlation coefficient, and multiple regression were performed to analyze the data by using SPSS software version 22.

Results: Overall, the perceived organizational justice was poor, whereas the organizational-citizenship behavior and organizational trust were moderate. There was a positive and statistically significant correlation between organizational justice and citizenship-organizational behavior ($r = 0.79$), ($P < 0.001$). The same association was also observed between perceived organizational justice and organizational trust ($r = 0.87$), ($P < 0.001$). Moreover, 50% of the changes in perceived organizational justice, 67% in organizational trust, and 75% in organizational-citizenship behavior may have been explained and justified by demographic variables.

Conclusions: It was concluded that citizenship-organizational behavior and organizational trust in surgical technologists may have been increased by taking appropriate interventions such as increasing the perception of organizational justice as well as improving the performance and quality of services in hospitals.

Keywords: Perceived Organizational Justice, Organizational-Citizenship Behavior, Organizational Trust, Surgical Technologists, Health Managers

1. Background

Nowadays, achieving the organizational goals greatly depends on proper performance of the employees (1). Management experts argue that human resource (HR) is the main asset of any system and organization (2). This issue gains an added importance when the subject matter is service organizations such as hospitals which deal with the

health and treatment of people in the community (3). For many years, justice has been among the most fundamental issues in human life, and the methods by which it was achieved and implemented have been of great importance (4). The term organizational justice was coined by Greenberg, and it means fair and equitable behaviors of organizations towards their employees (5). Three types of organizational justice have been identified by researchers and

organizational theorists, which include procedural, transactional, and distributive justice (6, 7). Procedural justice is defined as the perception of fairness of the decisions made by those affected with the allocation of benefits or compensation. Interactional justice refers to people's perception of the quality of behaviors while performing organizational procedures. Distributive justice is perceptible provided that rewards and benefits are fairly allocated in addition to fair payments (8). This former dimension of justice is rooted in Adams' equity theory (9). According to this theory, if the employees find that there is no fair equilibrium between the time and effort they put in to perform their duties and the salary they receive from the organization, then they attempt to compensate this injustice by making changes in their behavior and, therefore, the quality of work done by them is affected (9). In this regard, Wong et al. as cited in Ayub et al. argue that reducing nurses' perceptions of organizational justice and low trust among colleagues double the risk of infection in patients because these factors affect the behavior of employees and lead to inattention to patient's clinical conditions (10). Another factor influencing the success and productivity of an organization is organizational citizenship behavior, which is related to the role of HR in performing tasks beyond organizational expectations (11). The concept of organizational citizenship behavior was first introduced and defined by Organ and Konovsky (12). According to Organ and Konovsky, organizational citizenship behavior is an individual and voluntary behavior that is not designed directly by the official reward and punishment systems in the organization but rather promotes the effectiveness and efficiency of the organization's performance (12). Employee citizenship behavior has a significantly positive effect on the level of individual and organizational performance of employees (13). In this regard, the results of a recent study in Wuhan, China, have shown that an appropriate organizational citizenship behavior is effective in promoting work engagement, optimism in the workplace, and focus on the tasks, generally improving the efficiency of organization and the quality of nurses' work (14). Another important and key variable in this research is organizational trust of employees. In an attempt to offer a comprehensive definition, Shockley-Zalabak et al. define trust as "believing in close friends and others because we are dependent on others to achieve our request and desire" (15). They describe the construct of organizational trust as positive expectations individuals hold about the intent and behaviors of multiple organizational members based on experiences, organizational roles, relationships, and interdependencies (15). In recent years, trust has received considerable research attention in order to assure the success of organizations (16, 17). Tabarsa et al. have shown that orga-

nizational justice is one of the factors positively contributing to the employees' confidence (18).

