# The Reality Of Occupational Health And Safety From The View Point Of Health Workers Sector In Light Of Covid 19

## Benmoussa Abdelouahab<sup>1</sup>, Boufera Mokhtar<sup>2</sup>

<sup>1</sup>Faculty of Humanities and Social Sciences. University of El Oued, Algeria.

Received: 16/09/2023; Accepted: 03/01/2024: Published: 27/01/2024

## **Abstract:**

The following study aims to identify the reality of occupational health and safety from the point of view of health sector workers in light of Covid 19, as well as to identify the differences according to the variables of gender and service. The study took place at the hospital of Ghriss in the state of Mascara. Data was processed using the Statistical Package for Social Sciences (SPSS), and the study revealed the following results:

- The reality of occupational health and safety from the point of view of health sector workers in light of COVID-19 is high.
- According to the gender variable, there are no differences in the reality of occupational health and safety from the point of view of health sector workers under Covid 19.
- Depending on the variable of service and in favor of the Service of Medical Emergencies, the Laboratory of Analysis and the service of Covid 19, there are differences in the reality of occupational health and safety from the point of view of health sector workers under Covid 19.

**Keywords:** health, occupational safety, health sector, COVID-19.

## 1.Introduction

Today, most countries are racing against time as a result of what developments in their world have imposed on them. Modern technologies have facilitated life, and this has become inevitable because of the benefits it provides and the needs it meets. On the other hand, it created a kind of chasm in some other fields and had a negative impact threatening its security and stability. Therefore, it became imperative for these countries to confront the knowledge and information revolution for the sake of evolution and development.

Various industrial and service organizations had a share of this knowledge and information revolution through the use of modern technology means and techniques. The success or failure of any organization is measured by the extent to which it adopts and uses these means and techniques, which is a positive thing. However, some organizations

have neglected the human element, which is a basic force and as its main nerve in the performance of its various tasks. If the workforce is neglected at the expense of attention to technical matters, this will affect the performance of organizations, whether industrial and service, and even the workforce itself.

Organizations, whether in developed or developing countries, have become interested in human capital by providing material and moral conditions, monitoring the physical environment and working conditions, and monitoring the means of prevention and occupational safety. From this standpoint, it has become imperative for them to follow policies based on practical scientific foundations in order to take care of the occupational health and safety of human cadres. The policy of concern for occupational health and safety is a priority of global policies that have been applied in many developed countries through the enactment of

<sup>&</sup>lt;sup>2</sup>Faculty of Humanities and Social Sciences. University of Mascara, Algeria.

several laws and legislations.In 1884, Germany issued the first legal system to ensure the protection of individuals against occupational hazards. In France, in 1889, the first international conference on industrial accidents was held in Paris, where one of its recommendations was to work on the need to create a specialized international body to supervise the study of international expertise in the field of industrial safety. In America, in 1970,the Occupational Safety and Health Act was passed in the "Congress" to ensure healthy and safe working conditions(Mechaali, 2011:91). In Britain, the Royal College of Physicians in London in 1978 established a service to teach occupational medicine in accordance with international standards in order to prepare trained and specialized cadres to supervise occupational health affairs in factories and institutions. In 1981, the Occupational Safety and Health Agreement was signed under No. 155 and aimed at the necessity of preventing accidents and health injuries resulting from work and reducing risks associated with the work environment (Saeed, 2015:1). As for the Arab world, during the convening of the Arab Labor Conference in its ninth session in 1981, it approved the need to improve the conditions of the work environment. Locally, Algeria was among the first countries that approved several reforms and adopted them as part of its policy to protect individuals in the work environment by ratifying some international conventions. In 1974,a decree was issued under No.74-255 that included the establishment of health and safety prevention committees at the level of production establishments. The Basic Law of 1978 also included that the employing establishment must provide workers with the conditions of health and safety protection specified by the legislation in force (Mechaali, 2011:95). It also established specialized international bodies working to protect workers and take care of their health and occupational safety, such as the International Labor Organization, which was established in 1919, as well as the Organization for Occupational Safety and Health in 1934. Locally, several national bodies have been established to ensure the implementation of laws and legislation,

such as the Labor Inspectorate, and the National Institute for Health and Safety Preservation. This was all done in order to ensure the health and safety of workers within the organisations. The health sector is considered one of the sensitive sectors that requires attention to the safety and health of its workers as a result of the occupational risks that they are exposed to, especially at the time of the emergence of epidemics and infectious diseases such as the Covid 19 pandemic.

