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Master of Science Thesis

DETERMINING THE PERCEIVED STRESS LEVEL OF INDIVIDUALS WITH COVID-19

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BY

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ACCEPTANCE AND APPROVAL

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ETHICS STATEMENT

The thesis entitled "**Determining the Perceived Stress Level of Individuals with COVID-19**" which was prepared and presented as a thesis, was written by myself and in accordance with the scientific, academic rules and ethical conduct. The idea/hypothesis of my thesis solely belongs to my supervisor and to me. The research pertaining to the thesis was conducted by myself and therefore, all of the used sentences and interpretations within the work belongs to me.

I declare the aforementioned issues to be correct.

Signature

Mohammed Abbas Abdulsada ABDULSADA

ABSTRACT

Determining the Perceived Stress Level of Individuals with COVID-19

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Master of Science in Nursing

Advisor: Assoc. Prof. Dr. İlknur GÖL

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Aim: To determine the individuals perceived stress level one month after they were infected with COVID-19.

Methods: The study done in Baghdad, Iraq, conducted a descriptive cross-sectional study. The study sample included only 225 patients out of all patients in the two hospitals by using non probability sampling.

Results: The average age of the participants is 33.19±9.98, 58.2% of them are male, 23.6% are smokers and 15.6% have a chronic disease. It was determined that 91.1% of the participants experienced covid in their family members, and 38.7% experienced death from covid in their families. 82.2% of the participants were vaccinated against covid. Participants' perceived stress scale total scores were 17.14±7.22. It has been determined that the perceived stress scale scores are higher in women and those who have died due to covid in their families ($p \leq 0.05$).

Conclusions: It is observed that participants who experienced death due to Covid had higher perceived stress scores than participants who did not experience death. Nurses play a very important role in the stress management of patients, especially during long-term hospitalizations. Therefore, nurses can collaborate with other members of the healthcare team to provide patients with more effective stress management strategies. The society should be informed about covid correctly and the safety profile of the covid 19 vaccine should be emphasized.

2023, 69 pages

Keywords: COVID-19, perceived stress, descriptive characteristics.

ÖZET

COVID-19 Geçiren Bireylerin Algılanan Stres Düzeyinin Belirlenmesi

Mohammed Abbas Abdulsada ABDULSADA
Hemşirelik, Yüksek Lisans
Tez Danışmanı: Doç. Dr. İlknur GÖL
Ocak 2023

Amaç: COVID-19 ile enfekte olan bireylerin algıladıkları stres düzeyinin belirlenmesi.
Yöntem: Araştırma kesitsel tipte tanımlayıcı bir çalışmadır. Irak'ın başkenti Bağdat'ta yürütülen çalışmanın örneklemini 225 birey oluşturmuştur.
Bulgular: Katılımcıların yaş ortalaması 33.19±9.98 olup, %58,2'si erkek, %23,6'sı sigara içmekte ve %15,6'sı en az bir kronik bir hastalığa sahiptir. Katılımcıların %91.1'inin birinci derece akrabalarında covid 19 öyküsü olduğu ve %38,7'sinin birinci derece akrabalarında covid 19 kaynaklı ölüm yaşandığı belirlenmiştir. Katılımcıların %82,2'si covid aşısı yaptırmıştır. Katılımcıların algılanan stres ölçeği toplam puanı 17,14±7,22'dir. Kadınlarda ve ailesinde covid 19 kaynaklı ölüm yaşananlarda algılanan stres ölçeği puanlarının daha yüksek olduğu belirlenmiştir ($p \leq 0.05$).
Sonuç: Covid nedeniyle ölüm yaşayan katılımcıların, ölüm yaşamayan katılımcılara göre algılanan stres puanlarının daha yüksek olduğu görülmektedir. Hemşireler hastaların stres yönetiminde çok önemli bir rol oynamaktadır. Bu nedenle, hastalara daha etkili stres yönetimi stratejileri sağlamak amacıyla sağlık ekibinin diğer üyeleriyle işbirliği yaparak toplumun Covid konusunda doğru bilgilendirilmesinin ve Covid-19 aşısının güvenlik profilinin vurgulanmasının sağlanmasında etkili olabilirler.

2023, 69 sayfa

Anahtar Kelimeler: COVID-19, algılanan stres, tanımlayıcı özellikler.

PREFACE AND ACKNOWLEDGEMENTS

- First of all, I thank God for the success in reaching this level.
- I would like to thank my supervisor, Assoc. Prof. Dr. İlknur GÖL for helping me and giving me valuable advice and guidance in completing this project.
- I dedicate this project to my deceased father and I hope that he sacrificed all his life for us.
- To my mother, my brothers, my sisters, my wife and my daughter.
- To my teachers who supported me in completing this project.
- I would like to thank all my friends for their patience and support.

