## **International Journal of Social Science And Human Research**

ISSN (print): 2644-0679, ISSN (online): 2644-0695

Volume 06 Issue 09 September 2023

DOI: 10.47191/ijsshr/v6-i9-05, Impact factor- 6.686

Page No: 5385-5398

The Study of Mass Panic Resulting from the Social Crisis of Covid-19 and its Effect on the Job Performance of the Employees of the Ministry of Health in Tehran (Statistical Study of the Employees of the Ministry of Health, Treatment and Medical Education of the Country)



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ABSTRACT: The outbreak of the Covid-19 pandemic caused problems at various levels. One of its consequences is public health problems at the community level, as well as being affected by people's job performance due to the quarantine conditions and the resulting stress. This study intends to investigate the effect of mass panic caused by covid-19 on the job performance of Ministry of Health employees. The present research is a descriptive-analytical study that was conducted in 2019 in Tehran. In this study, 250 employees working in the Ministry of Health participated. Data collection tools were two demographic questionnaires and Patterson's job performance. The samples completed the questionnaires electronically on the Google Form platform. SPSS version 22 software was used for data analysis. The significance level of the data was 0.05. In total, 250 questionnaires were completed. The average age of the samples was 44.11±23.74 and their average work experience was 16.07±8.66. The findings of this study showed that collective panic caused by covid-19 had a significant effect on the indicators of social functioning. Also, based on the findings, fear caused by Corona had a negative effect on people's job performance. The variables of diploma and post-diploma education had an inverse effect on job performance in these people. It seems that due to the limited number of studies on the effect of panic caused by Corona on the social function and job performance of people in occupational groups other than the Corona treatment staff, there is a need for more investigations in this Field.

**KEYWORDS**: fear of corona, job performance, social crisis.

#### INTRODUCTION

Shortly before the beginning of 2020, the news of the spread of the Covid-19 virus in China shocked the world. This virus quickly turned into an epidemic and the whole world was under the influence of this virus, the crisis and the problems caused by it. The closure of borders and travel bans, chaos and disorder in the supply chain of goods and bottlenecks in exports, the closure of many manufacturing and service companies and quarantine, the fear caused by the possibility of contracting this virus and the damage caused by it, changed all aspects of people's lives. And this epidemic turned into an international social crisis. The spread of the corona virus pandemic, as a social and environmental crisis, is an issue that has caused a major transformation in the international events, behaviors and daily activities of all people on the planet. (Tahmasabi 2019). The wave of panic caused by the rapid global spread of the Corona virus created a collective and global stressful social and psychological phenomenon that contains similar intersubjective meanings, and regardless of the cultures and national boundaries of this disease, it has quickly led to the concern of the world community. The high prevalence of death and dying caused by this global epidemic and the daily statistics of death and dying from various news sources, the fear of death and dealing with dead bodies due to its special conditions, is the most important factor of social fear in this situation (Tahmasabi 2019). On the other hand, this collective panic caused by the rapid spread of Covid-19, high mortality, failure of the government to contain the disease, false information, lack of essential items and other factors about this pandemic, has many effects on the public health and especially the mental health of all populations. (Farmer 2020) which needs extensive study. Panic is a relatively unstructured, spontaneous, emotional and unpredictable behavior. When people engage in collective behavior, they respond to a specific stimulus that may be a specific person or event. If the collective problem is solved, its members will disperse. Collective behavior is different from the normal forms of daily individual

behavior, because the norms and roles that determine our daily behavior do not have the same effect on collective behavior. Collective behavior is more emotional than normal daily activities. (Koen 1386).

The spread of the pandemic of the Covid-19 virus is not only a social and environmental crisis, but its effects and consequences have been shown in various medical, social, political, economic, religious and civilizational levels and fields. In addition to threatening the physical health of many people in the world, this disease has also affected the reactions, attitudes and behavior of people all over the world and their normal and everyday life.

The main purpose of this research is to study the collective panic caused by the social crisis of Covid-19 and its effect on the job performance of the employees of the Ministry of Health in Tehran.

To achieve the main goal of the research, we need research in the following sub-goals.1 Determining and explaining the effect of mass panic on the social functioning of the employees of the Ministry of Health in the conditions of the social crisis of Covid-19

- 2 Determining and explaining the effect of demographic variables on the job performance status of Ministry of Health employees in the conditions of the social crisis of Covid-19
- 3 Determining and explaining the effect of mass panic on the job performance of Ministry of Health employees in the conditions of the social crisis of Covid-19

#### RESEARCH LITERATURE

#### Conceptual and operational definition of research variables mass panic

Collective panic, as a form of collective behavior, causes panic in people, and as a result, people make irrational emotional reactions. As a result, emotional contagion occurs and people reinforce each other's behavior (Cohen, 2016).

#### Social crisis

Crisis in general usage refers to people, individual or social life, system, actions, institutions and organizations about them. Crisis means making a decision about continuity or discontinuity of phenomena and affairs. The emergence of crises has various material and non-material or objective and mental causes. Regardless of the causes, crises in terms of structure, function and nature should be such that people or other social identities can consider and experience it as a crisis (Nowzari 2005). From the systematic point of view, a crisis is a strong blow or shock to the structure that holds the whole system and keeps its components and elements together. Therefore, every system crisis threatens the stability of the system (for example, the international system) or the stability of sub-systems and provides the possibility of transformation or transformation in them (Nowzari 2005).

