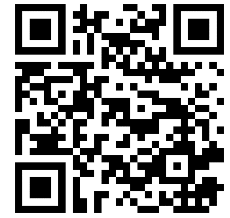


## **He Study of Mass Panic Resulting from the Social Crisis of Covid-19 and its Effect on the Public Health of the Employees of the Ministry of Health in Tehran (Statistical Study of the Employees of the Ministry of Health, Treatment and Medical Education of the Country)**



**Dr. Seyed Mohammad Reza Rashidi Al Hashem<sup>1</sup>, Mehro Mohammad. Sadeghi<sup>2</sup>**

<sup>1</sup>Associate Professor of Sociology at Imam Hossein University of Officer Training and Guard Training,

<sup>2</sup>Graduated as a senior expert in social science research

**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 and the impact of stress caused by it. This study intends to investigate the effect of mass panic caused by Covid-19 on the public health of the employees of the Ministry of Health. 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. The data collection tools were two demographic questionnaires, Goldberg's General Health Questionnaire (GHQ) and 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  $44.11 \pm 23.74$  and their average work experience was  $16.07 \pm 8.66$ . The findings of this study showed that collective panic caused by covid-19 had a significant effect on the general health component and sub-components of physical symptoms, anxiety and sleep disorder, depression. Height variable, direct relationship with general health; The variable of diploma and post-diploma education. It seems

**KEYWORDS:** Corona fear, public health, physical symptoms, sleep disorder, depression, anxiety, 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 affected by 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 restrictions on exports, the closure of many manufacturing and service companies and quarantine, the fear and panic caused by the possibility of contracting this virus and the damage caused by it, affect all aspects of people's lives. Transformed and turned this epidemic into an international social crisis. The spread of the corona virus pandemic, as a social and environmental crisis, is an issue that has fundamentally changed the international relations, behaviors and daily activities of all people on the planet in recent months. The declaration of an emergency by the World Health Organization for all people and the change in living conditions in all countries, infection and death statistics, in addition to being considered a threat to human physical health, can also endanger people's mental health. Simultaneously with the announcement of the globalization of this emerging disease and the warnings of all countries to comply with quarantine, reduce social physical contact and the high speed of the spread of this disease, an international social and environmental crisis was formed, which caused collective panic and anxiety in all people. . In fact, one of the damages and unfortunate consequences of this pandemic disease was the reaction and collective behavior caused by the collective panic of this crisis (Tahmasabi ,2019). The wave of panic caused by the rapid global spread of Corona created a collective and global stressful social and psychological phenomenon that contains common 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 destruction caused by this global epidemic and the daily statistics of death and destruction from various news sources, the fear of death and dealing with corpses due to its special conditions, as the most important factor of social panic in this situation, conflicting news and Spreading rumors through social networks, hoarding of face masks, the increase in the price of some food items, the sudden surge in the purchase of health goods and their scarcity, and the citizens' lack of trust in the country's health system were among the factors that caused this wave of panic. Panic is a mental state that is gradually achieved by conditioning against a threatening stimulus, and the society is faced with anxiety disorder, obsession. The rush of citizens to pharmacies and health product distribution centers to buy hygiene products is a natural behavioral response to the loss of psychological control (Tahmasabi 2019). On the other hand, this collective panic caused by the rapid spread

# **He Study of Mass Panic Resulting from the Social Crisis of Covid-19 and its Effect on the Public Health 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)**

of Covid-19, high mortality, failure of the government to contain the disease, false information, lack of essential items and other factors related to this pandemic, affects public health and especially the mental health of everyone. Populations will have many effects (Farmer 2020) that need extensive investigation.

Panic is a relatively unstructured, spontaneous, emotional and unpredictable type of 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 differs from normal forms of individual daily behavior because the norms and roles that determine our daily behavior do not have the same effect on collective behavior. (Koen 2016).

Collective behavior occurs in a group of people who are excited for a specific reason and are emotionally prepared, i.e. they are angry, fearful, happy or anxious. The occurrence of emotional reactions causes it to be transmitted to other people. When emotions spread, reactions intensify, and in this way, people reinforce each other's reactions. (Koen 2016). The primary and determining factors of collective behavior are: The structural context, that is, the structure of the society must be such that a certain form of Structural pressure When pressure is imposed on society, people are often motivated to work together to find an acceptable solution. Generalized belief, before finding a solution for a problem, everyone must accept that such a problem exists, so the problem must be known, public opinion should pay attention to it, and possible solutions should be presented for it. Accelerating factors, for the emergence of collective behavior, an important event must first make people react collectively. This particular event is often exaggerated by rumours, making it appear more dramatic. Considering the health consequences of the corona pandemic in the world, this study intends to investigate the effect of mass panic on public health and job performance of people in the current crisis situation.

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 around the world and their normal and everyday life. Unfortunately, the effects of this pandemic on public health have not been studied so far. The wave nature of this virus (Moukaddam and Shah 2020), the unknown causes and ways of its control and treatment, its rapid transmission and global spread, high mortality, extensive and severe quarantine, lack of medical and therapeutic facilities and equipment, and shortage Medical personnel and the spread of disease in the medical staff, mistrust of officials, conflicting news and widespread rumors in social networks, all have caused widespread fear and hysteria and strong reactions in the people of the world (Jakovljevic, Bjedov et al. 2020).