#### The study problematic

The health sector is one of the strategic sectors for any country in the world, as it is the main nerve in maintaining the safety and health of its societies. Therefore, countries are paying great attention to it by keeping pace with developments in the field of occupational health and safety, according to international scientific foundations. Hence, many countries have persisted in reforming their health system to achieve its major goals and objectives. It worked on investing in the human element by following procedures and developing training programs to train it and enable it to perform its tasks in light of contemporary technological developments. The success of health sector employees in performing their duties depends on the success of their training and academic, psychological and professional training. This can only be achieved with the quality of training, and through concerted efforts and investment in human resources. The Ministry has attached importance to the training of practitioners in the health sector at the level of its affiliated training institutions. Despite all this, the exceptional circumstances that the world is witnessing constitute a barrier to the development of the occupational health and safety sector, especially at the time of the emergence of unknown diseases and epidemics that threaten public health and the health of workers in the health sector. Indeed, the emergence of Covid 19 in late 2019 is the best evidence of the real nightmare experienced by health sector workers.

Most health services across the world have reestablished their policy towards the occupational health and safety of their employees as a result of

what was imposed by the Covid 19 pandemic due to the increase in the number of injuries and the rapid spread of the epidemic. This group has become living in a terrible obsession and panic due to the high number of Covid infections and the high number of deaths, as well as the loss of some professional colleagues due to the unsub. This has increased fatigue, exhaustion, fear, anxiety and negative thinking, in addition to the deterioration of working conditions as a result of lack of equipment, means, medicines, effective vaccine and lack of detection test. As the need, under these circumstances, for security and safety among health sector workers has increased more than it was in normal circumstances, and this is considered one of the most important human needs, according to Maslow. From this perspective, some hospitals have been applying health protocols to workers, each according to the degree of exposure to those infected with Covid and the extent of the spread of the number of infections in that geographical area, while some health services temporarily been interrupted, such surgeries, including critical emergency. The application of all these precautionary measures and occupational health and safety rules depends on the extent to which employees are committed to them to maintain their safety. From this point of view, the current study came to shed light on the reality of occupational health and safety from the point of view of health sector workers in light of Covid 19, and accordingly the researcher tries to answer the following question:

- -What is the reality of occupational health and safety from the point of view of health sector workers in light of Covid 19?
- Are there differences in the reality of occupational health and safety from the point of view of health sector workers in light of Covid 19 according to the gender variable?
- Are there differences in the reality of occupational health and safety from the point of view of health sector workers in light of Covid 19, according to the variable of working time?
- Are there differences in the reality of occupational health and safety from the point of view of health

sector workers in light of Covid 19 according to the variable of service?

#### **Study Hypotheses:**

- -The occupational health and safety's reality is acceptable from the point of view of health sector workers in light of Covid 19.
- -There are no differences in the reality of occupational health and safety from the point of view of health sector workers under Covid 19, according to the gender variable.
- -There are differences in the reality of occupational health and safety from the point of view of health sector workers in light of Covid 19, according to the variable of service.

## **Study Objectives:**

- The reality of occupational health and safety from the point of view of health sector workers in light of Covid 19.
- The reality of occupational health and safety from the point of view of health sector workers in light of Covid 19 according to the gender variable.
- The differences in the reality of occupational health and safety from the point of view of health sector workers in light of Covid 19, according to the variable of service.

## **Study significance:**

This study derives its importance from the nature of the topic it deals with, in addition to the questions it raises, and this is summarized as follows:

- The reality of occupational health and safety is a practical topic, and every study that sheds light on it will give it more realistic analysis, especially in light of the conditions experienced by Algeria and the world.
- Reinforcing the field of psychological and educational studies and research with a recent study dealing with occupational health and safety in light of Covid 19 in Algerian society, with the aim of developing a counseling and awareness program and finding appropriate mechanisms to preserve human resources.
- Reaching results that could open the way for more studies in the future.

- Attempting to come up with scientific results through the applied study and putting forward proposals to contribute to enriching practical solutions to occupational health and safety in light of the outbreak of epidemic diseases.