#### **Job Performance**

Job performance is the expected value of organizations from individual behavioral events that people perform in a certain period of time (Newman, Kinney et al. 2004). In order to achieve the goals of an organization and prevent possible damages, the performance results of an organization are reviewed and evaluated. In job performance evaluation, the quantity, quality and losses of a job are shown.

Basics and theoretical framework

#### Social crisis

Crisis is the disruption of the balance of the phenomenon in question, in such a way that the life and existence of that phenomenon is under serious threat and danger. The pre-crisis stages are called challenges. Whenever the challenges are solved, the studied phenomenon will be saved from the crisis. The crisis is studied from different angles, including "laters" and "stages". The crisis has various political, economic, social, military and environmental dimensions. Every crisis has three separate stages: finding the crisis, facing the crisis, and getting out of the crisis (Management Consultants and Strategic Studies Group, 2019).

Social crisis as a stimulus for collective behavior can be a plan. The emergence of a social crisis can provoke people. The crisis is caused by an unplanned phenomenon that damages the processes and the environment (Azizi, Rashidi et al. 2018). One of the major axes in every crisis is the effect of the crisis on the way and type of "self-understanding" and "determining one's position" of the actors, systems or areas affected by the crisis; Because crises always affect identity and individual and social life and living conditions in general (Nowzari 2005). When people get excited and react to each other, they intensify each other's excitement, and in this way, emotions become so intense that people logically neglect their actions. In this case, because people are so excited, they don't think about the consequences of their actions.

In the general classification and at the macro level, there are three main types and definitions of crisis; Systemic crises or crises in the system, governmental decision-making crises and international confrontation crises. What is called "social crises" is placed in the first two categories. Social crisis is related to structural crises and functional crises in various systems or sub-systems existing at the level of society. What is referred to as social crisis expresses the pathologies of crisis in various spheres of individual and social life of human beings and especially their concrete manifestations and their social manifestations or in better words, its

consequences, damages and social threats under multiple economic systems. It is political, social and cultural of different societies. Social crisis is a type of structural/functional dual division (Nowzari 2005).

Corona and the covid 19 virus

The spread of this virus in the last days of 2019 and its continuity in the world in 2020 and the uncertainty of the end point of this pandemic is a very big challenge that has had a great impact on the life, work and communication of the entire people of the world in the current year. This disease has affected everyone in various ways such as physical, mental, emotional, economic, social and psychological.

The Covid-19 virus, like the SARS virus that was prevalent in the last few years, is transmitted by respiratory secretions, contact with surfaces or person-to-person, and air particles. Patients with confirmed or suspected Covid-19 may fear the consequences of infection with the deadly new virus, and those in quarantine may experience boredom, loneliness and anger. In addition, symptoms of infection such as fever, hypoxia, cough, as well as side effects such as insomnia caused by corticosteroids can lead to worsening anxiety and mental distress. Also, the perceived threat of this disease can cause severe psychological incompatibility such as depression, anxiety and stress (Zooqi, Ajil Chi et al. 2019).

#### Mass fear of corona

Previous studies have discussed the wide range of psychosocial consequences that epidemics can impose on the general population. The collective fear of Covid-19, the so-called "coronaphobia" (Asmundson and Taylor 2020), is most likely due to the unknown and unpredictable course of the disease, the perceived risk of infection and other factors, and can lead to negative responses. Psychosis including maladaptive behaviors, emotional distress, and avoidant reactions among normal people (Taha, Matheson et al. 2014). In the area of disease outbreak, news about death, acceleration in the number of new cases and extensive attention of the media can increase people's fear, despair, helplessness and anxiety. This leads to inappropriate protective and help-seeking behaviors in the community by distressed individuals, which may lead to conflict between medical staff and patients, which can be detrimental to epidemic control programs and disrupt social stability (Asmundson and Taylor 2020). Also, people's excessive concern about the lack of emergency and essential services about quarantine may cause anxiety and this unrealistic panic can lead to false feelings about stocking essential items or daily resources (such as hand sanitizer, medicines, protective masks or even toilet paper). This "group or collective behavior" (Singh and Misra 2020) has devastating effects on a society that really needs those necessities and may even create an underground black market, leading to social disruption and injustice.

#### BACKGROUND RESEARCH

Due to the newness of this disease, the number of studies conducted on the above topic is very limited.