Operating room is one of the most complex work environments in health care system, management of which requires state-of-the-art technology as well as specialized knowledge and great competence of the managing and coordinating members. Taking into account the fact that the operating room is a vital part of any hospitals and the staff of operating room wards are always exposed to environmental risk, job burnout, and the like, investigating job-related behaviors of the employees working in the room is of greatest importance. Given the importance of organizational citizenship behaviors in developed and developing countries, as well as the effects of such employees' behaviors on the performance of organization, it is necessary to determine the relationship between job behaviors and organizational factors and, especially, to investigate the variables such as perception of justice and organizational trust.

2. Objectives

Therefore, the present study aimed to investigate the relationship between perceived organizational justice with organizational-citizenship behavior and organizational trust in surgical technologists of IUMS in 2020.

3. Methods

3.1. Study Design, Sample Size, and Participants' Characteristics

As for the study population, all "surgical technologists" working in teaching and medical hospitals affiliated to IUMS in 2020 participated in this descriptive-analytical and cross-sectional study, and, therefore, the sampling method was census. The sample size was estimated based on multiple regression model and the following formula:

$$n = p + 1 + \frac{z_{\frac{\alpha}{2}}^2 (1 - R^2)}{\Delta r_j^2} \quad (1)$$

Thus, the required sample size was calculated using the above formula in order to conduct a regression model with independent variable P and a significance level of 5%:

$$z_{\frac{\alpha}{2}} = 1.96 \quad (2)$$

Furthermore, the expected regression coefficient was the minimum amount of the change expected to occur as a result of adding the last variable, which is usually estimated based on the results from previous studies. In the present study, no such estimation was carried out based on previous studies. The value of Δr_j^2 is assumed to be 2%,

and the expected regression coefficient of R^2 is even considered 40%; and the required sample size is equal to 121 individuals. In this study, sampling of surgical technologists was performed by adopting stratified sampling method and considering the design effect equal to 1.5. As the result, the final sample size was increased to 183 surgical technologists.

The research setting for the present study was operating rooms of the following teaching and medical hospitals affiliated to IUMS: Firoozgar ($n = 26$), Hazrat Rasoul Akram ($n = 19$), Hazrat Fatemeh ($n = 16$), Shahid Motahhari ($n = 16$), Shahid Hasheminejad ($n = 15$), Shahid Rajaei ($n = 22$), Hazrat Ali Asghar ($n = 16$), Shafa Yahyaian ($n = 19$), Firoozabadi ($n = 18$), and Haftom-e-Tir ($n = 16$). The inclusion criteria for the surgical technologists in the present study were as follows: (1) Willingness to participate in research and complete the informed consent form; (2) having at least 1 year of work experience in the operating room of the relevant hospitals; (3) holding a bachelor's or technician degree in operating room technology; (4) not having experienced stressful situations such as divorce and death of family members or loved ones in the last six months; and (5) not having afflicted with chronic psychosomatic diseases in the last six months. The exclusion criteria, on the other hand, were the unwillingness to participate in research, as well as the failure to complete the informed consent form or fill the questionnaires completely.

3.2. Ethical Considerations

(1) The study objective was disclosed and explained to all selected surgical technologists.

(2) Arrangement with and permission from the relevant officials of Iran health hospitals were made and obtained.

(3) Informed written consent was obtained from the participants in the study.

(4) Participants were asked to complete the questionnaires anonymously, and they were assured that their information would be kept confidential by the researcher.

3.3. Study Implementation Process

The protocol of the study was approved by the ethical committee of IUMS under [IR.IUMS.REC.1398.1286](#) code. After obtaining the necessary permits and making arrangement with managers of the relevant hospitals, the necessary measures were taken to ensure the arrangement of the hospital management with matrons of the operating rooms by referring to the study environment. Due to the special conditions associated with COVID-19 and the limitations imposed on communication with selected surgical technologists, the researchers created an URL link in

Google for all the relevant questionnaires. After making a phone call and stating the objectives of the study, the researchers shared the relevant link address with the selected surgical technologists and instructed them on how to respond to questionnaire items and complete the informed consent form. All surgical technologists were asked to refer to the relevant site at an appointed time and complete the specified questionnaires. Finally, their responses to the questionnaire were coded and analyzed in SPSS software version 22 using standard statistical tests.