In this way, considering the importance of the problem in this group of employees, this study intends to investigate the situation of mass panic resulting from the social crisis of Covid-19 and its effect on the public health of the employees of the Ministry of Health in Tehran. The main purpose of this research is: to study the mass panic resulting from the social crisis of Covid-19 and its effect on public health and job performance of employees of the Ministry of Health in Tehran.

In addition to the main goal, this research can also pursue the following practical and secondary goals:  
1 Investigating the status of demographic variables on the general health of Waza employees.

## **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 unreasonable 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 related to them. Crisis means making a decision about the continuation or non-continuation of phenomena and affairs. The emergence of crises has many 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 a systemic point of view, a crisis is a strong blow or shock to the structure that maintains the entire system and keeps its parts and elements together. Therefore, any systemic 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). Crises are events that rarely occur due to unpredictable variables. Crisis can happen in different ways and have many consequences. Such as danger to public safety, financial or life damage, etc. Crisis is an unstable situation during which a sudden change occurs in one or more parts of regular components (Nouri and Khazaei 2016). Crisis is caused by the change of normal situation to abnormal and risky (Shrivastava).

# **He Study of Mass Panic Resulting from the Social Crisis of Covid-19 and its Effect on the Public Health 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)**

## **General health**

Health is recognized as a human right and a social goal in the world and is vital for satisfying basic needs and improving the quality of human life. According to the statutes of the World Health Organization, public health is the complete physical, mental and social well-being of an individual; that there is mutual and dynamic influence between these three aspects; Therefore, based on this definition, health does not include only the physical aspects of people, but also the psychological and social aspects.

## **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 exposed to serious threat and danger. The stages before the crisis are called challenges. Whenever the relevant challenges are solved, the studied phenomenon will be safe from the crisis. The crisis is examined from different angles, including "dimensions" and "stages". The crisis has different political, economic, social, military and environmental dimensions. Every crisis has three stages that can be distinguished: the emergence and occurrence of the crisis, facing the crisis and exiting the crisis (Management Consultants and Strategic Studies Group, 2019).

Social crisis can be considered as a stimulus for collective behavior. A social crisis can provoke people. A crisis is caused by an unplanned phenomenon that damages processes and the environment (Azizi, Rashidi et al.2018). One of the main axes in every crisis is the impact of the crisis on the manner 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).

By stimulating people and showing reactions 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 do not 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 crisis in the system, governmental decision-making crises and international confrontation crises. What is called "social crises" falls into the first two categories. Social crisis is related to structural crises and functional crises in the numerous systems or sub-systems existing at the level of society. What is referred to as social crisis expresses the pathologies of the crisis in various areas 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 in multiple subsystems. It is economic, political, social and cultural of different societies. Social crisis is a kind of structural/functional dual division (Nowzari 2005).

### **Corona and the covid 19 virus**

On December 31, 2019, the Wuhan Municipal Health Commission reported a number of unknown pneumonia cases related to Huanan Seafood Wholesale Market, 27 cases were hospitalized, seven of which were serious. On February 5, 2020, the Wuhan Municipal Health Committee reported that 59 cases of viral pneumonia of unknown cause were detected in Wuhan, including seven severe cases, but no clear evidence of "human-to-human" transmission was found. On January 11, the Wuhan Municipal Health Committee confirmed a new report that initially identified the pathogen of viral pneumonia of unknown cause as the novel coronavirus. On February 20, 2020, it was officially confirmed that "human-to-human" transmission and nosocomial infection had occurred. From February 16, 2020, the number of cases increased rapidly and the number of deaths increased rapidly ( Deng and Peng 2020).

The spread of this virus in the last days of 2019 and its continuation globally 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 during the last year. . This disease has affected everyone in different ways, including physical, mental, emotional, economic, social and psychological.

The Covid-19 virus, like the SARS virus that was prevalent in the past few years, is transmitted through respiratory tract secretions, contact with surfaces or person to person, and also through airborne 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 the worsening of a person's 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).

### **Public health consequences of the Corona era**

A large part of the world's population has been staying at home during the last year due to quarantine, remote work and restrictions on travel and recreation around the world and home quarantine strategies in most countries to prevent further transmission of the disease. The uncertain and unpredictable spread of this infectious disease has caused global awareness, anxiety and distress, all of

## **He Study of Mass Panic Resulting from the Social Crisis of Covid-19 and its Effect on the Public Health 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)**

which are normal psychological reactions to sudden situations according to the World Health Organization (HNP. 2020). This global awareness and anxiety can create mass hysteria and rapid panic about Covid-19, accompanied by persistent psychological problems in society in all socioeconomic areas, which can potentially be even more harmful in the long run than the virus itself. (Depoux, Martin et al. 2020). Previous studies show that mental health is severely affected in this type of global pandemic (Dubey, Biswas et al. 2020). Therefore, it is a necessity to determine the different possible methods for the impact of the Covid-19 pandemic on mental health at the global level (Zandifar and Badrfam 2020).

Like the outbreak of Sars in 2003, it seems that one of the consequences of contracting Corona is the fear and anxiety caused by the stigma of this disease and isolation, social fear and discrimination and rejection as its consequences. A society with such fear and stigma tends to delay seeking medical care and hide its medical history. This behavior, in turn, increases the risk of community transmission (Dubey, Biswas et al. 2020).

