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Influence of Perceived Organizational Injustice on Workplace Alienation among Nursing Staff during COVID-19 Pandemic

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ABSTRACT

Background: During the ongoing COVID-19 crisis, healthcare organizations are still fighting to retain nursing staff by reducing intense workload and sustaining workplace justice in order to avoid nursing staff burnout, turnover, and alienation. **Aim**: This research aimed to identify the influence of perceived organizational injustice on workplace alienation among nursing staff during COVID-19. **Design**: A descriptive, correlational research design was utilized to achieve the aim of the study. **Settings**: It was conducted in intensive care units (ICUs) and inpatient wards for males and females at Tanta Main University Hospital and Al-Minshawi General Hospital. **Subjects**: It contained a convenience sampling of 508 nursing staff. **Tools**: It compromised two instruments; the first tool, entitled perceived organizational injustice, which included socio-demographic data of nursing staff and four dimensions of distributive, procedural, informational, and interpersonal injustice (20 items). The second tool, entitled workplace alienation factors, contained three factors of powerlessness, self-estrangement, and meaninglessness (29 items). **Results**: This research showed that the overall nursing staff's perceptions of organizational injustice and workplace alienation were significantly high. The dimensions of organizational injustice were positively correlated with all the factors of workplace alienation. **Conclusion:** It verified that the dimensions of organizational injustice were discovered to have a substantial impact on the predicted variance of workplace alienation among nursing staff. **Recommendations**: This research recommended that hospital administrators need to state a clear grievance procedure, as well as nursing researchers, need to conduct a longitudinal study or qualitative study to assess the consequences of organizational injustice and workplace alienation.

Keywords: COVID-19 pandemic, nursing staff, organizational injustice, work alienation.

Introduction

I. Introduction

The coronavirus disease (Covid-19) has been confirmed by the World Health Organization (WHO) as an international public health emergency problem, which is a new and hazardous virus that has never been seen before (WHO 2020a; WHO 2020b). The COVID-19 pandemic has already spread to 221 countries and territories worldwide. On September 16, 2021, it infected about 227,752,645 people, resulting in over 4,681,444 deaths and economic devastation (ILO 2020; Rose et al. 2021). An unbelievably high number of confirmed and suspected cases, a high burden of workload, understaffing, elevated risk of infection, insufficient personal protective equipment, stigmatization of disease, lack of particular medications, and an unsupportive work environment may all contribute to the emotional strain on nursing staff (NS) (Lai et al. 2020; Liu, et al. 2020; Lasater et al. 2021).

Globally, nursing staff are the front-line and target group of a health care delivery system that determines whether a hospital will survive or fail (Valikhani and Zamani 2019; Hu et al. 2020). In this critical situation, nursing staff are directly involved in the diagnosis, treatment, and care of COVID-19 patients, which necessitates a high level of competencies, intense work concentration, strong teamwork, and 24-hour care (Lai, 2020; Zandiana et al. 2021). Recent literature displayed widely spread symptoms of anxiety, panic disorder, depression, sleep disturbance, irritability, anger, suicidal behavior, stress, presenteeism, and work isolation among health care professionals especially nursing staff during this pandemic (Souza et al. 2021). The hospitals were fighting to overcome these manifestations through achieving organizational justice and obtaining nursing professionalism during the outbreak of Covid-19 (Zandiana, et al. 2021).

Organizational injustice was defined as the perception of how fairly or unfairly healthcare organizations treat nursing personnel based on ethics, law, or religion across various contexts and cultures (Durrah 2020; Hashish 2020). It is one of the essential elements in supporting the improvement of both the organization and its staff, which are considered indicators of health workforce performance and hospital operational efficiency (Mohamed et al. 2018). Organizational injustice has three dimensions; including distributive, procedural, and interactional (Omar et al. 2018).

Distributive injustice describes the nurses' perception of unfairness in comparison to other peers in the agency who have the similar responsibilities concerning salary, promotions, rewards, appreciation, rewards, authority, training opportunities, and reputation (Ghasi et al. 2020). It specifically addresses the degree to which outcomes are unequitable (Nidhi and Kumari 2016). The nursing staff assesses the fairness of an outcomes distribution by comparing their own input-output ratio to that of others (Srivastava 2015; Mengstie 2020).

The dimension of procedural injustice reveals the nurses' extent of unfairness pertaining to the process and procedures that are used to make decisions on how outcomes are distributed and to whom the outcomes are offered (Srivastava 2015). Procedural justice is the seeming fair process of regulating distributive awards (Dajani and Mohamed 2017). Therefore, it concerns the process of regulating distributive awards, such as monetary or non-monetary advantages, such as money or non-monetary benefits. In other words, implicit distributive justice is the end goal of achieving fairness, whereas procedural justice is the means to achieve this goal (Hany et al. 2020).