3.4. Instruments

The tools employed in the present study included four questionnaires as follows:

(1) Demographic characteristic questionnaire: This questionnaire contained information such as gender, age, work experience, field of work, and type of shift work. These variables were selected according to the corrective opinions of the faculty members of operating room department at IUMS.

(2) Niehoff and Moorman organizational justice questionnaire: This questionnaire had 20 questions and included three components: "distributive justice", "procedural justice" and "interactive justice". The questionnaire score was calculated based on a five-point Likert scale ranging from strongly disagree, disagree, no opinion, agree, and strongly agree. The scores in this questionnaire ranged from 20 to 100; the higher an individual's score, the higher the organizational justice perceived by him/her. A score of 20 - 46 was indicative of a low organizational justice, 47 - 74 a moderate organizational justice, and 75 - 100 a high organizational justice (19). Content validity ratio for Niehoff and Moorman organizational justice questionnaire in the item "relevance" value was (86.54%); in "clarity" value item (82.32%); and in "simplicity" item (81.56%). Cronbach's alpha was calculated (0.93) to determine the reliability of the given questionnaire. Alpha values in the "procedural justice" dimension, distributive justice dimension, and interactive justice subscale dimension were (0.84), (0.89), and (0.92), respectively (20).

(3) Researcher-developed, organizational-citizenship behavior scale: Although various standard questionnaires for investigating "organizational citizenship behavior of employees" had been designed and used by various researchers, a decision was made to design a novel organizational citizenship behavior questionnaire for surgical technologists in this study according to the statistical population of the research. Taking into account the theoretical foundations of the subject and the application of changes in the existing standard questionnaires, therefore, a researcher-developed organizational-citizenship behavior scale was designed to measure the

organizational citizenship behavior. This scale comprised of five components: (1) Altruism; (2) work conscience; (3) chivalry; (4) politeness; (5) social etiquette (civic virtue). The score range in this questionnaire was 34 - 170, and its response range was five-point Likert scale from very low, low, medium, high, and very high. The scores of all the questions were intended to be added together later to calculate the high scores; the higher the score, the better the organizational citizenship behavior for surgical technologists. Content validity ratios for researcher-developed organizational-citizenship behavior scale for all dimensions were estimated as follows: Altruism: 0.78; work conscience: 0.79; chivalry: 0.80; politeness: 0.82; and social etiquette (civic virtue): 0.81. Total Cronbach's alpha was calculated (0.81) to determine the reliability of the mentioned questionnaire. The Cronbach's alpha for sub-items such as altruism, work conscience, chivalry, politeness, social etiquette were 0.78, 0.79, 0.80, 0.86, and 0.82, respectively.

(4) Gary J. Ruder Organizational Trust Questionnaire: This questionnaire consisted of 34 questions and three components: Trust in the manager, trust in the colleagues, and trust in the organization. In this questionnaire, the five-point Likert scale from very low, low, medium, high, and very high was adopted. The minimum and maximum possible scores were 34 and 170, respectively. Content validity ratio for Gary J. Ruder Organizational Trust Questionnaire for all dimensions was estimated as follows: Trust in the manager (0.86), trust in the colleagues (0.91), and trust in the organization (0.89). Cronbach's alpha was calculated (0.83) to determine the reliability of the mentioned questionnaire (21).

3.5. Statistical Analysis

Statistical analyses were conducted using Statistical Package for Social Science (SPSS, Version 22; IBM Corp., Armonk, NY, USA). Descriptive statistics was computed for all variables, including mean \pm standard deviation for the continuous variables and frequencies for the categorical variables. Pearson's correlation coefficient, analysis of variance, and regression were used as inferential statistics tests. A $P < 0.05$ was considered as the statistically significant value.