## Study terminology:

## - Occupational Health and Safety:

It is the provision of appropriate conditions for work in accordance with a set of rules and procedures recognized in the field of work or according to the specificity of each profession or job in order to reach the goal of protecting human capital. As for the procedural definition, it is the degree that the respondent obtains from the sample members through the scale applied in this study.

## -COVID-19:

It is defined by the World Health Organization(2020) as a large family of viruses that cause illnesses ranging from the common cold to more severe diseases, such as the Middle East Respiratory Syndrome and Severe Acute Respiratory Syndrome (SARS).

The emerging corona virus is a new strain that has not been previously identified in humans (Al-Shdefait,2020:191).

Al-Shdefait (2020:192) means acute pneumonia that affects the respiratory system and is accompanied by a rapidly contagious fever, and its symptoms may become severe and lead to death.

#### 2. Theoretical framework:

#### 2.1 Occupational Health and Safety Concept:

The Joint Occupational Health Committee of the International Labor Organization and the World Health Organization(1950) defined occupational health and safety as the science that aims to improve the health of workers in all professions to the highest levels of physical, psychological and social well-being. Thus, it is the process of preventing health deviations that may affect workers, as well as protecting them from all health risks in the

workplace, and placing the worker and keeping them environment suitable for their in a work physiological psychological potential(Al and Sammak,2012:82).Al-Hendawy (1994)defines occupational safety and health as the provision of a safe working conditions necessary to maintain the three factors of production. These factors are represented in: humans, machine, and the material, and surrounding it with a fence of security within the framework of spreading an atmosphere of safety and in the work environment (Altranquility Mughni,2006: 15).

Akili(2003) considers occupational health and safety as a set of principles and rules according to which human resources are protected, regardless of their types and the nature of their work, from the dangers of the professions they practice, whether physical, physiological or psychological. This is through the development, implementation and follow-up of an appropriate security and protection program through which the number of accidents and injuries that workers are exposed to in the workplace can be reduced (Bennour and Mansour, 2021:78).

As for Youssef and others(2009), they see that it is the practice of a number of activities with the aim of protecting the elements of production, especially the human element in the organization from exposure to accidents during work. This is done by creating the appropriate physical and psychological conditions for workers to perform their work with high productivity (Al-Skafi and Al-Hashimi, 2015:335).

Whereas, Alamiri (2013:150)defines occupational safety and health as all activities and events carried out by the organization in order to preserve the health and safety of workers and protect them from accidents and work injuries. They are those activities that make them more able to carry out the tasks and responsibilities assigned to them efficiently and effectively and avoid work stoppage losses and the costs of compensation for the caused damages.

Basil(2014:33) defines occupational safety and health as a set of procedures that organizations follow and through which different working conditions are taken into account. It is also paying

attention to those procedures that threaten the physical and psychological health of working individuals by falling into the dangers that cause accidents, injuries and diseases, and working on treating and avoiding them. The same applies to machines, equipment, and materials and how to deal with them in a proper manner to preserve them from damage, as this has a significant impact on the health of workers and the efficiency of the production process.

Sharara(2016:13)believes that occupational safety and health is a set of steps and procedures that are taken to achieve a safe work environment free from all dangers and causes of accidents. An environment in which occupational diseases, fatigue, damage and loss of money are absent, while maintaining the human element completely safe from all dangers.

Khalaf and Al Kaabi(2019:174) considered it a set of measures and measures taken to achieve a safe environment free of risks and accident causes to preserve production factors, especially the human element.

Ezzat(2020:14)considered it a set of means and procedures used by the organization to reduce work risks and accidents by creating an appropriate work environment that meets the requirements of workers and increases the productivity and efficiency of their work through a continuous cycle.

## 2.2 Occupational Safety and Health Objectives:

Occupational health and safety aims to achieve the following:

- Protecting the human element in the work environment.
- Protecting and developing skills, expertise and specializations.
- Enhancing the technical level of employees through continuous training.
- Determining the performance methods and managing them with the least risks.
- Protecting the human elements as a binding objective for all direct and indirect workers.
- Reducing the cost of production while increasing production and trying to reduce the difference in raw materials as much as possible.

- Giving confidence to the economic establishments and encouraging them continuously (Othman, 2019:51).