### **Mass panic about 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 likely due to the unknown and vagueness and unpredictable course of the disease, the perceived risk of contracting the infection and other factors, and can affect responses. Psychological negativity including maladaptive behaviors, emotional distress, and avoidant reactions among normal people (Taha, Matheson et al. 2014). During an outbreak, news of death, acceleration in the number of new cases, and widespread media attention can increase people's fear, hopelessness, helplessness, and anxiety about the situation. This leads to inappropriate protective behaviors and help-seeking 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).

#### **Background research**

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

#### **Foreign 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 investigated. The results showed that Taiwanese have significant 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 significantly facilitates employees to improve their job performance in different work environments, especially when enduring a difficult situation (Lee, Peng et al. 2021). In a study by Kumar and his colleagues (2021) titled "Working in Quarantine: The Relationship between Stressors Caused by Covid-19, Job Performance, Distress and Life Satisfaction", it was determined in this study that the increase in workload and change in style choice Life does not have a significant effect on the performance of Sheffley under quarantine conditions. But the effect of distraction in the family, job discomfort, and especially the distress caused by this situation, had a significant 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 according to the age of the respondents, elderly people are more worried than young people. At the same time, there is no significant age difference in terms of fear of being 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 percent of the participants are worried or very much.

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).

Morning Consult conducted a survey titled "National Tracking Survey" in (2020). The results of this survey show that participants were more worried about Covid-19 than seasonal flu (Morning Consult. 2020).

#### **Studies in Iran**

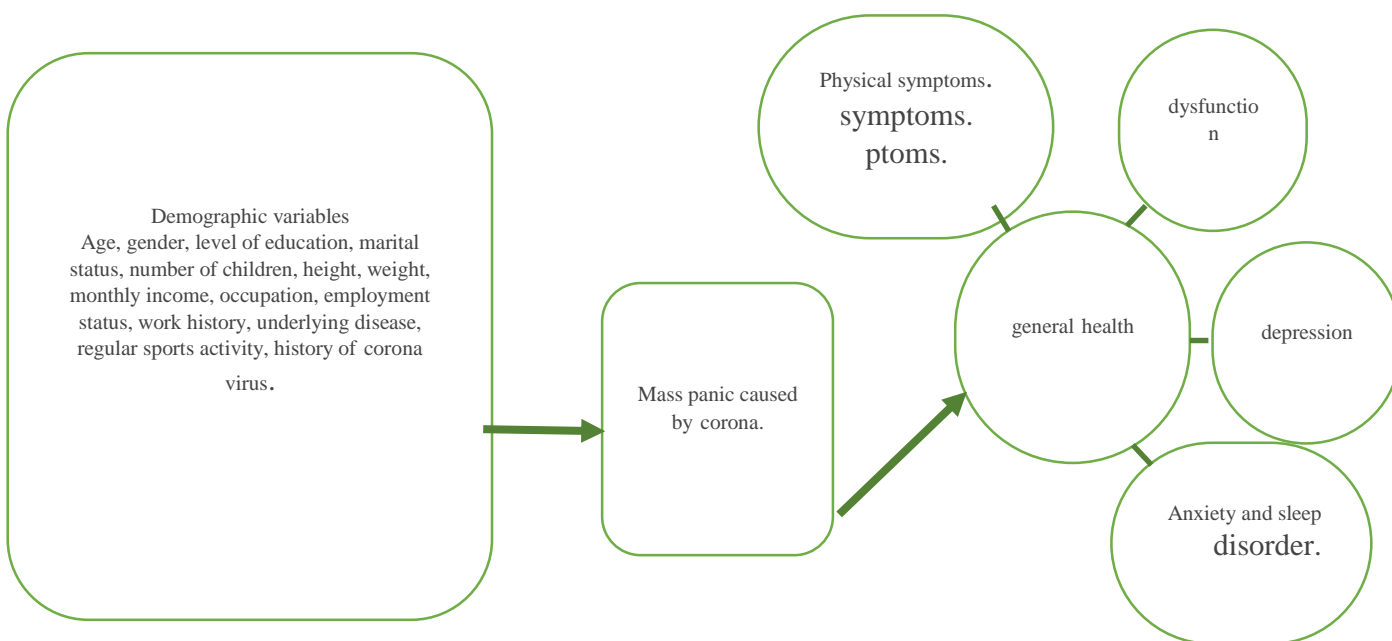
In the study of Portimore and his colleagues (2021) entitled "The relationship between mental work and job performance among Iranian nurses who take care of a patient with covid-19, the results showed that the mental workload of nurses increased during the covid-19 pandemic." The increase in the workload of health care workers during the Covid-19 pandemic affects their job performance, causes medical errors, increases the death rate of patients, 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

## He Study of Mass Panic Resulting from the Social Crisis of Covid-19 and its Effect on the Public Health 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)