## **External studies**

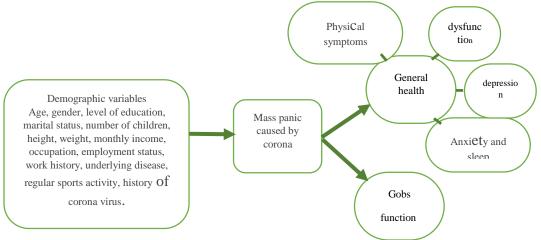
In a study by Li et al. (2021) titled "Effective Factors in Employees' Mental Well-Being and Job Performance During the Global Covid-19 Pandemic: A Social Cognitive Work Theory Perspective," the working conditions of Taiwanese versus Chinese employees were examined. The results showed that Taiwanese have good development paths compared to Chinese employees in terms of prior knowledge, perceived organizational support, self-efficacy, employee employability, mental well-being, and job performance. This study shows that a positive psychological attitude is a suitable way for employees to It facilitates improving one's job performance in various work environments, especially when enduring a difficult situation (Lee, Peng et al. 2021). In the study of Kumar and his colleagues (2021) entitled "Working in quarantine: the relationship between stressors caused by covid-19, job performance, distress and life satisfaction", the effect of stressors caused by covid-19 such as; Increase in workload, lifestyle choices, family distractions and job problems on the level of distress and job performance of 433 professional experts of private and public organizations in the Delhi and NCR region of India in the third and fourth stages of India's quarantine were studied. No quarantine conditions. But the effect of distraction in the family, job discomfort, and especially the distress caused by this situation, had a good effect on job performance (Kumar, Kumar et al. 2021).

In (2020), Gerhold and colleagues conducted a study titled "Covid-19: Perceptions of Risk and Coping Strategies". The results of this research showed that, considering the age of the respondents, elderly people are more worried compared to young people. At the same time, there is no suitable age difference in terms of fear of getting infected. Only 8.5% of respondents aged 60 to 74 are afraid of being infected with Covid-19, while 67.4% of this age group are generally worried about Covid-19. In summary, older people assess the risk of contracting Covid-19 as lower than younger people. Women are more worried about Covid-19 than men. People worry about being contaminated in places with high public traffic such as public transport and shops or restaurants (Gerhold 2020).

Aubrey conducted a poll titled Most Americans Say the United States is "Doing Enough" to prevent the spread of the coronavirus (2020). The results of his research show that 56% of the participants were worried or very worried about the spread of Covid-19 in the United States (Aubrey 2020).

#### Previous studies in Iran.

In the study of Portimore and his colleagues (2021) entitled "The relationship between mental work and job performance among Iranian nurses who care for patients with Covid-19: a cross-sectional study" to investigate the relationship between the increase in



workload caused by the conditions of Covid-19 and performance 139 nurses were employed in special care, infectious diseases and emergency departments of two hospitals in Hamadan and Urmia provinces. The results showed that the mental workload of nurses increased during the Covid-19 pandemic. The increase in the workload of health care workers during the

Covid-19 pandemic affects their job performance, causes medical errors, causes an increase in patient mortality, and is a major concern of all health organizations in the world. The results of this study also showed that variables such as age, gender, type of ward, work shift, experience in providing care to patients with covid-19 and expressing frustration caused a variance of 33% in the job performance of these nurses (Pourteimour, Yaghmaei et al. 2021).

In the study of Nagarestani et al. (2021) entitled "Mental health of the elderly in the covid-19 pandemic: the role of facing the media", the general health of 200 elderly people was studied by covering daily rehabilitation centers and retirement centers in the city of Kerman. The results showed that the higher education and employment of these elderly people was a protective factor for their mental health (Negarestani, Rashedi et al. 2021). In a study by Karimi and his colleagues (2020) entitled "The life experience of nurses caring for patients with Covid-19 in Iran: a phenomenological study", mental state (anxiety, stress and fear), emotional conditions (suffering and harassment and expectation of death) and The field of care (confusion and lack of support and equipment) was studied in 12 nurses caring for patients with covid-19. The results of this study showed that nurses working in wards and care centers dedicated to patients with Covid-19 experience inappropriate mental, emotional and occupational conditions. Despite these obstacles, nurses continue to provide appropriate care to their patients. The experiences of fear and the unpleasant situation of nurses have created a contradiction. Nurses need more support in caring for Covid-19 (Karimi, Fereidouni et al. 2020). In the study by Shoja and his colleagues (2020) entitled "Effects of Covid-19 on the Workload of Iran's Health Care Workers", the effect of Covid-19 on the public health situation on nurses, doctors, emergency medical service personnel, clinical technicians and public health who are in the Ministry of Health and Iran's medical education work, payment. In this study, it was observed that the type of job, work shift, level of education and exposure to Covid-19 had an effect on the workload of these people, and nurses showed a higher workload compared to other groups of health workers. Also, the results of this study showed that NASA TLX and GHQ 12 scores were significantly higher among employees who had contact with Covid-19 patients than those who did not (Shoja, Aghamohammadi et al. 2020). In a study conducted by Tabibzadeh et al. (2020) titled "The state of general mental health, the level of resilience and spiritual intelligence in the staff of the medical staff who faced with the patients of Covid-19 in the Prophet Azam Bandar Abbas Hospital", the number of 95 nurses working for 4 Week - In the Covid-19 ward of this hospital, general health, resilience and spiritual intelligence were studied. The results of this study show There is no significant relationship between inpatient departments with resilience, mental health and spiritual intelligence. The average general mental health of nurses was based on the cut point of 4, which is high. Based on this cut-off score, 87.4% of people have a lack of mental health, which is significantly different from similar results in non-Covid nurses (Tabibzadeh and Behzad 2019).