Interactional injustice contains two subsections, titled "informational injustice" and "interpersonal injustice", which should be treated independently. Informational injustice focuses on the amount, illegitimacy, and vagueness of information regarding outcome distributions and the procedures used to determine outcomes. It explores how nurse supervisors keep nurses' ignorant about procedures that are used to allocate results as outcomes of the evaluation process, salary increase, or incentives (Mohamed et al. 2018; Haghighinezhad et al. 2019). Lastly, interpersonal injustice reflects the inequality of treatment that is given during the execution of a procedure. It describes how nursing staff and their supervisors interact, as well as how they should be treated in daily tasks and decision-making (Mohamed et al. 2018).

Healthcare organizations were struggling to create a workplace environment of organizational justice that promoted nursing staff satisfaction and

retention while avoiding feelings of work alienation and providing sustainable health services (Amarat et al. 2019). In nursing, workplace alienation is a cognitive and social condition in which nurses feel detached and estranged from their own workplaces. It is a dehumanizing agent, causing the nurse to be an object reacting to work rather than an active participant capable of completing work tasks (Dajani and Mohamed 2017). Workplace alienation emerges as feelings of dissatisfaction with the job and a lack of interest. It denotes an isolation from oneself as a result of powerlessness, meaninglessness, and self-estrangement (Islam et al. 2019).

Powerlessness is the feeling that individuals have no control over decision-making processes that leads to circumstances in which nursing staff have limited freedom for controlling their work activities (Hany et al. 2020). Meaninglessness indicates a condition where nursing staff think that their contributions to the organization are restricted and are unable to realize their importance, which occurs due to an inability to understand the organizational goal. Self-estrangement occurs when nursing staff feel an inability to respond to their own wishes and needs due to a failure to attach any internal motivation, in which external motivation (such as money) becomes more dominant**.** The nursing staff missed the feeling of pleasure that comes with success (Amarat et al. 2019; Durrah 2020). It lacks self-expression and a sense of self-identity or personal fulfilment (Dajani and Mohamed 2017).

Significance of the study:

There is no doubt that the COVID-19 pandemic will have a broad and long-term impact on the healthcare sector, as well as affect the physical and mental health of nursing staff. The inappropriate and unacceptable workplace environment threatens both the organizational stability and the nursing staff's productivity, especially during this crisis. Thus, the most important risk to the nursing staff is maintaining their psychological balance between work alienation, job stress, and unfairness. If nursing staff find fairness in their organizational labor, their conduct will be friendly and polite. Hence, as any hospital struggles to use its human resources more effectively in order to gain competitive privileges, the nurse-hospital relationship has always been a research issue of interest. Nevertheless, there is a limited amount of research in the area of organizational injustice among healthcare professionals. Therefore, this study aimed to identify the relationship between multidimensional concepts of organizational injustice and workplace alienation.

II. Aim

The main aim of this research was to identify the influence of perceived organizational injustice on workplace alienation among nursing staff during COVID-19, which covered the threefold objectives:

- To assess the perception levels of organizational injustice and workplace alienation among nursing staff.
- To determine the influence of organizational injustice dimensions (distributive, procedural and interactional), on workplace alienation factors (powerlessness, meaninglessness, self-estrangement).
- To investigate the relationship between the study's variables (organizational injustice and workplace alienation) and nursing staff's demographic characteristics.

III. Research Hypotheses:

The current study is expected to reveal relationships between three organizational injustice dimensions and three work alienation factors during the

COVID-19 pandemic, which were summarized and represented in figure (1):

H_1: Nursing staff's perceptions of distributive injustice will be positively associated with their feelings of workplace alienation related to powerlessness, meaninglessness, and self-estrangement.

H_2: Nursing staff's perceptions of procedural injustice will be positively associated with their feelings of workplace alienation related to powerlessness, meaninglessness, and self-estrangement.

H_3: Nursing staff's perceptions of interactional injustice (informational and interpersonal) will be positively associated with their feelings of workplace alienation related to powerlessness, meaninglessness, and self-estrangement.

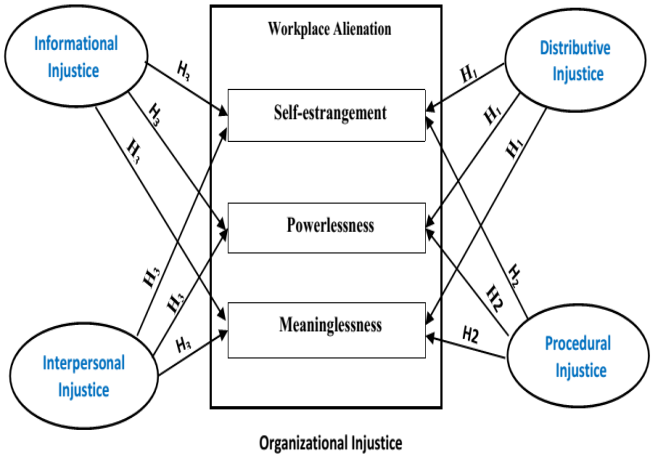

Figure (1): Proposed Hypotheses of three organizational injustice dimensions and three workplace alienation factors

IV. Methods

Research Design:

A descriptive, correlative research design was utilized to achieve the study's aim. This design is better suited for explaining nursing staff's perceptions of both organizational injustice (independent variable) and workplace alienation (dependent variable) during the COVID-19 pandemic, as well as checking the influence of the independent variable on the dependent variable.