Sharara (2016:16) sees the importance of providing occupational health and safety due to achieving the following goals:

- Occupational safety and health contributes to reducing production costs. This is the result of reducing the work accidents and injuries rates, and also of reducing absence periods and work stoppage, which results from the lack of a sound physical work environment.
- Occupational safety and health contribute to reducing production costs through reducing materials waste and through the use of advanced mechanical systems. Having these systems and materials contribute to reducing production interruption periods, and not disrupting it due to sudden repair and maintenance systems.
- Having an effective system for occupational safety and health contributes to attracting skilled workers and distinguished competencies.
- Employment stability at work, i.e. an increase in the degree of workers' satisfaction with their work and their close connection with the machine and the environment in which they work, which leads to a reduction in work turnover rates.
- Distinguished occupational health and safety achieves high production efficiency due to the highquality and moderate-cost production.
- The occupational safety and health strategy achieves direct goals for workers as it protects them from diseases and impairments and preserves their physical and psychological potential, as well as achieving great material gains for them resulting from increased production.
- The occupational safety and health strategy contributes, along with other organizational strategies, to increasing the competitiveness of the organization in the local environment and employees.

#### **2.3** Occupational Health and Safety Measures:

- Following preventive measures while performing tasks, after finishing and before leaving the hospital.

- Attending a periodic examination, such as taking the temperature during admission and upon leaving the hospital.
- Using special tools during the process of examination and medical examinations, and making sure to not use them by several people.
- Wearing gloves, special clothing and masks.
- Disposing of used medical waste after work.
- The necessity of compulsory isolation in the event that one of the health workers is confirmed to be infected.
- The necessity of undergoing quarantine for suspected cases of hospital workers.
- The need to respect physical distance and avoid gatherings in the workplace.
- The need to identify and adhere to the use of means with Covid-19 patients,in particular.

#### 3. Previous Studies:

During normal conditions, several studies have been conducted on the reality of occupational health and safety among workers in the health sector. However, our current study will be limited to the reality of occupational health and safety and the point of view of health sector workers in light of Covid 19. Due to the lack of studies related to the current variable, the researcher is forced to use the studies closest to the current topic, the most important of which are:

#### The study of Askarian and others (2006:768)

It aims to know personal hygiene and safety among employees of government hospitals in the Iranian city of Shiraz and to identify practices related to personal hygiene among health workers. This is in addition to determining the extent to which they adhere to the recommended instructions in this regard in all 30 hospitals affiliated with Shiraz University of Medical Sciences in Iran This included 2,134 doctors, 8,986 nurses and 1,236 hospital cleaners. The results of the study show that doctors and nurses are less committed to personal hygiene practices compared to sanitation workers. Also, the level of adherence to preventive measures was better in teaching hospitals compared to other hospitals.

## Al-Khatib study (2006)

It aims to identify the reality of occupational safety of sanitation workers in Palestinian hospitals, and its relationship to the reality of dealing with medical waste in these hospitals. The researcher used the questionnaire and observation methods to collect data from the study sample of 45 sanitation workers in hospitals in one of the governorates. The results show that the sanitation workers' level of occupational safety is below the required level, as most of them do not have personal protective equipment, and that 40% of the study sample were exposed to occupational hazards (Basil, 2014:76).

Cudjoe study(2011)The study aims to identify the impact of occupational safety and health practices on the job performance of workers in a hospital in Ghana. The study population consists of all workers in the same hospital of various positions: doctors, administrators, technicians, and nurses. The study sample was selected by 80 individuals, and the questionnaire and interview were used as study tools. The results show that occupational safety and health practices in the surveyed hospital are insufficient. Also, the commitment of the hospital staff in question to the rules of occupational safety and health was weak, and there was a positive impact of occupational safety and health practices on job performance (Basil, 2014:81).

## **Alqam study (2013:8)**

It aims to assess exposure to occupational health and safety risks for medical laboratory workers in the Palestinian Ministry of Health governmental hospitals in the West Bank. The sample consists of 164 workers. The results of the study show that the participants have a very high degree of knowledge about occupational risks. It also shows that the degree of performance information and job satisfaction is medium and that laboratory workers use safety methods and measures. It also found that there are statistically significant differences in the occupational awareness of occupational risks and safety measures and information on performance and job satisfaction according to the gender variable and

in favor of males. It also found that there are no statistically significant differences in the occupational awareness of occupational risks, safety measures, and information on performance and job satisfaction according to the variable years of experience.