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 by Nagarestani et al. (2021) entitled "Mental health of the elderly in the covid-19 pandemic: the role of exposure to the media", the general health of 200 elderly covered by daily rehabilitation centers and retirement centers in Kerman city was investigated using the GHQ 12 questionnaire. 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 investigated 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 unfavorable situation of nurses have created a contradiction. Nurses need more support in caring for Covid-19 (Karimi, Fereidouni et al. 2020). In a study by Shoja and his colleagues (2020) entitled "Effects of Covid-19 on the workload of Iranian health care workers", the impact of Covid-19 on the general health status based on the GHQ 12 general health questionnaire and the workload based on the NASA TLX load index questionnaire, nurses, Doctors, emergency medical service personnel, clinical and public health technicians who work in the Ministry of Health, Treatment and Medical Education of Iran paid. 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 among employees who had contact with Covid-19 patients, 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 "General mental health status, level of resilience and spiritual intelligence in medical staff facing with Covid-19 patients in Bandar Abbas Prophet's Hospital", the results of this study showed that mental health There was no significant correlation with demographic characteristics such as age and gender. Also, the comparison of the mental health scores of nurses working in the covid department and nurses working in the covid special care department also showed that there is no significant relationship between the 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).



### Hypotheses

#### the main hypothesis

The collective panic resulting from the social crisis of Covid-19 is effective on public health and the job performance of the employees of the Ministry of Health.



# He Study of Mass Panic Resulting from the Social Crisis of Covid-19 and its Effect on the Public Health 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)

## Sub-hypotheses

- 1 Demographic variables are effective on the general health of employees of the Ministry of Health.
2. The amount of mass panic resulting from the social crisis of Covid-19 is effective on the physical symptoms of the employees of the Ministry of Health.
3. The amount of mass panic resulting from the social crisis of Covid-19 is effective on the anxiety and sleep disorder of the employees of the Ministry of Health.
4. The amount of collective panic resulting from the social crisis of Covid-19 is effective on the depression of the employees of the Ministry of Health.
- 5 demographic variables are effective on the job performance of Ministry of Health employees.

## RESEARCH METHODS

This research is descriptive and analytical and was conducted 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 protocols and remote working of most 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 selected sample size was considered to be 340 people based on the following formula. The questionnaire in the form of Google Form was provided to the eligible people, and within two months, 250 questionnaires were completely completed and received. The same number was used in the analysis. Different methods are used to determine the sample size in research. Two common methods for this work are using Cochran's formula and Morgan's table. In this study, Cochran's formula was used, whose formula is shown in the following equation.

$$n = \frac{\frac{z^2 + pq}{d^2}}{1 + \frac{1}{N} \left( \frac{z^2 + pq}{d^2} - 1 \right)}$$

To collect data in this study, three demographic questionnaires or general and population information, general health questionnaire (GHQ) and self-made mass phobia questionnaire were used. Demographic information questionnaire, including questions about sex, age, height, weight, marital status and number of children, education level, employment status, occupation, work experience, income, and also questions about regular physical activity, history of illness and illness during A month had passed. After collecting the data of this study on the Google platform, it was received as an Excel output and then entered into the statistical software SPSS version 22. The data of this study was initially collected in an Excel file through Google Forms and after sorting and making the necessary edits, it was loaded into SPSS statistical software version 26. Before the implementation of the research, the Corona mass panic questionnaire had not been validated in the population of this study. Therefore, in the beginning, in order 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 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 the 7 items related to the index of fear or collective fear caused by Covid-19 have high reliability and, in other words, high internal consistency to measure this index. The value of the average and standard deviation statistics and the number of respondents' responses in each item are shown in Table No. 3.

### Table No. 2: Reliability Statistics

Cronbach's alpha Cronbach's alpha based on the standardized number of items  
0.871 0.872 7  
18/62 20/542 4/532 7.

# He Study of Mass Panic Resulting from the Social Crisis of Covid-19 and its Effect on the Public Health 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)

## FINDINGS

### Data description

Before examining the hypotheses, a variety of descriptive statistics methods were used to summarize the collected data and provide a description of the characteristics of the statistical sample of the research. This was done according to 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 ( $42.69 \pm 8.998$ ) was about 43 years and their average work experience ( $16.07 \pm 8.66$ ) was about 16 years. It should be mentioned that the average number of children among respondents ( $1.08 \pm 1.02$ ) was about one. On the other hand, the mean and standard deviation of height and weight in these people were  $166.34 \pm 9.26$  and  $70.43 \pm 13.55$  respectively.

### Table No. 3: Demographic characteristics of study participants

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' answers in terms of gender can be seen in Table No. 4. Based on the information obtained, among the 250 participants 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

According to the data in Table No. 5, about three quarters of these people (70 percent) are married and only a small percentage of these people (5.6 percent) 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

According to the data in Table No. 6, 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 this People in other educational levels, in descending order, have been obtained as follows: 9.2% PHD, 8.8% postgraduate, 6% general practitioner and 4% specialist.

### Table No. 6: 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

## He Study of Mass Panic Resulting from the Social Crisis of Covid-19 and its Effect on the Public Health 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)

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.

According to the data in Table No. 7, more than seventy percent of the respondent population (70.8 percent) had a monthly income between five and eight million tomans at the time of completing the questionnaire (2019). 8% have declared their monthly income less than three million tomans. The rest of the respondents (21.2 percent) are among the previous two groups in terms of income and have earned between three and five million tomans in a month.