#### CONCEPTUAL MODEL OF THE STUDY.

### **Research Methods**

This research is descriptive and analytical and was carried out in a cross-sectional way in the Ministry of Health of Tehran. Sampling was done by a simple random method with the participation of a number of employees of the Ministry of Health in Tehran. In this survey, the data of the study was collected by the field method and using the questionnaire tool for the employees of the Ministry of Health. Due to the spread of Corona virus and compliance with health and remote work protocols for most of the employees, the questionnaire was entered on the Google platform and sent to the employees as an email. Data analysis was done using SPSS version 26 software. All employees working in the Ministry of Health, Treatment and Medical Education were considered as the statistical

population of this study. The size of the selected sample was considered to be 340 people based on Cochran's formula. Within two months, 250 items were completely completed and received. The same number was used in the analysis.

$$\mathbf{n} = \frac{\frac{\mathbf{z}^{\mathsf{T}} + \mathbf{p}\mathbf{q}}{\mathbf{q}^{\mathsf{T}}}}{\mathbf{1} + \frac{\mathsf{T}}{N} (\frac{\mathbf{z}^{\mathsf{T}} + \mathbf{p}\mathbf{q}}{\mathbf{q}^{\mathsf{T}}} - \mathsf{T})}$$

To collect data in this study, three demographic questionnaires or general and demographic information, Patterson's Job Performance Questionnaire and self-

made mass phobia questionnaire were used. Demographic information questionnaire, including questions about gender, age, height, weight, marital status and number of children, level of education, employment status, occupation, work history, amount of income, as well as questions about regular physical activity, history of illness and illness during A month had passed. Initially, to measure the validity and ensure its suitability for measuring the desired variable, the questionnaire was approved by several professors of sociology and its problems were fixed. Then, the reliability of the collective fear questionnaire caused by Covid-19 was investigated using Cronbach's alpha method. If it is clear in table number 1; From the number of 250 respondents, all of them, except for one person, entered the order of reliability analysis.

### Table No. 1: Summary of variable process (Case Processing Summary)

The number of percent

Variable Valid 249 6/99

Excluded 1 4/0

Total sum 250 100

Based on Table No. 2, the standardized reliability value is equal to 0.872, which shows that 7 items related to the panic or collective fear index caused by Covid-19 have high reliability and, in other words, high internal consistency to measure this index.

# **Table No. 2: Reliability Statistics**

Cronbach's alpha Cronbach's alpha based on the standardized number of items 0.871 0.872 7.

#### **FINDINGS**

# **Data description**

Before examining the hypotheses, descriptive statistics methods were used to summarize the collected data and descriptively display the characteristics of the statistical sample of the research. This was done considering the scale of the data. In Table No. 3, some characteristics of the cognitive population of the subjects are reported based on centrality and dispersion indices. As the results show, the average age of the samples  $(42.69\pm8.998)$  was about 43 years and their average work experience  $(16.07\pm8.66)$  was about 16 years. It should be mentioned that the average number of children among respondents  $(1.08\pm1.02)$  was about one. On the other hand, the mean and standard deviation of height and weight in these people were  $166.34\pm9.26$  and  $70.43\pm13.55$  respectively. Table No. 3: Demographic characteristics of the participants in the study

Age, number of children, height, weight, work experience

Valid number 247 248 249 250 246

Missing 3 2 1 0 4

Average 42/69 08/1 166/34 70/43 07/16

Middle 42/00 1/00 165/00 68/50 15/00

Standard deviation 8/998 1/021 9/256 13/546 8/658

Variance 183/955 80/955 183/963

At least 25 0 148 46 0

Maximum 68 6 200 120 45

In Tables 4 to 12, some characteristics of the subjects' cognitive population, which are nominal or ordinal variables; It is reported based on frequency and percentage. The mix of the speakers' responses in terms of gender can be seen in Table No. 4. Based on the information obtained, among the 250 people who participated in this research, more than three quarters (76.8 percent) were women and another quarter of the respondent population (23.2 percent) were men.

#### Table No. 4: Status of participants by gender

Frequency Percent Percent Credit Cumulative Percent

Valid female 192 8/76 8/76 8/76

Male 58 2/23 2/23 100

Total sum 250 100 100

Based on table number 5, about three quarters of these people (70%) are married and only a small percentage of these people (5.6%) declared their status as divorced or widowed. The rest of them, that is, nearly a quarter of the respondent population (24.4%) were single.

#### Table No. 5: Status of participants by marital status

Frequency Percent Percent Credit Cumulative Percent

Valid single 61 4/24 4/24 4/24

Married 175 0/70 0/70 4/94

Divorced or widowed 14 5/6 5/6 100

Total sum 250 100 100

Based on table number 6, it shows that about half of the respondent population (48.8 percent) had a graduate degree and about a quarter of the people in this group (23.2 percent) had a bachelor's degree. The frequency of these people in other educational levels, in descending order, has been obtained as follows: 9.2% PHD, 8.8% postgraduate, 6% general practitioner and 4% specialist.