## **Basil's study(2014:150)**

It aims to identify the extent to which occupational safety and health procedures are applied, and to test the relationship between the learning organization and the promotion of occupational safety and health procedures. The sample consists of 152 technicians working in the medical imaging services of the governmental general hospitals in the Gaza Strip.Among the results, the degree of the occupational safety and health procedures application was moderate, and the level of the occupational safety and health procedures application in medical imaging services from the point of view of technicians working in them was medium, while the awareness and understanding of workers of occupational safety and health procedures was high. It also found that there were no statistically significant differences in the level of the health occupational safety and procedures application due to the variable of gender, years of experience, educational qualification, workplace. This is in contrast to the age variable, which showed differences in favor of less than 30 years and more than 41 years.

#### Zaiter and Gasmi's study (2019:623)

It aims to identify the occupational safety and security systems for workers in the health institution and their contribution to improving the quality of the health service from the point of view of service providers. The sample consists of 28 medical and administrative staff from the public hospital institution in Bouzidi Lakhdar in Bordj Bou Arreridj. The questionnaire was relied on in collecting data, and one of the most important findings is that the level of adoption of occupational safety and security systems for the sample members is acceptable. Moreover, it also found an inverse correlation between occupational security and safety systems

and the level of quality from the point of view of service providers.

**Djoudi's study (2020:205)**It aims to identify the reality of occupational health and safety and work accidents in the hospital institution in Reggane, and the prevention programs used in the institution. The sample consisted of 40 individuals who were selected from three services, the Service of Emergency Medicine, the Service of Obstetrics and Gynecology, and the Service of Maternity. The questionnaire and the interview were used as data collection tools. Among the findings, most of the sample members believe that the means of occupational safety and prevention are available in the workplace by 55%, while 45% see the opposite and acknowledge the lack of safety means at work. Furthermore. the sample members acknowledged their respect for the occupational safety instructions in the institution by 90%, while 10% reported that they did not respect the occupational health and safety instructions while doing their work. This indicates the extent to which workers are aware of the need to maintain their safety and security by spreading a culture of occupational health and safety among workers. The results also showed that the workers are satisfied with the efforts made by the institution for their health safety.

#### 4. Field study procedures

#### 4.1 Study approach

The current study relies on the descriptive approach, which aims to know the reality of occupational health and safety from the point of view of health sector workers in light of COVID-19.

## 4.2 Study population and sample:

The study population consists of all 457 employees of the hospital in Ghriss. The final study sample was randomly selected from 94 male and female workers,ie an average of 20.56% from the original population. The following table shows the distribution of the study sample according to qualitative and quantitative specifications.

Variables	Specification	Repetition	Percentage	Total
Gender	Male	59	43.79%	94
Gender	Female	35	56.21%	94
Service	Laboratory	15	15.95%	
	Maternity	22	23.41%	
	Urgency	15	15.95%	
	Pediatrics	11	11.71%	94
	Hemodialysis	9	9.58%	
	Corona	9	9.58%	
	General Surgery	13	13.82%	

Table(01): shows the distribution of the sample according to demographic variables

## 4.3Description of the study tool:

After reviewing the most important standards that were used to identify the reality of occupational health and safety in previous studies, the researcher considered that it is more appropriate to use the Salem Scale (2009) in studying the reality of occupational health and safety in industrial institutions of Palestine. Two dimensions of the scale have been adopted because they are consistent with the nature of the current study. They are the dimension of workers' commitment to applying occupational health and safety rules, and it consists of eleven (11) items, and the dimension of workers' satisfaction with the application of occupational health and safety rules and procedures, and it consists

of ten (10) items. The response scores are on a fivechoice scale (strongly agree, agree, neutral, oppose, strongly disagree) and the weights are as follows (5,4,3,2,1).

## 4.4 Psychometric properties of the scale:

## A-The validity of the scale:

The researcher verified the validity of the scale by using the internal consistency validity method by using the Pearson correlation coefficient to find the internal consistency by calculating the degree of correlation coefficients for each dimension and the total score of the scale.