4. Results

The demographic characteristics of 183 surgical technologists (63.4% males) in our cross-sectional study are presented in Appendix 1. The highest age group frequency was recorded for surgical technologists aged 20-30 years (56.3%), whereas the lowest one was detected for those technologists aged 41 - 50 years (14.2%). The highest frequency

of work experience was < 5 years (49.2%), while the lowest one was between 21 - 25 years (5.5%). The majority of the surgical technologists worked in the field of general surgery (25.7%), and small number of them worked in the field of pediatrics (2.7%). Also, a majority of the samples under study worked in circulation shift (86.9%), whereas small number of them worked in night shift (2.2%), and no one was active in the evening shift.

Based on the designed hypotheses, the results of the present study were as follows:

Hypothesis No. 1: Perceived organizational justice was associated with organizational citizenship behavior of surgical technologists working in the teaching hospitals of IUMS.

Table 1 shows the relationship between perceived organizational justice and organizational citizenship behavior of surgical technologists in the present study. The mean score and standard deviation of organizational justice and organizational citizenship behavior were 45.68 ± 18.53 and 89.73 ± 22.25 , respectively. Taking into account the range of scores in the organizational justice questionnaire (i.e., 20 - 100) and the median score of this tool (i.e., equal to 60), it was concluded that the perceived organizational justice in the present study was poor. Considering the range of scores for the organizational citizenship behavior questionnaire (i.e., 30 - 150) and the median score of this tool (i.e., equal to 90), moreover, it was inferred that these main variables in our study also were moderate. There was a positive and statistically significant correlation between the organizational justice and citizenship-organizational behavior ($r = 0.795$), ($P < 0.001$).

Hypothesis No. 2: Perceived organizational justice was associated with the organizational trust of surgical technologists working in the teaching hospitals of IUMS.

Table 2 presents the relationship between perceived organizational justice and organizational trust of surgical technologists in the present study. The mean and standard deviation of the organizational trust score was 105.35 ± 8.60 . Considering the range of scores for the organizational trust questionnaire (i.e., 34-170) and a median score of 102, it was found that these main variables in our study were moderate. There was a positive and statistically significant correlation between the organizational justice and organizational trust ($r = 0.872$) ($P < 0.001$).

Hypothesis No. 3: Perceived organizational justice was associated demographic characteristics (i.e., age, gender, work experience, field work, and shift work) of surgical technologists working in the educational and medical centers of IUMS. The Pearson's correlation coefficient for perceived organizational justice with the demographic characteristics was 0.70. In total, 50% of changes in perceived organizational justice may have been explained and justi-

Table 1. The Relationship Between Perceived Organizational Justice and Organizational Citizenship Behavior of Surgical Technologists

Variables	Mean ± Standard Deviation	R ^a	df	P-Value
Perceived organizational justice	45.68 ± 18.53	0.795	181	< 0.001
Organizational citizenship behavior	89.73 ± 22.25			

^a Pearson correlation coefficient.

Table 2. The Relationship Between Perceived Organizational Justice and Organizational Trust of Surgical Technologists

Variables	Mean ± Standard Deviation	R ^a	df	P-Value
Perceived organizational justice	45.68 ± 18.53	0.872	181	< 0.001
Organizational trust	105.35 ± 11.25			

^a Pearson correlation coefficient.

fied by demographic variables such as age, gender, work experience, field work, and shift work (Tables 3 and 4).