Research Settings:

This study was conducted in intensive care units (ICUs) (general, pediatric, neonatal, neurology, and coronary), as well as inpatient wards of males and females (operations, medical, surgical, and pediatric) at Tanta Main University Hospital, which is affiliated with the Minister of Higher Education and Scientific Research, as well as Al-Minshawi General Hospital, which is affiliated with the Ministry of Health and Population in Al-Gharbia Governorate.

Research Subjects:

This study used a convenience sampling, which employed 508 nursing staff who had the desire to contribute to this study. During the ongoing COVID-19 pandemic, both aforementioned settings had isolation departments in which all-nursing staff rotated for two weeks consecutively and returned to their residences daily. The participants' response rate was 38.33% out of 1325 nursing staff.

Research instruments:

This study used two tools that comprised the following tools:

Tool (1): Perceived Organizational Injustice Dimensions (POID)

This tool consists of two parts. The first part was developed by the researchers who encompassed socio-demographic data of nursing staff such as their age, gender, hospital/department names, marital status, level of education, years of experience, position, and number of working hours/week. The second part originated from the organizational justice tool, which was developed by Omar (2018).

This second part of questionnaire was adapted by the researchers to be introduced with an inverse

meaning to be suitable for the study's aim. It consisted of three dimensions involving; procedural injustice (7 items), distributive injustice (4 items), and interactional injustice (9 items). The dimension of interactional injustice included four items of interpersonal injustice and five items of informational injustice.

Scoring system:

All items used a 5-point Likert Scale with anchors of 1 = not at all, 2 = to a small extent, 3 = to a moderate extent, 4 = to a considerable extent, and 5 = to a large extent. Each nursing staff member chose one answer only after carefully reading and comprehending it; finally, the score for each dimension was added up and converted to a percentage. The total score range was 20–100, and the cutoff point was set at 60% = 60. The total perception of organizational injustice was determined as the following:

- High perception if the percent is equal or more than 75% of the total score, which is 75 points.
- Moderate perception ranges from 60% to less than 75%, or 60 to 74 points.
- Low perception if the percentage is less than 60% or 60 points.

Tool (2): Workplace Alienation Factors (WAF)

The original form of this tool was developed by Mottaz (1981), which was adapted by the researchers based on Mirkihi (2015); Punia and Berwal (2017); Alomeroglu et al. (2018); Durrah (2020); and Hashish (2020). The adapted version incorporated 29 items to assess the factors of workplace alienation as perceived by nursing staff. It categorized into three factors, self-estrangement (7 items), powerlessness (11 items) and meaninglessness (11 items).

Scoring system:

The response categories ranged along a five-point Likert Scale, which ranged from 5 = strongly agree to 1 = strongly disagree. The overall score of each factor of workplace alienation was summed up and converted into percent, with a range of scores from 29–145 and a cutoff point of 109 points. Staff nurses were alienated if the percentage was equal to or greater than 75% (109 points), and they were not alienated if it was less than 75% (109 points).

Validity and reliability:

The questionnaire was submitted to five experts from the specialty of nursing administration of various nursing faculties throughout different Governorates to test its content and face validity. Experts were asked to make the necessary modifications for unclear or unrelated items. The value of Cronbach's coefficient alpha was utilized to assess the questionnaire's internal consistency, which showed 0.89 for organizational injustice and 0.76 for workplace alienation, displaying worthy internal consistency of reliability.

Pilot study:

The pilot study was carried out on 50 nursing staff, representing 10% of the total sample and excluded from the study's subjects. It was used to ensure the applicability, consistency, clarity, understandable language, and suitability of the instruments, as well as control of any potential obstacles encountered during data collection. The necessary modifications were made. The estimated time to fill out the questionnaire was taken at around 15–17 minutes for each participant.

Data Collection technique:

Data were collected in order to be subjected to hypothesis testing aimed at the study's objectives. This phase started from the beginning of December 2020 until the end of February 2021; approximately three

months. Data was collected via online Google forms based on the evolving crisis of the COVID-19 outbreak, which was available in both Arabic and English to ensure that all participants comprehended the questionnaire.

This method of data collection allowed the researchers to gather data from participants at the minimum cost in the least time. The questionnaire included fixed-alternatives, and scale which were suited to the research`s nature and scope. All nursing staff phone numbers were collected and developed into groups on WhatsApp that were used to send the link; in which three reminders were sent for the groups to fill out the questionnaire.

***Ethical Considerations*:**

Prior to data collection, permission to conduct the study was granted from the Chief Executive Officers of Tanta Main University Hospital and Al-Minshawi General Hospital, which had been provided to supervisors of departments before the research's implementation. The participants were informed about the study's aim and gave their consent for participation, which was incorporated into the first part of the questionnaire. Additionally, the participation was anonymous, voluntary, and all data would be managed confidentially. The participants were assured that non-participation would not result in any disciplinary actions and did not affect their evaluation.