## Table No. 7: Status of the participants in terms of the level of education of the participants

Frequency, percentage, percentage, cumulative percentage

Valid diploma and postgraduate diploma 22 8/8 8/8 8/8

Bachelor 58 2/23 2/23 32

Master's degree 122 8/48 8/48 8/80

General practitioner 15 0/6 0/6 8/86

Specialist doctor 10 0/4 0/4 8/90

PHD 23 2/9 2/9 100

Total sum 250 100 100

The responses given in Table No. 8 show that nearly three quarters of the responding population (67.2%) did not have a history of any of the underlying diseases. Meanwhile, a number of people have admitted that they had a history of suffering from a type of disease that was not included in the questionnaire. The percentage of other respondents suffering from the desired diseases, in descending order, was as follows: high blood pressure 7.6%, diabetes, depression, nervous and mental each 3.6%, and cardiovascular diseases 2 3 percent.

#### Table No. 9: Participant's profile according to having earth disease

Frequency Percent Percent Credit Cumulative Percent

Valid none 168 2/67 2/67 2/67

Diabetes 9 6/3 6/3 8/70

Cardiovascular 8 2/3 2/3 0/74

High blood pressure 19 6/7 6/81

Depression 9 6/3 6/3 2/85

Nerves and psyche 9 6/3 6/3 8/88

Other diseases 11/2/28 11/2 100

Total sum 250 100 100

In the answers of the participants, it is included about the presence or absence of regular sports activity (more than 3 times a week and more than 30 minutes each time). As can be seen, more than two-thirds of the responding population (68%) gave a negative answer to this question and nearly one-third of them (32%) gave a positive answer.

## Table No. 14: Details of the participants infected with Corona during the last month

Frequency Percent Credit Cumulative Percent

Valid no 199 6/79 7/87 7/87

Yes 28 2/11 3/12 100

Total sum 227 8/90 100

Missing System 23 2/9

Total sum 250 100

### Inferential data analysis

Next, the analysis of the information obtained from the job performance and fear of corona questionnaires was done. On the other hand, the average score of social dysfunction sub-index was equal to 11±2. This score indicates that people are in a borderline situation between moderate and mild in their interpersonal and work relationships; Therefore, it is appropriate to identify people who have obtained higher scores in this section and provide them with in-service training in the field of effective communication skills.

#### Job Performance

The job performance status of the respondents is presented in tables No. 13 and 14. The obtained results show that the vast majority of respondents (97%) are in a strong position in terms of job performance, and only 1% of them were at an average level in this aspect. It is worth noting that none of these people were at the level of poor performance. Table No. 13: Job performance status of the participants using Patterson's Job Performance Questionnaire Abundance Status Percent Credit Cumulative Percent Average Valid 2 0/1 0/1 0/1

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Strong 244 0/97 100 0/99

Total sum 246 0.98 100

Missing System 4 0/2

Total sum 250 100

#### Fear of Corona

In table number 14, there is a summary of the responses of the subjects about their fear of Corona. In this table, data about central and dispersion indicators are presented. As the results show, the average fear of Corona for 249 respondents was equal to  $18\pm4$ , which indicates a moderate level of fear.

## Table number 18: Central and dispersion indicators of the fear of corona questionnaire

Valid number 249

Missing 1

Average 18

Middle 19

Fashion 21

Standard deviation 0.4

Variance 0.20

At least 7

Maximum 28

It should be mentioned that the values obtained for the mean and mode in this index are equal to 19 and 21, respectively. On the other hand, the minimum value obtained was equal to 7 (the minimum possible score in this questionnaire) and its maximum value was equal to 28 (the maximum possible score in this questionnaire). Inferential analysis of data / investigation of research hypotheses In this section, the results of examining the hypotheses are presented separately. Since the demographic variables included in this research were more than one; So, the multivariate regression method was used to check the relevant hypotheses. But in the hypotheses that the effect of only one independent variable was desired; Linear regression method was used.

## Table No. 26: Correlation rate of hypothesis No. 4 variables based on coefficients

Model of unstandardized regression effect coefficients Standardized regression effect coefficients t Sig. Correlations B Std. Beta error, zero order correlation, discriminant/partial correlation, semi-discriminant/semi-discriminant correlation 1 (Constant) 071/13 150/1 367/11 0/000 fear of corona

Hypothesis No. 5: The amount of collective panic resulting from the social crisis of Covid-19 is effective on the social functioning of the Ministry of Health employees. As can be seen in Table No. 35, the value of the multiple correlation coefficient between the independent and dependent variable is equal to 0.389 and the value of the corresponding coefficient of determination is equal to 0.151. Also, the value of the adjusted determination coefficient is equal to 0.148, which shows that the independent variable of the level of collective panic resulting from the social crisis of Covid-19, was able to explain 14.8% of the changes in the dependent variable of social functioning, and the rest of these changes (2 85.0%), is influenced by variables outside the model. The value of the standard error of estimation is equal to 2.687.

#### Table No. 27: Summary of model fit of hypothesis No. 5

Multiple correlation coefficient model, coefficient of determination, adjusted coefficient of determination, standard error of estimation

0.389.1 0.151.0 0.148 2.687

The results of variance analysis related to the fifth hypothesis can be seen in Table No. 36. In the third column, the sum of squares and in the fourth column, their degrees of freedom are presented. The degree of freedom of the regression obtained for these variables was equal to 1 and the degree of freedom of the corresponding residual was equal to 247. In addition, the average of squares for regression was equal to 318.021 and for the residual it was equal to 7.218.