T-1-1-(02)1	41 1 . 42	CC° - • 4 - 1 4	1- 12	
Table(07), shows	the correlation	coefficients between	each dimension a	ind the total score

Dimensions	Correlation coefficient
Employees' commitment to applying occupational health and safety rules	0,699**
The extent of employee satisfaction with the application of occupational	0,938**
health and safety rules and procedures	

<sup>\*\*</sup>Significant at the α 0.01 significance level

From Table No.(02), it is clear that the correlation coefficients between the total score and the dimensions of the scale were statistically significant at the significance level of 0.01, which is high and significant, as it ranged between 0.699 and 0.938.

**B- Scale reliability:** 

The Cronbach's Alpha formula was used, with a stability coefficient of 0.875. From the above, it is clear that the scale has high psychometric properties of validity and reliability, and this justifies using it in the current study.

## **4.5 Presentation and analysis of results:**

## The first hypothesis

The study shows that the reality of occupational health and safety is positive from the point of view of health sector workers, and to verify its validity, a single-sample T-test was used. The table shows this:

Table(03): shows the positive reality of occupational health and safety from the health sector workers' point of view

Dimensions N		J moon	St.d	Hypothetical	T-Value	df	Significance
Difficusions	1	mean	Si.u	mean		uı	level
First	94	42.15	4.448	33	19.942	93	Statistically
riist	) <del>14</del>	42.13	4.440	33	19.344	93	significant
Second	94 3	32.90	9.317	30 3.022	2 022	93	Statistically
Second	94	32.90	9.317	30	3.022	93	significant
Overall	94	75.05	11.779	63	9.921	02	Statistically
scale	94   /3.03	11.//9	03	9.921	93	significant	

From Table No.(03) it is clear that the arithmetic mean value of the employees' commitment to applying occupational health and safety rules is 42.15 and a standard deviation of 4,448. When comparing the arithmetic mean with the hypothetical mean of the dimension estimated at 33, the arithmetic mean is greater than the hypothetical mean of the scale. By applying the t-test to one sample, it was found to be statistically significant. This indicates that the degree of employees commitment to the application of occupational health and safety rules is great. As for the dimension of workers' satisfaction with the application of occupational health and safety rules and procedures, its mean was 32.90 with a standard deviation of 9,317.By comparing the hypothetical mean of this dimension estimated at 30, it is seen that it is less than the arithmetic mean, but the difference is slight. This indicates that employee satisfaction with the application of occupational health and safety rules and procedures is acceptable, while the reality of occupational health and safety is great from the point of view of health sector workers. This is shown by comparing the arithmetic mean of 75.05 with the hypothetical average of the total scale and the statistical function by applying a one-sample t-test. The previous results can be interpreted according to each dimension. The great commitment of employees to apply the rules of occupational health and safety is due to several reasons and factors. For instance, the high number of

infections with the Covid-19 virus and the high number of deaths among their colleagues in the sector of different ranks and types. 168 doctors from various medical specialties and 120 professional workers were lost, and 9,146 were infected with the Corona virus, and these are terrifying numbers. Furthermore, the working conditions imposed by the virus for several months were exceptional, and the psychological pressures that health sector employees were exposed to were great. This made them realize the danger surrounding them, which prompted them to work as a team to face difficult circumstances and adapt to the new situation to preserve their lives, the lives of their colleagues and even their families. This made everyone ready to confront the silent killer by adhering to the application of occupational health and safety rules imposed in light of Covid 19. As for the extent of workers' satisfaction with the application of occupational health and safety rules and procedures, it was at an acceptable level, despite the measures taken by the willful ministry to preserve the health and safety of health sector workers and limit the spread of the virus. This is by providing the necessary means and devices while performing the tasks, as well as taking some precautionary measures and strict restrictions related to the workflow. Despite all the efforts made, the sample members believe that it is still insufficient in light of the emergency conditions witnessed by hospitals and the successive spread of the epidemic.

Haberish study (2020) found that 75% said that the institution does not provide them with all the necessary capabilities to avoid the risks of the Corona virus, compared to 25% who think otherwise. However, the Yemeni Hospital Administration does not provide special allowances for prevention and masks and does not require workers to wear gloves and protective head coverings, nor has it taken all precautionary and preventive measures to secure

medical staff and workers from the danger of the Corona virus.