### Table No. 7: Details of participants by monthly income

Frequency	Percent	Percent Credit	Cumulative Percent
Valid less than three million tomans	20	0/8	0/8
Three to five million tomans	53	2/21	2/29
Five to eight million Tomans	177	8/70	8/70
Total sum	250	100	100

According to the data in Table No. 8, nearly three-quarters of the responding population (67.2 percent) did not have a history of any underlying diseases. In the meantime, a number of people have admitted that they had a history of some kind 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. 8: Profiles of the participants, according to having ground disease

Frequency	Percent	Percent Credit	Cumulative Percent
Valid none	168	2/67	2/67
Diabetes	9	6/3	8/70
Cardiovascular	8	2/3	0/74
High blood pressure	19	6/7	6/7
Depression	9	6/3	2/85
Nerves and psyche	9	6/3	8/88
Other diseases	11	2/28	11/2
Total sum	250	100	100

According to the data in Table No. 9, regular sports activity (more than 3 times a week and more than 30 minutes each time) is included. 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. 9: Regular sports activity (more than 3 times a week and more than 30 minutes each time)

Frequency	Percent	Percent Credit	Cumulative Percent
Not valid	170	0/68	0/68
I have	80	0/32	100
Total sum	250	100	100

According to the data in Table No. 10, few of them (11.2 percent) answered this question positively. Meanwhile, a large number of respondents (79.6 percent) gave a negative answer to this question. It should be mentioned that a number of participants in the research (9.2%) left this question unanswered.

### Table No. 10: Profiles of the participants infected with Corona during the last month

Frequency	Percent	Percent Credit	Cumulative Percent
Valid no	199	6/79	7/87
Yes	28	2/11	3/12
Total sum	227	8/90	100



# He Study of Mass Panic Resulting from the Social Crisis of Covid-19 and its Effect on the Public Health 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)

Missing System 23 2/9  
Total sum 250 100

## Inferential data analysis

Next, the analysis of the information obtained from the questionnaires of general health, job performance and fear of corona was done.

### General Health (GHQ)

According to the data in Table No. 11, the overall score of general health and its standard deviation among these 250 respondents was equal to  $28 \pm 12$ . Considering that the average obtained from the cut-off point of the questionnaire, i.e. 24, is higher; Therefore, at the time of the research, the average score of the respondents' general health was in the range of serious condition. Another point is that the minimum value obtained for this index in the whole population was equal to 4 and its maximum value was equal to 77. In this way, the answers obtained from different people in the respondent population have covered from the least possible to the extreme situation.

### Table No. 11: Comparison of mean and standard deviation of mental health and its dimensions in study participants

Index of physical symptoms of anxiety and sleep disorder, disorder in social functioning, depression, general health	Number of 250	250	250	250	250
Average	7/03	6	11	3	28
Standard deviation	3	4	2	4	12
Minimum	0	0	0	0	4
Maximum	19	21	21	21	77

### Table No. 12: General health status of the participants based on the GHQ questionnaire

Abundance Status	Percent	Percent	Credit	Cumulative	Percent
Valid healthy	103	0/41	0/41	41	
Unhealthy	147	0/58	100	0/58	
Total sum	250	100	100		

According to the data in Table No. 19, during the implementation of this research, more than half of the respondent population were in a mentally unhealthy state (59%) and the rest (41%) were in a Healthy state.

### General health status

Frequency	percentage
Valid healthy	103 41
Unhealthy	147 59
Total	250 100

### Fear of Corona

According to the data in table number 13, the relevant data are presented based on the central and dispersion indicators. As the results show, the average fear of Corona for 249 respondents was equal to  $18 \pm 4$ , which indicates a moderate level of fear.

### Table No. 14: 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

## He Study of Mass Panic Resulting from the Social Crisis of Covid-19 and its Effect on the Public Health 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)

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. Because the demographic variables included in this research were more than one; Therefore, the multivariate regression method was used to investigate the relevant hypotheses. But in the hypotheses that the effect of only one independent variable was desired; Linear regression method was used.

#### **Hypothesis No. 1: Demographic variables are effective on the general health of employees of the Ministry of Health.**

According to the data in Table No. 15, for the multiple correlation coefficient between independent and dependent variables, it was equal to 0.549 and for the corresponding determination coefficient, it was equal to 0.301.

Considering that in the fourth column, the value of the coefficient of determination has been adjusted with the degrees of freedom, so it is better to use this value to interpret the coefficient of determination. In this table, the adjusted coefficient of determination is equal to 0.198, which shows that the independent demographic variables have been able to explain 19.8% of the changes in the dependent variable of public health. Therefore, the rest of these changes (80.2 percent), which is known as the squared error quantity ( $\epsilon^2$ ), is 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. 22: Summary of hypothesis model fit No. 1**

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

1 549.0 301.0 198.0 11.397

Table No. 13 shows the results of variance analysis. In this table, the source of dependent variable changes is shown in two rows of regression and residual. In this way, the larger the value of the residual sum of squares is than the regression sum of squares, it indicates the lower explanatory power of the model in explaining changes in the dependent variable; And vice versa. In the third column, the Sum of Squares and in the fourth column the degree of freedom (df) related to these two are shown. Here, the regression degree of freedom is 28 and the residual degree of freedom is 190. Mean Square is also calculated for each of them separately; which was equal to 379/91 for regression and 129/88 for the remainder.