The comparison of mean and standard deviation of various dimensions of perceived organizational justice with demographic variables in surgical technologists of the present study is presented in Appendix 2. There were statistically significant differences among the mean dimensions of distributive, procedural, and interactive justice for both males and females, as well as for all age groups, all work experiences, all fields of work, and all shift works of surgical technologists ($P < 0.001$ for all). The results also demonstrated that the interactive justice dimension had a higher average than other dimensions of justice, with a mean of 29.37 among males. This dimension, with an average of 31.64 in the age group of 41 - 50 years, also had a higher mean than other age groups. The dimension of interaction justice with an average of 31.35 in surgical technologists with 16 - 20 years of work experience had a higher average than other dimensions. This dimension of justice, with an average of 33.83 showed a higher average in the field of ear, nose and throat surgery than other fields of work. Also, the interaction of justice dimension with an average of 23.64 had a higher average in circulation shifts than other shifts in the surgical technologists under study.

Hypothesis No. 4: The organizational-citizenship behavior was associated with the demographic characteristics (i.e., age, gender, work experience, field work, and shift work) of surgical technologists working in the teaching and medical hospitals of IUMS. Pearson's correlation coefficient for organizational-citizenship behavior with the demographic characteristics was 0.63. In total, 75% of the changes in perceived organizational justice may have been explained and justified by demographic variables like age, gender, work experience, field of work, and shift work (Tables 5 and 6).

The comparison of mean and standard deviation of various dimensions of organizational-citizenship behav-

ior with demographic variables in surgical technologists of the present study is presented in Appendix 3. There were no statistically significant differences among the mean dimensions of altruism, work conscience, chivalry, social etiquette, and politeness in both males and females; as for other dimensions, however, statistically significant differences were discovered ($P < 0.001$ for all). Also, the dimension of work conscience in the age group of 41 - 50 years, with an average of 22.76 had a higher mean than those in other age groups. This dimension with an average of 23.87 in surgical technologists with 16 - 20 year of work experience had a higher mean than other dimensions. This dimension, with an average of 24.66 had a higher average in the field of ear, nose, and throat surgery than other fields of work. Furthermore, the work conscience dimension with an average of 20.34 had a higher mean in circulation shifts than other shifts in the surgical technologists under study.

Hypothesis No. 5: The organizational trust was associated with the demographic characteristics (i.e., age, gender, work experience, field work, and shift work) of surgical technologists working in the educational and medical hospitals of IUMS. Pearson's correlation coefficient for organizational trust with the demographic characteristics was 0.82. In total, 67% of the changes in perceived organizational justice may have been explained and justified by demographic variables such as age, gender, work experience, field work, and shift work (Tables 7 and 8).

The comparison of mean and standard deviation of various dimensions of organizational trust with the demographic variables in surgical technologists of the present study is presented in Appendix 4. There were significant differences among the mean dimensions of trust in the manager, trust in colleagues, and trust in the organization in both males and females; as for other dimensions, however, significant differences were observed ($P < 0.001$ for all). Also, the dimension of trust to the colleagues with an average of 46.48 in the age group of 41 - 50 years had

Table 3. Summary of the Multivariate Modeling Fitness for the Relationship Between Perceived Organizational Justice and Demographic Characteristics of Surgical Technologists

Durbin-Watson Statistic	Standard Error	Adjusted R	Crude R	R ²
1.70	0.30	0.48	0.70	0.50

Table 4. Summary of the Multivariate Modeling Fitness for the Relationship Between Perceived Organizational Justice and Demographic Characteristics of Surgical Technologists

Model	Beta Coefficient	Standard Error	T Statistic	P-Value
Constant	0.130	0.64	0.67	0.500
Gender	0.09	3.38	0.69	< 0.001
Age	0.26	1.72	2.05	0.491
Work experience	0.18	0.59	2.67	0.041
Field of work	0.190	1.10.3	3.309	0.008
Shift work	0.236	2.692	3.365	< 0.001

Table 5. The Relationship Between Organizational-Citizenship Behavior and Demographic Characteristics of Surgical Technologists

Durbin-Watson Statistic	Standard Error	Adjusted R	Crude R	R ²
1.57	0.13	0.62	0.63	0.75