***Statistical analysis*:**

The IBM SPSS software package (Armonk, NY: IBM Corp) version 22.0 was used to analyze the data. The questionnaire was analyzed for internal consistency using Cronbach's alpha coefficient. The descriptive data used numbers, percent, mean, and standard deviation. To detect statistically significant differences between two or more groups of independent variables on a continuous or ordinal dependent variable, the inferential data was subjected to the one-way analysis of variance (ANOVA) test (normal distribution) and the Kruskal-Wallis H test (non-normal distribution).

The Pearson coefficient (r) test was used to determine the correlation between two normally distributed quantitative variables, and the regression test (R^2) was used to check the influence of the independent variable (organizational injustice) on the dependent variable (workplace alienation). The level of statistical significance was stated at $p < 0.05$.

V. Results:

Table 1 shows the frequency and distribution of nursing staff demographic data. According to the data, over half (54.9%) of the nursing staff were in the age group 30-<40 with a mean score of 34.14 ± 6.37, 87.6% of them were females, 54.13% of them worked at Al-Minshawi General Hospital, and 54.1% them worked in inpatient wards. The majority (89.8%) of participants were married, 68.9% of them had Bachelor of Sciences in Nursing (BSN), 41.1% of them had <10 years of experience with a mean score of 12.03 ± 5.87. The highest percent (78.1%) of participants were staff nurses, and 84.6% of them worked 36-<48 hours/week with a mean score of 37.81 ± 4.78.

Table 2 presents the mean scores of organizational injustice dimensions among nursing staff. It was noticed that distributive injustice had the highest mean score (79.64 ± 14.71), followed by procedural (77.18 ± 15.63), then informational (59.22 ± 19.45), and finally interpersonal (49.22 ± 21.05) among nursing staff. Moreover, the overall mean score of organizational injustice of nursing staff was 67.76 ± 12.10.

Figure 2 declares the levels of organizational injustice dimensions among nursing staff. The majority

(84.6%) of nursing staff perceived a low level of interpersonal injustice. Furthermore, the highest percent (67.7%, 62.4%, and 59.1%) of nursing staff perceived a high level of organizational injustice pertaining to distributive, procedural, and informational dimensions, respectively. While the majority (71.4%) of participants perceived a high level of overall organizational injustice score.

Table 3 illustrates the mean scores of work alienation factors among nursing staff. The highest mean score (81.14 ± 12.39) of work alienation was assigned to the powerlessness factor, followed by the meaninglessness factor (79.89 ± 13.11); whereas, the lowest mean score (59.21 ± 14.94) was given the self-estrangement factor. The overall mean score for work alienation was 71.75 11.79.

Figure 3 displays the levels of work alienation factors among nursing staff. It was apparent that 95.7%, 67.5%, and 66% of the nursing staff were alienated due to the work alienation factors of powerlessness, meaninglessness, and self-estrangement respectively. Furthermore, the majority (76.4%) of the nursing staff were alienated from their workplace.

Table 4 represents the relationships between overall scores of organizational injustice dimensions and nursing staff demographic data. There were positive, significant relationship between overall scores of organizational injustice dimensions and the nursing staff's name of department (F=50.091, p<0.001), years of experience (H=19.018, p=0.048), position (H=15.691, p=0.023), and number of working hours/week (H=12.574, p=0.042).

Table 5 presents the relationships between overall factors of work alienation and nursing staff's demographic data. This table clarified positively significant relations between an overall score of work alienation factors and the nursing staff level of education (H=17.340, p=0.008), and position (H=12.338, p=0.013) respectively.

Table 6 represents the correlation between work alienation factors and organizational injustice dimensions. It was clear that distributive injustice (r=0.095, p=0.032), procedural injustice (r=0.094, p=0.034), and interpersonal injustice (r=0.094, p=0.034) were correlated significantly with the powerlessness factor of workplace alienation. Procedural injustice (r=0.129, p=0.012), informational injustice (r = 0.140, p 0.002), interpersonal injustice (r=0.071, p=0.001), and overall organizational injustice (r = 0.142, p=0.001) were significantly correlated with meaninglessness factor.

Furthermore, in this table, distributive injustice (r=0.165, p<0.000), procedural injustice (r=0.157, p<0.001), informational injustice (r=0.095, p=0.033) and overall organizational injustice (r=0.157, p<0.001) were positively significant and correlated with the self-estrangement factor. Additionally, the overall workplace alienation factors had correlated with distributive injustice (r=0.122, p=0.006), interpersonal injustice (r=0.197, p<0.001), and overall organizational injustice (r=0.144, p=0.009).

Table 7 denotes the multivariate regression analysis between dimensions of organizational injustice and overall workplace alienation factors. The goal of the multivariate regression analysis was to observe how the dimensions of organizational injustice (procedural, distributive, interpersonal & informational) affected overall workplace alienation. The dimensions of organizational injustice were found to significantly contribute to the prediction of the explained variance of workplace alienation, with the regression coefficient value (R^2 = 0.494) and the F test (F=183.926) at significant levels of p<0.001 & p<0.05.