Mohammed Abbas Abdulsada ABDULSADA

Çankırı-2023

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%	percent
F	Frequency
M	Mean
N	Number
P	The level of marginal significance within a statistical hypothesis test
SD	Standard deviation

LIST OF ABBREVIATIONS

UNDP	United Nations Development Program
WHO	World Health Organization
GHRP	Global Humanitarian Response Plan
ILO	International Labor Organization
ARTI	Acute Respiratory Infection
SARS	Severe Acute Respiratory Syndrome
MERS	Middle East Respiratory Syndrome
CCDC	China Center for Disease Contro
WMHC	Wuhan Municipal Health Commission
PHEIC	Public Health Emergency of International
FDA	Food and Drugs Administration
EMA	European Medicines Agency's
CHMP	Committee for Medicinal Products
NSAIDs	nonsteroidal anti-inflammatory drugs
ECMO	extracorporeal membrane oxygenation
PSS	Perceived Stress Scale
SPSS	Statistical Package for Social Sciences

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1. INTRODUCTION

Recent epidemics of a wide variety of infectious diseases have had a significant impact on the lives of millions of people. In addition to placing a strain on both our private and public medical systems, these diseases have put a strain on the resources of economists, scientists, and politicians, who have all had to deal with the resulting financial hardships, vaccine discoveries, and public expectations and fears. This year, right before China's biggest celebration, there was an outbreak of a contagious ailment. As a result, multiple cases of severe pneumonia with comparable symptoms suddenly appeared in Wuhan, China's largest city (Wu and McGoogan 2020).

The novel strain of coronavirus, which was later termed SARS-CoV-2 and referred to as COVID-19, was identified by genome sequencing techniques as the source of the disease. In addition to SARS-CoV (the severe acute respiratory syndrome virus) and MERS-CoV (the Middle East respiratory syndrome coronavirus), SARS-CoV-2 is a coronavirus with a high potential for human infection in the Middle East region. It is estimated that 485,39872 people worldwide have been infected with COVID-19, with 1232,791 people proven to have died from the disease. The medical community has been shaken by the outbreak of this disease, which has become a significant danger to the general population's health all over the world.Undoubtedly, new approaches are needed, such as intensive surveillance to keep the disease from spreading, a comprehensive diagnostic and medical facility network to detect and treat disease as quickly as possible, and a significant amount of research to rapidly develop new drugs and vaccines to protect the public in the future (Atzrodt *et al*. 2020).

The coronavirus (COVID-19) pandemic is our generation's most significant global health disaster and the most difficult issue since World War II. The virus, which first appeared in Asia at the end of last year, has spread to all continents except Antarctica (Gostin *et al*. 2020).

In addition to being a health issue, the pandemic is also a massive socioeconomic crisis. Every country it affects could be left scarred for life by its terrible social,

economic, and political ramifications, which could last for decades. The United Nations Development Program (UNDP), in collaboration with the World Health Organization (WHO) and the Global Humanitarian Response Plan (GHRP), is in charge of the United Nations' socioeconomic recovery efforts (GHRP) (DeWit *et al.* 2020).

Every day, more people find themselves unable to maintain their standard of living due to the loss of their jobs and income, and there is no way to know when things will get back to normal. Hotels and beaches in small island nations that are heavily reliant on tourism are being closed down or abandoned entirely. According to the International Labor Organization, 195 million jobs will be lost (ILO) (Monitor 2020).

1.1 Importance of study

To date, the worldwide incidence of COVID-19 infections (206.318,794), the number of deaths (434,949), and the number of people who have recovered from COVID-19 are all known (1851,145,353) (World Health Organization 2021). According to the Iraqi government, the number of COVID-19-infected persons has reached 1,751,176; the number of deaths has reached 19,466; and the number of recovered patients has reached 1,566,703. Iraqi Ministry of Health (Iraq 2021). During the last two years, as a result of COVID-19, daily life has been significantly altered, not only in one country but throughout the world, and not just in the United States. The threat of infection, impending constraints on freedom, and the association between high perceived stress and COVID-19 all have a major impact on the level of stress experienced by individuals. Therefore, the reason for conducting this research was to identify the reported stress levels of participants one month after contracting COVID-19.

1.2 Problem statement

Corona virus is a global problem, it represents the greatest threat to life, livelihoods, and the economy. Corona virus can restrict the movement of people and goods, and lead to the spread of other infectious diseases. Many people have died due to Corona virus. The concerned authorities must provide the necessary vaccines as soon as

possible to prevent Corona virus. This study helps to determine the perceived stress of people infected with Corona virus to reduce symptoms of the disease.

1.3 Aim of the study

A. To determine the individuals perceived stress level one month after they were infected with COVID-19.

B. To find out the relationship between individuals' perceived stress level one month after they were infected with COVID-19 and their demographic characteristic.

1.4 Limitations of the study

As the study was based on a cross-sectional research design, the results are limited by the study period. In addition, the fact that the research data is based on self-report is another limitation of the research.