Considering that the resulting F value (44.058) was also significant at the level of error smaller than 0.05, so it can be concluded that the collective fear variable resulting from the social crisis of Covid-19 had a high explanatory power. And it is able to explain well the amount of changes and variable variance of the social function of the employees of the Ministry of Health. In other words, the regression model under investigation, the model. The investigated regression is a suitable model and is well able to explain the changes of the dependent variable based on the mentioned independent variable.

## Table No. 28: Results of variance analysis of hypothesis No. 5 variables based on ANOVA

Sum of Squares Model Degree of Freedom Mean Squares F Sig.

1 regression 021/318 1 021/318 058/44 0000

Remaining 895/1782 247 218/7

Total sum 916/2100 248

Table No. 28 shows the influence of each variable in the model as well as the correlation between them. The beta coefficient in the first part of the table shows the standardized regression effect coefficient of mass panic resulting from the social crisis of Covid-19 on social functioning. It is clear that collective panic resulting from the social crisis of Covid-19 has shown a significant inverse effect (0.389) on social functioning. In this way, for an increase of one standard deviation in the collective fear variable resulting from the social crisis of Covid-19, the amount of social functioning in an individual will decrease by 0.389 standard deviations. The values related to zero-order correlation, partial/separative correlation, and semi-separative/semi-separative correlation in the second part of the table are also equal to this value.

## Table No. 29: Correlation rate of hypothesis No. 5 variables based on coefficients

Model of unstandardized regression effect coefficients Standardized regression effect coefficients t Sig. Correlations B Std. Beta error, zero order correlation, discriminant/partial correlation, semi-discriminant/semi-discriminant correlation 1 (Constant) 16/484 0.721/0 852/22 0.000

Fear of Corona 0.250 0.038 0.389 0.638 0.000 0.389 0.389.0

Table No. 37: Summary of model fit of hypothesis No. 6

Multiple correlation coefficient model, coefficient of determination, adjusted coefficient of determination, standard error of estimation

194.0 038.0 034.0 4.433

The results of variance analysis related to the sixth hypothesis can be seen in Table No. 39. In the third column, the sum of squares and in the fourth column, their degrees of freedom are presented. The degree of freedom of the regression obtained for these variables was equal to 1 and the degree of freedom of the corresponding residual was equal to 247. In addition, the average of squares for the regression is equal to 190/790 and for the residual is equal to 19/650.

As can be seen in the table, the F value is equal to 9.710 and the obtained significance is equal to 0.002; Therefore, since the error level is smaller than 0.05, the result is significant. Therefore, it can be concluded that the collective fear variable resulting from the social crisis of Covid-19 has a high explanatory power and is able to explain the amount of changes and variance of the depression variable of the Ministry of Health employees.

Table No. 38: Results of variance analysis of hypothesis No. 6 variables based on ANOVA

Sum of Squares Model Degree of Freedom Mean Squares F Sig.

1 regression 190/790 1 190/790 9/710 0.002

Remaining 475/4853 247 650/19

Total sum 248/5044 265

#### Table No. 39: Correlation rate of hypothesis No. 6 variables based on coefficients

Model of unstandardized regression effect coefficients Standardized regression effect coefficients t Sig. Correlations B Std. Beta error, zero order correlation, discriminant/partial correlation, semi-discriminant/semi-discriminant correlation 1 (Constant) 6.977 190.1 862.5 0.000 fear of corona

Hypothesis No. 7: Demographic variables of Ministry of Health employees are effective on the job performance of Ministry of Healthemployees.

As can be seen in Table No. 41, in the former model, the value obtained for the multiple correlation coefficient between independent and dependent variables was equal to 0.415 and for the corresponding coefficient of determination, it was equal to 0.173.In this table, the adjusted coefficient of determination is equal to 0.049, which shows that the independent demographic variables have been able to explain only 4.9% of the changes in the dependent variable of job performance. Therefore, the rest of the changes (95.1%) are influenced by variables outside the model. In the last column, the value of the standard error of estimation, which indicates the level of predictive power of the regression equation; It is equal to 11/397.

## Table No. 40: Summary of model fit of hypothesis No. 7

Multiple correlation coefficient model, coefficient of determination, adjusted coefficient of determination, standard error of estimation

1 415.0 173.0 049.0 7.429

Table No. 42 shows the results of variance analysis for the seventh hypothesis. In the third column, the sum of squares and in the fourth column, the degrees of freedom related to them are shown. Here, the regression degree of freedom is 28 and the residual degree of freedom is 188. On the other hand, the average of squares for regression is equal to 77.31 and for the residual is equal to 55.19.

The point is that the F value obtained (1.401) was not significant at the error level smaller than 0.05, so it can be concluded that the entered demographic variables did not have a high explanatory power and were not able to change the amount of changes and variance of the dependent variable. explain well. In other words, the regression model under investigation is not a good model and we are not able to explain the changes in the dependent variable of job performance based on the desired independent variables. Table No. 43 shows the results related to the influence of each variable in the model as well as the correlation between them. The

Table No. 43 shows the results related to the influence of each variable in the model as well as the correlation between them. The first part of the table shows the regression effect coefficients of each independent demographic variable on job performance. The beta coefficient represents the standardized regression effect coefficient of each of the independent variables on the dependent variable of the research.