Table (1): Frequency and distribution of the studied nursing staff's demographic data

Demographic Data	Nursing Staff (n = 508)	
	No.	%
Age (years)		
<30	119	23.4
30-<40	279	54.9
40-<50	103	20.3
≥50	7	1.4
Mean ± SD.	34.14 ± 6.37	
Sex		
Male	63	12.4
Female	445	87.6
Hospitals' name		
Main Tanta University Hospital	233	45.87
Al-Minshawi General Hospital	275	54.13
Department's name		
Inpatients' Wards	275	54.1
Intensive Care Units	233	45.9
Marital status		
Married	456	89.8
Not Married	52	10.2
Level of education		
Secondary Diploma of Nursing	45	8.9
Technical Institute of Nursing	84	16.5
Bachelor Sciences of Nursing	350	68.9
Master Sciences of Nursing	23	4.5
Doctor Philosophy of Nursing	6	1.2
Years of experience		
<10	209	41.1
10-<15	124	24.4
15-<20	114	22.4
≥20	61	12.0
Mean ± SD.	12.03 ± 5.87	
Position		
Staff nurse	397	78.1
Head nurse	78	15.4
Nurse Supervisor	33	6.5
Number of working hours/week		
<36	23	4.6
36-<48	430	84.6
≥48	55	10.8
Mean ± SD.	37.81 ± 4.78	

Table (2): Mean scores of organizational injustice dimensions among nursing staff

Organizational Injustice Dimensions			Value
Procedural injustice		Min. – Max.	8.57 - 100.0
		Mean ± SD.	77.18 ± 15.63
Distributive injustice		Min. – Max.	11.00 - 100.0
		Mean ± SD.	79.64 ± 14.71
Interactional	**Informational injustice**	Min. – Max.	7.1 – 100.0
		Mean ± SD.	59.22 ± 19.45
	Interpersonal injustice	Min. – Max.	5.6 – 85.0
		Mean ± SD.	49.22 ± 21.05
Overall organizational injustice		Min. – Max.	14.88 - 94.5
		Mean ± SD.	67.76 ± 12.10

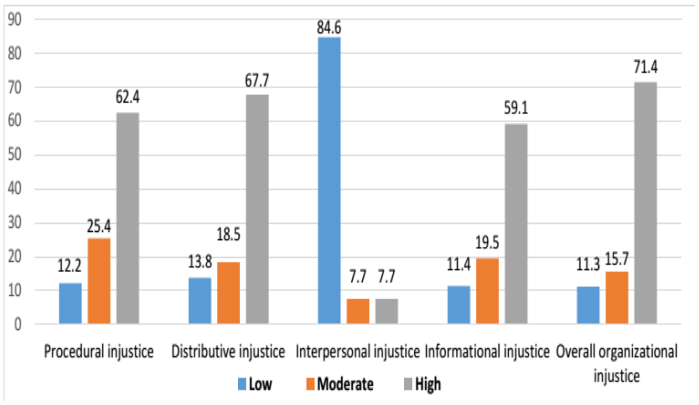

Figure (2): Levels of organizational injustice dimensions among nursing staff

Table (3): Mean scores of workplace alienation factors among nursing staff

Work Alienation Factors		Value
Powerlessness	Min. – Max.	11.36 – 100.0
	Mean ± SD.	81.14 ± 12.39
Meaninglessness	Min. – Max.	13.64 – 100.0
	Mean ± SD.	79.89 ± 13.11
Self-estrangement	Min. – Max.	10.71 – 88.43
	Mean ± SD.	59.21 ± 14.94
Overall Work Alienation	Min. – Max.	18.97 – 94.76
	Mean ± SD.	71.75 ± 11.79

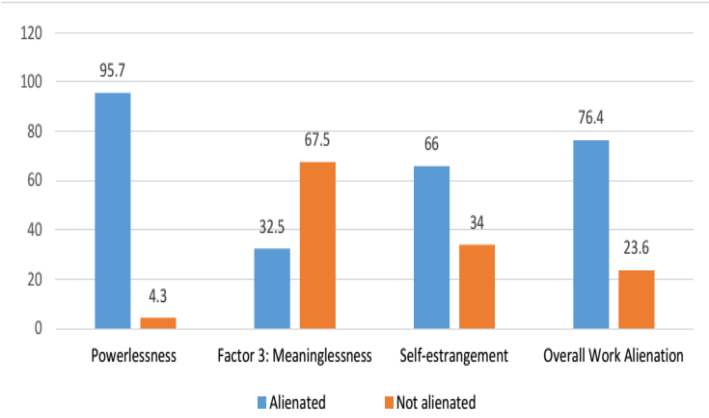

Figure (3): Levels of work alienation factors among the studied nurses' groups

Table (4): Relationships between overall scores of organizational injustice dimensions and nursing staff demographic data