In general, the value of F statistic indicates whether the regression model under consideration is a suitable model or not. Considering that the obtained F value (2.925) is significant at the error level of less than 0.01, therefore, it can be concluded that the entered independent variables have good explanatory power and are able to explain well the amount of changes and variance of the mean.

Table No. 13 shows the results related to the influence of each variable in the model as well as the correlation between them. In fact, this table consists of two main parts. The first part shows the regression effect coefficients of each independent demographic variable on public health. In this section, it is necessary to interpret the beta coefficient; Because this statistic shows the standardized regression effect coefficient of each of the independent variables on the dependent variable of the research. As seen in this column, the effect of height variable (0.04) on general mental health is significant. In addition, significant effects are also seen for some underlying diseases. These diseases include: high blood pressure (0.015), depression (0.001), nerves and psyche (0.00), and other diseases (0.019). On the other hand, because 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 general mental health variable. Also, the four mentioned variables have the highest regression effect on the public health variable. For example, for an increase of one standard deviation in the height variable, the amount of general mental health in a person will increase by 0.278 standard deviation. The second part of the table shows the result of three types of correlation as follows:

1. 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, having underlying neurological and mental diseases has shown the highest zero-order correlation.

2 Separate/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 same four variables have the highest differential correlation value. The obtained values are respectively: nerves and psyche (0.351), depression (0.234), height (0.206), high blood pressure (0.176) and other diseases (0.168).

3 Semi-discrete / quasi-discrete 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 degree of semi-separate correlation in the same four mentioned variables,

**He Study of Mass Panic Resulting from the Social Crisis of Covid-19 and its Effect on the Public Health 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)**

which are respectively: nervousness (0.313), depression (0.201), height (0.176), high blood pressure (0.149). ) and other diseases (0.143). Table No. 13: The degree of high semi-separation correlation in the variables of hypothesis No. 1 of the study

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)	24.639	22.076	1.116	0.266
Age	0.016	0.037	0.031	0.431
Number of children	0.838	1.056	0.068	0.793
Height	0.386	0.133	0.278	2.907
Weight	0.133	0.080	0.138	1.675
Work history	0.146	0.138	0.098	1.054
Artificial education	1	1.550	3.	

As can be seen in Table No. 15, the value obtained for the multiple correlation coefficient between independent and dependent variable was equal to 0.396 and for the corresponding coefficient of determination was equal to 0.157. The value of the adjusted coefficient of determination is equal to 0.153, which shows that the independent variable of the level of collective panic resulting from the social crisis of Covid-19 has been able to explain 15.3% of the changes in the dependent variable of public health. Therefore, the rest of these changes (84.7%) are influenced by variables outside the model. The value of the standard error of estimation is equal to 11.397; which shows the predictive power of the regression equation.

**Table No. 15: Summary of hypothesis model fit No. 2**

Multiple correlation coefficient model, coefficient of determination, adjusted coefficient of determination, standard error of estimation
1 396.0 157.0 153.0 11.513

Table No. 16 presents the results of variance analysis related to the second hypothesis. In the third column, the sum of squares and in the fourth column, the corresponding degrees of freedom are shown. 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. On the other hand, the average of squares for the regression is equal to 6078.65 and for the residual is equal to 132.56.

In addition, the calculated F value (45.86) was significant at the error level of less than 0.05, thus it can be concluded that the collective fear variable resulting from the social crisis of Covid-19 has a suitable explanatory power here. and is able to explain well the amount of changes and variance of the public health variable of the employees of the Ministry of Health. 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. 15: Results of variance analysis of hypothesis No. 2 of the study**

Sum of Squares	Model	Degree of Freedom	Mean Squares	F	Sig.
1 regression	6078/655	1	6078/655	0.000/45	857
Remaining	377/32741	247	556/132		
Total	032/38820	248			

Table No. 17 shows the results related to the influence of each variable in the model as well as the correlation between them. In fact, this table consists of two main parts. In the first part of the table, the regression effect coefficient of the amount of mass panic resulting from the social crisis of Covid-19 on public mental health is shown. Meanwhile, the beta coefficient represents the standardized regression effect coefficient of this independent variable on the dependent variable of the research. As can be seen, collective panic resulting from the social crisis of Covid-19 has shown a significant inverse effect (0.396) on public mental health. In this way, for an increase of one standard deviation in the collective fear variable resulting from the social crisis of Covid-19, the level of public health in an individual will decrease by 0.396 standard deviations. The amount of zero-order correlation, discriminative/partial correlation, and semi-discriminative/semi-discriminative correlation in the second part of the table were all equal to this value.

## He Study of Mass Panic Resulting from the Social Crisis of Covid-19 and its Effect on the Public Health 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)

### Table No. 16: Correlation rate of the variables of Hypothesis No. 2 of the study

Unstandardized regression effect coefficients model Standardized regression effect coefficients t Sig. Correlations  
B Std. Beta error, zero order correlation, discriminant/partial correlation, semi-discriminant/semi-discriminant correlation  
1 (Constant) 747/48 091/3 770/15 0000/0  
Fear of Corona 1/092 0.396/0 161

Hypothesis No. 3: The amount of collective panic resulting from the social crisis of Covid-

Since the calculated F value (33.805) was significant at the error level of less than 0.05, it can be concluded that the collective fear variable resulting from the social crisis of Covid-19 here has a suitable explanatory power and is able to explain well the amount of changes and variable variance of the physical symptoms of the employees of the Ministry of Health. In other words, the investigated regression model is a good model and is able to explain changes in the dependent variable based on the relevant independent variable.