## The second hypothesis:

The hypothesis states that there are differences in the reality of occupational health and safety from the point of view of health sector workers under Covid 19, according to the gender variable. To verify its validity, a t-test was calculated for two independent samples. The following table shows this:

Table(04):shows the differences in the reality of occupational health and safety according to the gender variable

Indicators variable	n	mean	St.d	T- Value	Degree of freedom	Significance level
Female	59	73.78	10.528	-1.367	92	Statistically
Male	35	77.20	13.523	-1.30/	92	insignificant

From Table No.(04), it is clear that the calculated "T" value amounted to -1,367, which is not statistically significant. This means that there are no differences in the reality of occupational health and safety from the point of view of health sector workers under Covid 19, according to the gender variable. The Covid-19 epidemic has affected all segments of society, regardless of their sects and gender. Thus, health sector workers had a share of the Covid-19 pandemic, whether doctors, nurses, and even professional workers, regardless of their gender, which made the reality of occupational health and safety a priority to preserve their health. This is what unites them as a team to preserve their lives, the lives of their families and even their colleagues despite the dangers of a silent killer. The latter, caused panic and terror across all countries of the world, and in the first

place, among the segment that was called the White Army, which was on the front lines to confront the epidemic. The results of our study contrast with the study of Quttaineh et al. (2020), which found that there are no differences in workers' estimates of the extent of the ability and willingness of hospitals to insure them from the danger of the Corona virus due to the gender variable.

# The third hypothesis:

The hypothesis states that there are differences in the reality of occupational health and safety from the point of view of health sector workers in light of Covid 19, according to the variable of service. To verify its validity, analysis of variance was used and the following table illustrates this:

Source of variation	Sum of squares	Degree of freedom	variance (Mean square)	F-ratio	Significance level
Between groups	3005,777	6	500,963	4,404	Statistically significant
Within groups	9896,957	87	113,758	4,404	
Total summation	12902,734	93			

From the previous table, it is clear that there are statistically significant differences in the reality of occupational health and safety from the point of view of health sector workers under Covid 19,according to the variable of service. The value of "F" was estimated at 4044, which is a statistically significant. In order to find out these differences, the Scheffe dimensional test was used. Through it, it was concluded that the differences in occupational health and safety situations were in favor of workers in the Covid 19 service, the service of medical emergencies and the medical analysis laboratory.

Thus, it is clear that adherence to the reality of occupational health and safety varies from one service to another. Employers of the third service are more obligated to the rest of the other services, and this is because that this service deals the most with the infected or those around whom there are suspicions of being infected. This is due to the fact that the latter deal with the most infected or suspected cases. The Urgent Care Service is the first service that receives patients, so the supervisors of this service are at the height of readiness in terms of adhering to the rules of occupational health and safety. After that comes the laboratory service, in which medical analysis is carried out to determine whether the infection is present or not. In the end, the Covid 19 service is the last service that receives people infected with the virus and even those suspected of being infected for treatment. Therefore, the staff supervising this service is more committed to the rules of occupational health and safety in order to avoid infection or transmission of infection to their colleagues than the rest of the services.

#### **CONCLUSION**

Occupational health and safety is one of the important priorities to protect human resources in light of the epidemiological conditions that the world is witnessing. Health workers are the group that works on the front lines of the epidemic. Being aware of what awaits them and in order to preserve their lives and the lives of others, they work to follow the rules of occupational health and safety during the pandemic. This is confirmed by our current study, as it concluded that there are no differences between the

sector employees of both genders. However, differences were found in the level of occupational health and safety rules application depending on the nature of the service in which they work. The supervisors of the Department of Medical Emergencies, the Laboratory of Analysis and the Department of Covid 19 are more keen to implement the rules of occupational health and safety than the rest of the departments. From this standpoint, it is possible to promote occupational health and safety to preserve the invaluable human capital by coming up with the following suggestions:

- The necessity for health institutions to pay attention to occupational health and safety rules to preserve the human resource.
- Conducting periodic training and training courses by the custodian administration in the field of occupational health and safety, especially in light of health crises.
- -The necessity of having a strict adherence to the application of occupational health and safety rules in unusual and emergency circumstances.
- Providing the means of prevention and the material capabilities of work to maintain occupational health and safety.
- The necessity of being responsible and ethical, and complying with safety measures by health employers to maintain their health and safety from occupational hazards.