Table 6. Summary of the Multivariate Modeling Fitness for the Relationship Between Organizational-Citizenship Behavior and Demographic Characteristics of Surgical Technologists

Model	Beta Coefficient	Standard Error	T Statistic	P-Value
Constant	14.29	4.87	5.84	< 0.001
Gender	0.037	3.53	0.037	0.760
Age	0.36	1.86	3.23	< 0.001
Work experience	0.29	0.82	4.69	< 0.001
Field of work	0.29	1.20	5.80	< 0.001
Shift work	0.22	2.99	3.83	< 0.001

Table 7. The Relationship Between Organizational Trust and Demographic Characteristics of Surgical Technologists

Durbin-Watson Statistic	Standard Error	Adjusted R	Crude R	R ²
1.57	6.57	0.66	0.82	0.67

Table 8. Summary of the Multivariate Modeling Fitness for the Relationship Between Organizational Trust and Demographic Characteristics of Surgical Technologists

Model	Beta Coefficient	Standard Error	T Statistic	P-Value
Constant	24.22	5.78	182.4	< 0.001
Gender	0.03	0.01	0.025	0.980
Age	0.36	0.14	3.78	< 0.001
Work experience	0.25	0.18	4.48	< 0.001
Field of work	0.38	0.19	6.20	< 0.001
Shift work	0.23	0.15	4.30	< 0.001

a higher mean than other age groups. The dimension of trust to the colleagues with an average of 48.31 in surgical technologists with 16 - 20 year of work experience had a higher mean than other. This dimension of trust to the colleagues with an average of 51.87 had a higher average in the field of ear, nose, and throat surgery than other fields of work. Moreover, the dimension of trust to colleagues with an average of 41.46 had a higher mean in circulation shifts than other shifts in surgical technologists under study.

5. Discussion

Given that service organizations such as hospitals are at the forefront of service delivery in communities, developing plans aimed at promoting manpower and identifying weaknesses and strengths has always been one of the main priorities and concerns of policymakers and planners at both micro and macro levels in the organizational field (22). In this regard, the results of the present study may have proven useful in designing more practical plans for any organizations in the community.

Our finding showed that the perceived organizational justice in the present study was not satisfactory. This result was in line with findings reported by Ali (23) and Seyedin et al. (24). On the other hand, this result was inconsistent with the results reported by Zamani and Tahmasbi (25) and Rahmani et al. (26), who documented a moderate organizational justice for their population under study. Our results also revealed that the organizational-citizenship behavior and organizational trust in surgical technologists under study were moderate. The mean score of organizational trust in the present study was comparable with the mean score reported by Alazmi and Alenezi (27) and Tabarsa et al. (18); in a study conducted by Rahmani et al., however, a higher mean score had been recorded for the organizational trust. The mean score of organizational citizenship behavior in the present study was consistent with that found by Rahmani et al. (26), but it was inconsistent with mean scores of organizational citizenship behavior reported by Bahrami et al. (28) and Dargahi (29). These differences may have been due to variation in the type of populations under study, the tools used for measurement, sample size, as well as the difference in the organizational culture of the studied hospitals.

Our results indicated that there was a positive and statistically significant correlation between organizational justice and citizenship-organizational behavior ($r = 0.79$), ($P < 0.001$) (i.e., the higher the perceived organizational justice, the higher the score of organizational citizenship behavior of surgical technologists) (Table 1). The same association was also observed between perceived organizational justice and organizational trust ($r = 0.87$), ($P <$

0.001) (i.e., the higher the perceived organizational justice, the higher the score of organizational trust of surgical technologists) (Table 2). Furthermore, 50% of changes in perceived organizational justice (Tables 3 and 4), 67% of changes in organizational trust (Tables 7 and 8), and 75% of changes in organizational-citizenship behavior may have been explained and justified by demographic variables (Tables 5 and 6).