### Table No. 18: The results of variance analysis of hypothesis No. 3 variables

Sum of Squares Model Degree of Freedom Mean Squares F Sig.  
1 regression 396/419 1 396/416 0.33/805 000/0  
Remaining 481/2896 247 727/11  
The total sum is 248/900 3292

### Table No. 20 shows the influence of each variable in the model as well as the correlation between them.

In the first part of the table, the regression effect coefficient of the amount of collective panic resulting from the social crisis of Covid-19 on physical symptoms is shown. Meanwhile, the beta coefficient represents the standardized regression effect coefficient of this independent variable on the dependent variable of the research. As can be seen, collective panic resulting from the social crisis of Covid-19 has shown a significant inverse effect (0.347) on physical symptoms. Thus, for an increase of one standard deviation in the collective fear variable resulting from the social crisis of Covid-19, the amount of physical symptoms in a person will decrease by 0.347 standard deviations. The amount of zero-order correlation, discriminative/partial correlation, and semi-discriminative/semi-discriminative correlation in the second part of the table were all equal to this value.

### Table number 19: Correlation rate of hypothesis number 3 variables

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) 12/215 0.919/0 13/285 0.000  
Fear of Corona 0.279 0.048 0.347.0 814.5 000.0 347.0 0.347.0 347.0

Hypothesis No. 4: The amount of collective panic resulting from the social crisis of Covid-19 is effective on the anxiety and sleep disorders of the employees of the Ministry of Health.

As can be seen in Table No. 21, the value obtained for the multiple correlation coefficient between the independent and dependent variable was equal to 0.365 and for the corresponding determination coefficient was equal to 0.133. Also, the value of the adjusted coefficient is equal to 0.130, which shows that the independent variable of the level of collective panic resulting from the social crisis of Covid-19, was able to explain 13% of the changes in the dependent variable of anxiety and sleep disorder, and the rest of these changes (87 percentage), is influenced by variables outside the model. The value of the standard error of estimation is equal to 4.282.

### Table No. 31: Summary of model fit of hypothesis No. 4

Multiple correlation coefficient model, coefficient of determination, adjusted coefficient of determination, standard error of estimation  
1 365.0 133.0 130.0 4.282

The results of the variance analysis related to the fourth hypothesis are presented in Table No. 22. In the third column, the sum of squares and in the fourth column, their degrees of freedom can be seen. 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 mean square for the regression is equal to 697.470 and for the residual is equal to 18.338.

## He Study of Mass Panic Resulting from the Social Crisis of Covid-19 and its Effect on the Public Health 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)

Because the F value obtained (38.035) at the error level is smaller than the amount of anxiety and sleep disorder in a person will decrease by 0.365 standard deviation. The amount of zero-order correlation, discriminative/partial correlation, and semi-discriminative/semi-discriminative correlation in the second part of the table were all equal to this value. Table number 22: Correlation rate of hypothesis number 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. 24, 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. 23: 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. 25. 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 investigated regression model is a suitable model and is well able to explain the changes of the dependent variable based on the mentioned independent variable.

### Table No. 24: 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. 25: 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

Hypothesis No. 6: The amount of collective panic resulting from the social crisis of Covid-19 is effective on the depression of the Ministry of Health employees.

As can be seen in Table No. 27, the values obtained for the multiple correlation coefficient between variables.

### Table No. 27: Results of variance analysis of the variables of hypothesis No. 6 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. 31 shows the influence of each variable in the model as well as the correlation between them. The beta coefficient in the



## He Study of Mass Panic Resulting from the Social Crisis of Covid-19 and its Effect on the Public Health 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)

first part of the table shows the standardized regression effect coefficient of mass panic resulting from the social crisis of Covid-19 on depression. It is clear that collective panic resulting from the social crisis of Covid-19 has shown a significant inverse effect (0.194) on depression. In this way, for an increase of one standard deviation in the collective fear variable resulting from the social crisis of Covid-19, the level of depression in a person will decrease by 0.194 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. 28: Correlation 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

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 impact of mass panic on public health and the job performance of the Ministry of Health employees during the Covid-19 pandemic. The findings of this study showed that collective panic is effective on the general health component and sub-components of physical symptoms, anxiety and sleep disorder, depression and 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 demographic variable of height affects people's general health; Also, the level of diploma and post-diploma education has a direct effect and mental illnesses have an inverse effect on people's job performance.

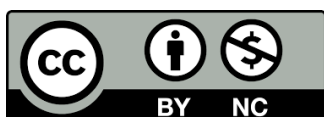
Considering the conditions of this study and the critical situation due to the pandemic, it is suggested that similar studies be conducted in different occupational groups as well as in the general population. Also, considering the conditions of fear and anxiety and psychological disorders due to illness 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 communication Panic caused by Corona and social function as a sub-component of general health index in GHQ questionnaire is very limited and rare. Therefore, it is recommended to pay more attention to this component of the public health components in future studies. Due to the fact that covid-19 is a common disease in the last year and the limited number of questionnaires available in the field of measuring fear caused by covid-19, in this study, the fear of corona questionnaire that includes.. Perhaps it is better to use questionnaires that are designed and validated for this purpose in future studies and compare their results with each other. 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 along with other used variables in future studies.