#### References

- -Alqam Ibrahim Saleem Thafer(2013)Occupational hazards among laboratory workers in Palestinian governmental hospitals in the West Bank,master thesis, Al-Quds University.
- 2. -Askarian M, Khalooee A,Nakhaee,N(2006)Personal hygiene and safety of governmental hospital staff in Shiraz, Islamic Republic of Iran, La Revue de Santé de la Méditerranée orientale, 12(6),768-774.
- Al Sammak E,Bashar (2012) The contribution of knowledge management processes to enhancing the role of occupational health and safety for employees, Journal of Future Research, Al-Hadba College, University of Iraq, 3(1), 65-112.

- 4. AlamiriAmer Abdullatif Kadhim(2013)The impact of occupational health and safety (OHS)management on workers' performance an analytical study of the sectors of the Iraqi Ministry of Industry and Minerals, Journal of Al-Ma'moon College, University of Iraq,(21),144-169,
- 5. Al-Mughni, Sakr Oumaima(2006)The reality of occupational safety and security measures used in the manufacturing sector facilities in the Gaza Strip, Master's thesis, Islamic University, Gaza.
- 6. Al-Shdefait Muneera Abd Al Kareem(2020)The reality of the distance education employment due to corona pandemic in the schools of the Mafraq Qasabah district from the point of view of its school principals,The Arab Journal for Scientific Publishing, the Center for Research and Development of Human Resources (Ramah) Jordan: (9),185-207.
- 7. Al-Skafi Laith Zuhair Abdul Amir, Al-Hashimi Yasser Hamid (2015), The practice of occupational safety management and its role in improving production efficiency, a field study in the Najaf oil refinery, Al-Ghari Journal of Economic and Administrative Sciences, Kufa University, 13(36), 330-352.
- 8. Atiyah Khalaf Batool,Al Kaabi Hamid Hassan Majed(2019)Evaluation of the occupational health and safety management system according to ISO 45001:2018 Application research in Baghdad Soft Drinks Company,Journal of Economic and Administrative Sciences, University of Baghdad, 25(113), 171-190.
- 9. Basil Khamis Mohamed (2014)The relationship of the learning organization with the promotion of occupational safety and health procedures in the medical imaging services of government hospitals in the Gaza Strip,Unpublished master's thesis, Faculty of Economics and Administrative Sciences, Al-Azhar University,Gaza.
- 10. Bennour, Youssef & Mansour Mostapha(2021)The relationship of human energy engineering (ergonomics) with occupational safety and health systems and its impact on improving the performance of workers

- in Algerian industrial establishments, Al-sirraj journal in education and community issues, Oued Souf University, 04(01), 71-90.
- 11. Djoudi Hamza(2020),Occupational health and safety in the Algerian institution, a field study at the hospital institution of Reggane,Afak Ilmia review, University Center Tamanrasset,12(3), 195-212.
- 12. -Ezzat Hussein,N(2020)Implementation of the occupational health and safety management system according to OHSAS18001:2007 specification on the laboratories of the Kirkuk Technical College, Journal of Tanmiat Al-Rafidain: 39 (125),9-42.
- 13. Othman Azzedine(2019) Occupational risk assessment and management, an ergonomic study by OSHA specifications, Sonatrach units for the transfer and transfer of gas in Arzew Oran, Unpublished PhD thesis, Faculty of Social Sciences, University of Oran "2".
- 14. Saeed Sarah Ahmed(2015) The effectiveness and impact of applying occupational safety and health procedures on the performance of workers in Khartoum Teaching Hospital, Unpublished master's thesis, Sudan University of science and Technology.
- 15. Salem Salameh(2009)The reality of occupational health and safety in industrial enterprises in Palestine,Al-Quds Open University Journal for Educational & Psychological Research & Studies:(16),141-184.
- 16. Sharara Abdullah Magdy(2016),Occupational safety and health and securing the work environment,Friedrich Ebert Foundatioin,Egypt.
- 17. Mechaali bilal(2001)The role of occupational safety programs in improving the performance of workers in Algerian SMES ,Unpublished master's thesis,Faculty of Economics and Management Sciences, Farhat Abbas University, Setif.
- 18. Zaiter Fateh, Gasmi Kamel (2019) The contribution of occupational safety and security systems to improving the quality of health service from the point of view of service providers: a case study of the public hospital

institution Bouzidi Lakhdar Bourj Bou Arreridj Al-Bashaer Economic Journal, Bashar University,5(1),608-624.