Demographic Data	Test of sig.	Value	p
Age (years)	H	2.048	0.562
Sex	F	13894.50	0.910
Marital status	H	2.666	0.264
Hospital name	F	30456.50	0.999
Department's name	H	50.091	<0.001*
Level of education	H	6.119	0.410
Years of experience	H	19.018	0.048*
Position	H	15.691	0.023*
Number of working hours/week	H	12.574	0.042*

F: **F for ANOVA test,** H: H for **Kruskal Wallis test,** SD: **Standard deviation,** *: Statistically significant at p ≤ 0.05

Table (5): Relationships between overall work alienation factors and nursing staff demographic data

Demographic Data	Test of sig.	Value	p
Age (years)	H	0.778	0.855
Sex	F	13852.0	0.879
Marital status	H	1.999	0.368
Hospital name	F	30221.50	0.883
Department's name	F	32029.0	0.996
Level of education	H	17.340	0.008*
Years of experience	H	1.665	0.645
Position	H	12.338	0.013*
Number of working hours/week	H	1.220	0.543

F: F for ANOVA test**, H**: H for Kruskal Wallis test**, SD**: Standard deviation**,** ***: Statistically significant at p≤ 0.05

Table (6): Correlation between organizational injustice dimensions and work alienation factors

Organizational Injustice Dimensions		T	Work Alienation Factors			
			P	M	SE	Overall work Alienation
Distributive injustice		**r**	0.095	0.069	0.165	0.122
		p	0.032*	0.120	0.000*	0.006*
Procedural injustice		**r**	0.094	0.129	0.157	0.007
		p	0.034*	0.012*	<0.001*	0.880
Interactional injustice	**Informational**	r	0.010	0.140	0.095	0.049*
		p	0.815	0.002*	0.033*	0.184
	Interpersonal	**r**	0.094	0.071	0.069	0.197
		p	0.034*	0.001*	0.123	<0.001*
Overall organizational injustice		**r**	0.009	0.142	0.157	0.144
		p	0.840	0.001*	<0.001*	0.009*

T: Test**, r:** Pearson coefficient**, ***: Statistically significant at p ≤ 0.05
P: Powerlessness, **M**: Meaninglessness, **SE**: Self-estrangement

Table (7): Multivariate regression analysis between dimensions of organizational injustice and overall workplace alienation factors

Dimensions of Organizational injustice		B	Beta	t	p	95% C.I	
						L.L	U.L
Procedural injustice		0.177	0.223	5.954*	0.006*	0.118	0.235
Distributive injustice		0.367	0.395	8.941*	<0.001*	0.294	0.439
Interactional injustice	**Interpersonal**	0.169	0.185	5.235*	0.009*	0.106	0.232
	Informational	0.142	0.170	4.243*	0.010*	0.076	0.208
R^2=0.494, F=183.926, p<0.001 & p<0.05							

R^2: Regression coefficient; **F:** F-test (ANOVA); **B:** Unstandardized Coefficients; **Beta:** Standardized Coefficients;
CI: Confidence interval; **LL:** Lower limit; UL: Upper Limit; ***:** Statistically significant at p<0.001 & p<0.01.

VI. Discussion:

The COVID-19 pandemic has caused a tremendous strain on the healthcare system and its workers are struggling on the front lines to treat and contain this virulent disease (Rose et al. 2021). This crisis has not only limited the direct effects on healthcare personnel and their families, but also led to indirect economic fallout across the global economy.

Indeed, if this crisis is accompanied by organizational injustice and fails to meet the needs of the nursing staff's autonomy, responsibility, and achievement, it will negatively influence their behaviors, attitudes, and performance. The omission of organizational justice decreases nursing staff loyalty and may create a feeling of alienation from their workplace, which reduces their motivation and work involvement. Thus, this research focused on identifying the relationship between perceived organizational injustice and workplace alienation among nursing staff during the COVID-19 pandemic.

The study's analysis indicated that the nursing staff perceived distributive and procedural injustice as the highest mean scores of organizational injustice dimensions, followed by interactional (informational

and interpersonal) dimensions. This result can be justified by nursing staff being concerned not just with the receiving outcomes or resources of their organizations, but also with the methods or procedures used to implement or allocate these outcomes. This implies that the nursing staff did not obtain acceptable outcomes that reflected their skills, efforts, experience, or contributions.

In agreement, Abd-Elrhaman et al. (2020) and Hashish (2020) findings displayed that the highest mean score was interactional justice, followed by procedural and distributive domains among staff nurses. Additionally, Mengstie (2020) revealed that healthcare workers had low perceptions regarding distributive, procedural, interpersonal, and informational organizational justice in public hospitals, while healthcare workers in private hospitals had low levels of distributive and procedural justice, as well as high levels of interpersonal and informational justice. In contrast, Ghasi et al. (2020) highlighted that nurses perceived interactional injustice as the highest mean score, followed by procedural and distributive injustice, respectively.