## Table No. 41: Results of variance analysis of the variables of hypothesis No. 7 based on ANOVA

Sum of Squares Model Degree of Freedom Mean Squares F Sig.

1 regression 2164/751 28 77/313 401/1 098/0

Remaining 392/10376 188 194/55

The total sum is 216/12541/143

As can be seen in this column, the degree of diploma and postgraduate education has shown a significant direct effect (0.046) on job performance. In addition, neurological and mental diseases have had a significant inverse effect (0.003) on job

performance. Considering that the error level of the t value of other demographic variables in the table was higher than 0.05, it should be said that they did not affect the job performance variable.

On the other hand, the two mentioned variables have had the highest regression effect on the job performance variable. For example, for an increase of one standard deviation in the variable of mental and nervous diseases, the job performance of a person will decrease by 2.990 standard deviations. The second part of the table shows the result of three types of correlation as follows: Zero order correlation, which is equivalent to Pearson's correlation coefficient and shows the degree of correlation between variables without the presence of a control variable. In the following table, work history has shown the highest zero-order correlation (0.177). Partial correlation is a type of statistical control through which the effect of one or more variables can be controlled. The higher the correlation for a variable, the greater the role of that variable in the model. As can be seen in the table, in this column, the variable of diploma and post-diploma education has the highest differential correlation value (0.145).

Semi-separate / quasi-separate correlation is also a type of statistical control. This coefficient shows the degree of correlation between an independent variable and the dependent variable after removing the linear effect of other independent variables on the independent variable (not the dependent variable) in question. In this case, the higher the correlation for a variable, the greater the role of that variable in the model. Here we also see a high semi-separate correlation (0.133) in the mentioned variable.

Table No. 42: Correlation of the variables of Hypothesis No. 7 based on Coefficients

Model of unstandardized regression effect coefficients Standardized regression effect coefficients t Sig. Correlations B Std. Beta error, zero order correlation, discriminant/partial correlation, semi-discriminant/semi-discriminant correlation (Constant) 68.501 14.447 4.742 0.000 0.004 0.024 0.014 0.177 0.859 0.063 0.013 0.012 Age 0.042 0.030 Number of children 0.289 0.692 0.039 0.417 0.677 0.028 0.204 0.085 0.093 Height 0.111 0.087 0.133 1.274 0.085 Weight 0.005 0.052 0.009 0.104 0.918 0.003 0.008 0.007 0.215 0.113 0.091 0.127 1.243 0.177 Work experience 0.090 0.082 2.313 Artificial 1 4.650 0.173 2.011 0.046 0.126 0.145 0.133 education Artificial education 2 0.712 1.370 0.039 0.520 0.604 0.027 0.038 0.034 Artificial education 4 3.223 2.269 0.1081.421 0.157 0.133 0.103 0.094 5 Artificial education 0.535 3.443 0.012 0.155 0.877 0.031 0.011 0.010 Artificial 6 2.054 0.228 0.015 education 0.469 0.017 0.820 0.045 0.017 artificial income 1 2.534 2.591 0.087 0.978 0.329 0.007 0.071 0.065 artificial income 2 0.253 1.440 0.014 0.176 0.861 0.016 0.013 0.012 artificial gender 2 0.914 1.817 0.050 0.503 0.615 0.019 0.037 0.033 Artificial marital 1 0.293 1.677 0.016 0.175 0.862 0.025 0.013 0.012 status Artificial marital status 3 3.168 3.060 0.079 1.035 0.302 0.118 0.075 0.069 1.447 1.380 0.078 0.954 0.341 0.018 Industrial 0.069 0.063 occupation 2 Artificial employment 3.523 2.257 0.134 1.561 0.120 0.106 0.113 0.104status 1 Artificial 3 3.772 0.094 0.254 employment status 3.300 1.143 0.060 0.083 0.076 Artificial employment status 4 4.302 2.200 0.148 1.956 0.052 0.153 0.141 0.130 5 artificial employment status 0.503 1.416 0.032 0.355 0.723 0.079 0.026 0.024 Artificial underlying disease 1.360 2.849 0.036 0.477 0.634 0.031 0.035 0.032 1 Artificial underlying disease 2 2.465 3.224 0.061 0.765 0.446 0.005 0.0560.051underlying 3 0.406 0.008 0.055 Artificial disease 1.852 2.222 0.062 0.834 0.061 Artificial 4 4.990 2.929 1.704 underlying disease 0.124 0.090 0.114 0.123 0.113 Artificial 5 8.611 2.880 2.990 0.003 underlying disease 0.226 0.167 0.213 0.198 Artificial underlying disease 6 0.497 2.044 0.018 0.243 0.808 0.070 0.018 0.016 Artificial 1.191 0.074 1.002 0.053 regular activity 2 1.193 0.318 0.073 0.066sports artificial corona infection 2 0.897 1.679 0.038 0.534 0.594 0.023 0.039 0.035

Hypothesis No. 8: The level of collective panic resulting from the social crisis of Covid-19 is effective on the job performance of the employees of the Ministry of Health.as.