Since organizational justice can be indicative of the organization's importance to its employees, the increase in individuals' perception of justice makes them feel reciprocal responsibility towards their organization and officials and, therefore, encourages them to do their best to compensate. This compensation can be expressed by different ways, such as reinforcing positive behaviors, helping colleagues, improving the quality of patient care, participating in organizational activities, etc. When individuals' perception of organizational justice is improved and, subsequently, the organizational citizenship behavior of them is reinforced, the interaction and teamwork among them are enhanced, and, as a result, the quality of patient care and patient satisfaction of the health services provision are increased.

According to the results of the present study (Appendix 2), the perception of justice was significantly higher in men than in women. Although the relationship between gender and organizational citizenship behavior was not significant (Tables 5 and 6), the average score of organizational citizenship behavior was higher in men than in women. The increase in perception of justice among men may have enhanced the level of organizational citizenship behavior in them. With the increase in work experience, moreover, the average score of organizational justice, organizational citizenship behavior, and organizational trust in all dimensions increased (Appendix 2, 3, and 4). This may have been attributed to the fact that the organization paid more attention to surgical technologists through promoting their job status as well as increasing their salaries and benefits due to their greater work experience. In order to enhance the given relationship, however, it was strongly recommended that the principles of professional ethics should be offered in the form of a separate university course for students, and that the behaviors such as altruism, chivalry, work conscience, and respect for surgical technologists should be further promoted by increasing the perception of justice. The relationship between perceived organizational justice and organizational citizenship behavior in the present study was consistent with that identified in previous studies by Rahmani et al. (26), Metwally et al. (30), and Chen et al. (31).

Contrary to the findings of the present study, the organizational justice was not associated with any of the de-

mographic variables identified by Tourani et al. (32). In a study by Rakhshany Zabol et al. (33), organizational justice was found to be related to employment status and shift work. This may have been attributable to the fact that the differences in personality traits of people in different hospitals affect the way they perceive justice. In addition, factors such as differences in the type of employment and organizational culture of the studied hospitals affect the attitude and perception of people about justice (34). Overall, our study results may have proven practical and efficient from the managerial and clinical aspects.

5.1. Study Limitations

This study had some limitations. First, the present study was conducted during COVID-19 pandemic period. Due to special conditions, traffic prohibitions and related problems, it was not possible to visit specified teaching hospitals affiliated to IUMS to collect data about surgical technologists. To address this problem, however, electronic questionnaires were developed by the research team to collect data via an online system. Second, this study was a descriptive-analytical and cross-sectional study and, therefore, the relationship between perceived organizational justice with the organizational-citizenship behavior and the organizational trust among surgical technologists was found to be poor. Prospective analysis, which includes follow-up data, was required to confirm this relationship. Third, since the statistical population of the present study included surgical technologists working in teaching and medical hospitals of IUMS, the results of present study cannot be generalized to other organizations and occupational groups. Thus, it was recommended that this important issue should be investigated in other occupational groups.

5.2. Conclusions

In sum, the perceived organizational justice was poor, and organizational-citizenship behavior and organizational trust were moderate. To improve citizenship-organizational behavior and organizational trust among surgical technologists, therefore, it was recommended that health managers should make appropriate interventions by increasing the perception of organizational justice and improving the performance and quality of the services in hospitals.

Supplementary Material

Supplementary material(s) is available [here](#) [To read supplementary materials, please refer to the journal website and open PDF/HTML].

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Footnotes

Authors' Contribution: Study concept and design: S. H. and F. M.; acquisition of data: F. M. and F. A.; analysis and interpretation of data: F. A. and N. A.; drafting of the manuscript: S. H. and F. M.; critical revision of the manuscript for important intellectual content: F. A. and N. A.; statistical analysis: F. A. and N. A.; administrative, technical, and material support: S. H. and N. A.; study supervision: S. H.

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Informed Consent: The participants were informed about the study, and informed consent was obtained from them.

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