The current study showed that the majority of nursing staff perceived a high level of overall organizational injustice, with the highest levels of distributive, procedural, and informational injustice, respectively, as well as the lowest level of interpersonal injustice. This means that nursing staff are worried about what (distributive injustice), how (procedural injustice) and why (informational injustice) privileges being dispersed in their workplace. During the COVID-19 crisis, they felt unfairness towards their salary, recognition, access to hospital resources, work overload, training opportunities, and work schedule, as well as how these privileges offered limited information sharing.

In agreement with Afzali et al. (2017) findings, who conducted a qualitative study with unstructured interviews, found that Iranian nurses faced substantial disruptive injustice in the form of delayed payments, unequal workload, unfair interactions, discrimination from physicians, and a lack of decision-making and fair evaluations. The Egyptian study of Abd-Elrhaman et al. (2020) declared that more than two-thirds of staff nurses perceived a moderate level of organizational justice. Moreover, the Omani study of Durrah (2020) revealed a low level of perceived injustice among healthcare personnel in four sectors of private hospitals.

In this context, the Nigerian study of Ghasi et al. (2020) concluded that healthcare workers, including doctors, nurses, and allied health personnel, had a moderate level of perception concerning distributive and procedural justice, whereas interactional justice was at a high level. Furthermore, Mohamed et al. (2018) found a moderate level of organizational justice with a higher mean score for procedural justice and the lowest mean score for disruptive justice. The study by Jun et al. (2015) mentioned that Chinese nurses perceived a high level of interpersonal justice, as well as moderate levels of procedural justice, and informational justice. According to an Egyptian study of Hashish (2020), nurses working in a private hospital perceived a moderate level of organizational justice, while those working in a government hospital perceived a low level.

The current findings demonstrate workplace alienation among nursing staff with a higher mean score of powerlessness and a lower mean score of self-estrangement. These results may be related to most work decisions being done without their participation, their inability to make changes or take judgments on their work, as well as their sense of insignificant

contributions and being deprived of authorization in their job.

In congruent with these results, Abd-Elrhaman et al. (2020) emphasized that the nursing staff experienced work alienation, with the powerlessness factor having the highest mean score and normlessness having the lowest mean score. According to the findings of Özer et al. (2019), physicians and nurses experienced workplace alienation at a medium level, with high levels of powerlessness and self-estrangement factors.

In the same scene, Jun et al. (2015) showed moderate levels of powerlessness, meaninglessness, and self-estrangement of work alienation among nurses. The study by Amarat et al. (2019) showed a negative effect of workplace loneliness and work alienation on job performance among nurses working in Turkey hospitals. In contrast, the studies of Valikhani and Zamani (2019) and Durrah (2020) concluded that the level of work alienation was found to be at moderate. Özçelik et al. (2020) found a moderate level of work alienation among nurses confronted with organizational changes, which justified by feelings of anger, resentment, and meaninglessness because of not being informed about the changes, and not considered their opinions before implementing the innovations.

The existing findings suggest positive relations between overall organizational injustice dimensions and the nursing staff's department, years of experience, position, and number of working hours/week. It was observed that the perception of organizational injustice was higher among nursing staff who worked in ICUs, had less than 10 years of experience, were employed as staff nurses, and worked more than 48 hours per week. It seems that nursing staff who worked in ICUs were subjected to a variety of factors that contributed to their sense of injustice, such as heavy workloads, dealing with critically ill and highly infected COVID-19 patients, a shortage of staff, and insufficient resources, particularly if they were staff nurses. Furthermore, the nursing staff with less experience and longer shifts experienced greater organizational injustice due to unequal workload distribution, unfair evaluation, as well as a lack of support and financial incentives, all of which may affect the quality of patients' care.

In this aspect, Mohamed et al. (2018) findings reflected significant relationships between overall organizational justice and nurses' gender, marital status, educational level, and years of experience. On the contrary, Ghasi et al. (2020) suggested that nurses' age and gender forecasted distributive and procedural justice. Moreover, Zadeh et al. (2016) demonstrated negative and significant relationships between organizational justice and education level. Whereas, Mengstie (2020) and Abd-Elrhaman et al. (2020) displayed no significant relationships between overall organizational injustice and nursing staff's demographic characteristics.

Likewise, positive relationships were identified between the overall work alienation factors and the nursing staff's level of education, and position. This result indicated that hospital staff nurses who were the lowest qualified members and worked in isolation wards were more likely to be alienated in their workplaces due to inadequate knowledge and skills.

In disagreement with these findings, Abd-Elrhaman et al. (2020) detected a negative correlation between work alienation and nurses' years of experience. Whereas, Kanbur (2017) identified significant differences in work alienation levels based on participants' gender, marital status, and overall seniority, but no differences based on position, age, education degree, and seniority in the current workplace.

As noted in the present study, the nursing staff's perceptions of distributive injustice were positively associated with the overall workplace alienation, as well as with the factors of self-estrangement and powerlessness. Moreover, there were positive correlations between the nursing staff's perception of procedural injustice and the workplace alienation factors of powerlessness, meaninglessness, and self-estrangement.