As can be seen in Table No. 44, the value obtained for the multiple correlation coefficient between the independent and dependent variable was equal to 0.191 and for its coefficient of determination, it was equal to 0.036. On the other hand, the value of the adjusted coefficient of determination is equal to 0.033, which shows that the independent variable of the level of collective panic resulting

from the social crisis of Covid-19 was able to explain only 3.3% of the changes in the dependent variable of job performance, and the rest of these changes (96.7 percent), is influenced by variables outside the model. The value of the standard error of estimation is equal to 7.397.

#### Table No. 43: Summary of model fit of hypothesis No. 8

Multiple correlation coefficient model, coefficient of determination, adjusted coefficient of determination, standard error of estimation

191.0 036.0 033.0 7.397

Table No. 45 shows the results of variance analysis related to the eighth hypothesis. In the third column, the sum of squares and in the fourth column, the degrees of freedom related to them are shown. The degree of freedom of the regression obtained for these variables was equal to 1 and the corresponding residual degree of freedom was equal to 243. On the other hand, the average of squares for the regression is equal to 503.36 and for the residual is equal to 54.71.

The point is that the F value obtained (9.2) was significant at the error level of less than 0.05, so it can be concluded that the collective fear variable resulting from the social crisis of Covid-19 has a suitable explanatory power and is capable of Explain the changes and variance of job performance variable well. In other words, the regression model under investigation is a good model and is able to explain changes in the dependent variable based on the desired independent variable.

#### Table No. 44: Results of variance analysis of the variables of hypothesis No. 8 based on ANOVA

Sum of Squares Model Degree of Freedom Mean Squares F Sig.1 regression 357/503 1 357/503 9/200 0/003

Remaining 843/13295 243 715/54

The total sum is 244/13799/200

Table No. 46 shows the influence of each variable in the model as well as the correlation between them. The beta coefficient in the first part of the table shows the standardized regression effect coefficient of mass panic resulting from the social crisis of Covid-19 on job performance. Collective panic resulting from the social crisis of Covid-19 has shown a significant inverse effect (0.191) on job performance. Thus, for an increase of one.

One standard deviation in the collective panic variable resulting from the social crisis of Covid-19, the level of job performance in the individual increased by 0.191 standard deviation. The values related to zero-order correlation, partial/separative correlation, and semi-separative/semi-separative correlation in the second part of the table are also equal to this value.

## Table No. 45: Correlation rate of hypothesis No. 8 variables based on coefficients

Model of unstandardized regression effect coefficients Standardized regression effect coefficients t Sig. Correlations B Std.Beta error, zero order correlation, discriminant/partial correlation, semi-discriminant/semi-discriminant correlation 1 (Constant) 547/45 014/2 612/22 0/000

Fear of Corona 0.318 0.105 0.191

Considering the spread of the covid-19 pandemic in the world and the effect it can have on the public health and job performance of people, this study examines the state of collective panic resulting from the social crisis of covid-19 and its effect on the public health and job performance of employees of the Ministry of Health in Tehran. Paid. In the following, the findings from the hypotheses of this study are discussed.

#### CONCLUSION

This study was designed and implemented with the aim of investigating the effect of mass panic on the job performance of Ministry of Health employees during the Covid-19 pandemic. The findings of this study showed that collective fear has an effect on the index of social functioning. On the other hand, people's job performance is also affected by these conditions and fear caused by Covid-19. Other findings in this study showed that the variable of diploma and post-diploma education level has a direct effect and mental illnesses have an inverse effect on people's job performance. more limited and careful comparison of the results of this study with other studies; Considering the novelty of the research and the inadequacy of similar studies in the field of investigated variables; comparing its results with studies in different population groups; Because many studies have investigated the effect of panic caused by covid-19 on the general population or medical staff facing covid-19, and there are few studies on the effect of this social crisis

on other occupational groups. Therefore, the findings of this study have been compared with the results of studies in the general population or the treatment staff and the front line of Covid-19.

Considering the conditions of this study and the critical situation due to the pandemic, it is suggested that similar studies be conducted in various occupational groups as well as in the general population. Also, with regard to the disease and quarantine, many studies that have investigated public health have focused on the issue of physical symptoms, anxiety, sleep disorder and depression, and studies especially in the field of the relationship between fear caused by Corona and social functioning. The title of a general health indicator subcomponent in the GHQ questionnaire is very limited and rare. Therefore, it is recommended to pay more attention to this index of public health components in future studies. Due to the fact that covid-19 is a common disease in the last one year and the small number of questionnaires available in the field of measuring the fear caused by covid-19, in this study, the fear of corona questionnaire was validated, which included 7 questions on the Likert scale. is used It might be better to use questionnaires that are designed and validated for this purpose in future studies and compare their results.

Also, considering that the job performance index is influenced by the psychological and personality conditions of people as well as the quality of life of people in addition to demographic variables and environmental conditions, it is necessary to address this variable in future studies along with other used variables.

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