### REFERENCES

- 1) Azizi, S., M. Rashidi and A. Nilipour Tabatabai (2018). "Investigating the relationship between human capital development and crisis management (case study: the country's tax affairs organization)." *Social capital management*, 6(1): 148 127.
- 2) Zoghi, L., B. Ajil Chi, A. Yousefi Rad and A. A. Regular farmer (2019). ". The relationship between the understanding of the disease and obsessive beliefs with the mediation of public health in patients referred for the diagnosis of Corona." *Educational Psychology Quarterly* 16(55): 215 228.
- 3) Tabibzadeh, A. and d. Behzad (2019). Prophet Azam Hospital Bandar Abbas Covid 19, measuring the state of general mental health, the level of resilience and spiritual intelligence in the medical staff facing patients. Ph.D., Hormozgan University of Medical Sciences.
- 4) Tahmasabi, M. (2019, 01/18/2019). "Coronavirus Pandemic Crisis and Panic Epidemic." from Koen, B. (1386). *Collective behavior, foundations of sociology*, page 402 379.
- 5) Asmundson, G. J. G. and S. Taylor (2020). "Coronaphobia: Fear and the 2019-nCoV outbreak." *J Anxiety Disord* 70: 102196.
- 6) Aubrey, A. (2020). Poll: Most Americans say U.S. "doing enough" to prevent coronavirus

## He Study of Mass Panic Resulting from the Social Crisis of Covid-19 and its Effect on the Public Health 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)

- 7) Dubey, S., P. Biswas, R. Ghosh, S. Chatterjee, M. J. Dubey, S. Chatterjee, D. Lahiri and C. J. Lavie (2020). "Psychosocial impact of COVID-19." *Diabetes Metab Syndr* 14(5): 779-788.
- 8) Duncan, L. A., M. Schaller and J. H. Park (2009). "Perceived vulnerability to disease: Development and validation of a 15-item self-report instrument." *Personality and Individual Differences* 47(6): 541-546.
- 9) Farmer, b. (2020). "The Covid-19 mental health crisis: expect depression, anxiety and stress disorders, researchers warn." The outbreak's first wave in China resulted in a high number of mental health issues, report finds, 2020, from [https://www.telegraph.co.uk/global-health/science-and-disease/covid-19-mental-health-crisis-expect-depression-anxiety-stress./](https://www.telegraph.co.uk/global-health/science-and-disease/covid-19-mental-health-crisis-expect-depression-anxiety-stress/)
- 10) Gerhold, L. (2020). "COVID-19: Risk perception and Coping strategies".
- 11) Goldberg, D. and P. Williams (2000). "General health questionnaire (GHQ)." Swindon, Wiltshire, UK: nferNelson.
- 12) Karimi johani, R., F. Karimi Johani, A. Mahmoudzadeh Miandoab, Ahmadi Nasab, Y., and Teymourizadeh, N., (2021). "The impacts of Covid-19 disease on the general health of infected people." *Nursing development in health* 11(2): 1-8.
- 13) karimi johani, R., H. Taghilou, F. karimi johani, Z. Jafarzadeh Gharajag and L. babapour azam (2020). "Investigating the Relationship between Burnout and Job Performance in the Corona Epidemic from the Perspective of Nurses.33-27 :(9)4
- 14) Karimi, Z., Z. Fereidouni, M. Behnammoghadam, N. Alimohammadi, A. Mousavizadeh, T. Salehi, M. Mirzaee and S. Mirzaee (2020). "The Lived Experience of Nurses Caring for Patients with COVID-19 in Iran: A Phenomenological Study." *Risk Manag Healthc Policy* 13: 1271-1278.
- 15) Kumar, P., N. Kumar, P. Aggarwal and J. A.L. Yeap (2021). "Working in lockdown: the relationship between COVID-19 induced work stressors, job performance, distress, and life satisfaction." *Current Psychology*.
- 16) Lee, T.-C., M. Y.-P. Peng, L. Wang, H.-K. Hung and D. Jong (2021). "Factors Influencing Employees' Subjective Wellbeing and Job Performance During the COVID-19 Global Pandemic: The Perspective of Social Cognitive Career Theory." *Front. Psychol* Mar 3(12): 455.
- 17) Mahase, E. (2020). "Covid-19: hoarding and misuse of protective gear is jeopardising the
- 18) Negarestani, M., V. Rashedi, M. Mohamadzadeh and V. Borhaninejad (2021). "Mental Health of Older Adults in the COVID-19 Pandemic: The role of media exposure. ." *Salmand, Iranian Journal of Ageing* 16(1): 5-5.



There is an Open Access article, distributed under the term of the Creative Commons Attribution – Non Commercial 4.0 International (CC BY-NC 4.0) (<https://creativecommons.org/licenses/by-nc/4.0/>), which permits remixing, adapting and building upon the work for non-commercial use, provided the original work is properly cited.