In other words, the level of a self-estrangement factor of workplace alienation was observed to be increased among nursing staff who had suffered from a high level of distributive, procedural, and informational injustice, as well as the aggregated level of powerlessness among nursing staff associated with distributive, procedural and interpersonal discrimination, which supported the first and second hypotheses.

Concerning the interactional dimension, the current results reported positive correlations between informational injustice and work alienation factors of meaninglessness and self-estrangement. Furthermore, the findings indicated positive associations between interpersonal injustice and overall workplace alienation, as well as the factors of powerlessness, and meaninglessness. This indicates that as the nursing staff who experienced informational injustice felt an increasing sense of meaninglessness and self-estrangement, as well the nursing staff who experienced interpersonal discrimination felt powerlessness and meaninglessness in their hospitals. These findings supported the third research's hypothesis.

Overall, organizational injustice was influenced by work alienation and its associated factors of self-powerlessness, meaninglessness, and estrangement. According to the current findings, it is possible to conclude that approximately all dimensions of organizational injustice were positively correlated to all factors of workplace alienation.

These findings were consistent with the results of Jun et al. (2015) and Abd-Elrhaman et al. (2020), who showed negative correlations between organizational justice and work alienation. Moreover, the study of Durrah (2020) proved a positive, significant correlation between nurses' perception of organizational injustice and work alienation. In this context, the results of Dajani and Mohamed (2017) demonstrated a partially mediated effect of work alienation factors in conducting the significant relationship between all dimensions of organizational injustice and counterproductive behaviors. Hashish (2020) demonstrated a weak negative association between perceived overall score of organizational justice and workplace deviance in relation to all factors of the two variables.

In this respect, Islam et al. (2019) stated that alienation was significantly correlated with distributive and procedural justice, but was insignificant with interpersonal and informational injustice. The findings of Zadeh et al. (2016) clarified that disseminating a sense of unfairness in the workplace can lead to managers' displacement, turnover, job dissatisfaction, lack of trust in top management, organizational conflicts, tensions, and work stress. Zadeh et al. (2016) concluded that a negative attitude towards justice and equality in the workplace could influence organizational commitment and loyalty, as well as have a major impact on professional ethics, resulting in alienation.

According to the Beta coefficients, the dimensions of organizational injustice were discovered to have a substantial influence on the predicted variance of workplace alienation among nursing staff.

The perceived organizational injustice dimensions of procedural, distributive, interpersonal, and informational alienation were identified as variables that predict nursing staff workplace alienation, supporting the research hypotheses. In this perspective, Dajani and Mohamed (2017) discovered that procedural injustice had the strongest influence on workers' counterproductive behavior, followed by informational injustice, whereas distributive and interpersonal injustice had the weakest influence. Furthermore, Kartal (2018) showed that the level of work alienation had a negative and significant impact on individual performance.

Limitations of this study:

This study provides comprehensive information about organizational injustice dimensions and workplace alienation factors among nursing staff in Egyptian hospitals, but it has some limitations in terms of generalizability because the data were collected via online Google forms, which may have limited some participants due to internet problems. Additionally, since both hospitals that are involved in this research are governmental settings, it is preferable to be conducted in different sectors of hospitals related to the Ministry of Health or private.

VII. Recommendations:

The following recommendations are based on the research findings:

- Hospital administrators and nurse managers have to attend continuous training programs related to new strategies and approaches to control organizational injustice and workplace alienation.
- Hospital administrators need to state a clear, transparent grievance procedure to be followed by nursing staff for any mistreatment or complaints from their supervisors.
- Nursing policymakers need to establish strict rules and policies guiding nurse managers in setting standards for the allocation of resources.
- Nurse managers in hospitals need to assess the level of organizational injustice and workplace alienation periodically and set up the appropriate innovative counselling interventions for dealing with these situations to ensure high-quality healthcare for patients.
- Nurse managers need to create a climate of cooperation by giving nursing staff the opportunity to have voices heard in the decision-making process, sharing information, distributing fair workload, disseminating a culture of respect, avoiding favoritism, evaluating fairly, and treating everyone equally.
- Nursing researchers need to conduct a longitudinal study or qualitative study to assess the consequences of organizational injustice and workplace alienation, as well as study the coping strategies for overcoming these variables among different categories of nursing staff.
- Nurse scientists need to carry out future studies to study the impact of organizational injustice on workplace climate, deviance behaviors, presenteeism, autonomy, commitment, and professional ethics.
- Nursing academicians need to include the importance, dimensions, causes, and consequences of organizational injustice in the curricula of undergraduate and postgraduate students.

VIII. Conclusion:

The current research concluded that the majority of nursing staff perceived a high level of distributive, procedural, and informational injustice. Most nursing staff were alienated from their workplace due to factors

of powerlessness, meaninglessness, and self-estrangement. There were positively significant relations between overall organizational injustice and the nursing staff's name of department, years of experience, position, and number of working hours/week, as well as positive relations between work alienation and the nursing staff's level of education and position. The dimensions of organizational injustice were found to significantly predict the explained variance of workplace alienation.

***Conflict of interest*:**

This research had not conflicts of interest to be declared.

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