2. GENERAL INFORMATION

2.1 History of the coronavirus epidemic

There is little doubt that COVID-19, the most recent case of ARTI (acute respiratory infection), is raising awareness about the dangers of highly contagious viruses like coronaviruses and testing our preparedness to cope with them. There have been human infections caused by the coronavirus since the early 1960s; nevertheless, this virus has only recently been linked to lethal epidemics (Pal *et al*. 2020). It's the third major outbreak of a coronavirus-related respiratory ailment in the last two decades, and it's wreaking havoc on economies all around the globe. The family Coronaviridae is part of the order Nidovirales, which includes SARS-CoV-2. Among the several subfamilies that make up this family are the Coronavirinae and the Torovirinae. The four genera of the family Coronavirinae are called alpha-, beta-, gamma-, and delta-coronaviruses, respectively. Previously, the Betacoronavirus genus was known to have strains A, B, C, and D. Included in this group are four different families of enveloped envelopment viruses: lineage A's Embecovirus, lineage B's Sarbecovirus, lineage C's Mercovirus, and lineage D's Nobecovirus (lineage D) are now sub-generations of Beta coronavirus. SARS-CoV-2 is a member of the Beta coronavirus genus and the Sarbecovirus subgenus (Yang and Wang 2020). Coronaviruses are round-shaped, polymorphic viruses that range in diameter from 80 to 120 nanometers. A racket-like hump on the virus's surface is a feature of the virus's characteristics. The corona virus has been so named because of its resemblance to the sun's corona, which is caused by these spikes. Because they are heat- and UV-sensitive, coronaviruses can only be preserved for a short time at -80 °C. Researchers routinely inactivate viruses for 30 minutes at 56 °C to prevent their reactivation. Coronaviruses can also be rendered inactive by disinfectants comprising chlorine, peracetic acid, and 75% ethanol (Yang and Wang 2020).

Because it is an animal virus, the coronavirus can be spread via aerosols from one animal to another or from one human to another. Many animals and birds, including camels, pigs, turkeys, mice, dogs, bats, and cats, are currently known to serve as reservoirs for this pathogen. However, the bat is probably the best-known of these

species as a carrier of disease to humans (Munster 2020). Coronavirus was first discovered in humans in 1960, and it was initially thought to be the cause of colds. MERS-co-infection's role as a respiratory illness cause wasn't uncovered until much later. Before the 2002 SARS pandemic, human coronaviruses had a history of causing mild respiratory infections (McIntosh *et al*. 1967). The development of viruses similar to IBV in the brains of suckling mice that had been given to patients suffering from upper respiratory disease. The authoritative publication is volume 58, number 6, of A Journal published by the United States National Academy of Sciences. The coronaviruses HCoV-229E and HCoV-NL63 and the beta coronaviruses HCoV-OC43 and HCoV-HKU1 are among the most prevalent types. Consider Kaye and co. In a seven-year (1960–1967) study, researchers examined residents' sera using a modified version of the hemagglutinating inhibition (HI) test with the coronavirus strain HCoV-OC43. In all, 93 seroconversions were analyzed, 44 of which were associated with diagnosed conditions and 49 of which were not (Dowdle 1971). There was a total of 67 detours as a result of three epidemics in the winter and spring of 1960–1961, 1964–1965, and 1966–1967. Over a seven-year period, the OC43 strain of - coroner was linked to 3 percent of the total 1328 cases of respiratory disease. However, severe acute respiratory syndrome (SARS) was the first fatal illness associated with Coronavirus (Dowdle 1971).

In 2002, the virus continued to spread over the world (SARS-CoV). The Middle East Respiratory Syndrome (MERS) coronavirus was found in a new epidemic in Saudi Arabia in 2012. SARS-CoV and MERS-CoV both belong to the family Coronaviridae. have high genome sizes for Beta coronavirus genus members (27.9 kb for SARS and 30.1 kb for MERS). SARS-CoV and MERS-like viruses are among the many coronaviruses that have been found in bats (Drosten 2014). When it comes to SARS and MERS-CoV, most cases are spread from person to person at healthcare facilities; 43.5 to 100 percent of MERS cases in outbreaks have been connected to healthcare facilities, and comparable findings have been reached for several SARS clusters as well. SARS and MERS have extremely similar clinical courses, with the exception of a few minor variations. Similar processes may be at work in both MERS and SARS, despite the fact that MERS' pathophysiology remains a mystery (Petersen *et al*. 2020).

It was in Foshan, China, in November 2002 that the SARS-CoV virus was first linked to a case of atypical pneumonia. Since then, the outbreak has rapidly spread, forcing the World Health Organization to declare the illness a "global health danger." Within a matter of months, more than 300 instances had been documented on mainland China, with the vast majority of those affected being health care workers (Leung 2004). Sick people traveling to other countries helped spread the sickness, which has now reached Hong Kong, Vietnam, Canada, and a number of other countries. The World Health Organization (WHO) collaborated with a worldwide system of research institutions to identify the virus that caused the SARS epidemic in March of 2003 Drosten *et al* . researches from the same year that SARS initially appeared suggests that a novel coronavirus strain is to blame. Genomic research confirmed the virus's uniqueness by showing that it shares only a weak genetic relationship with other coronaviruses (identical in only 50 to 60 percent of its nucleotide sequence). Since the outbreak of the SARS pandemic, China has experienced both a public health crisis and a social and economic crisis. Initially, it was thought that the virus would spread over the world and trigger a major economic crisis. As a result, authorities were able to effectively manage the pandemic thanks to the swift actions taken by the authorities, such as isolating suspects and tracing contacts (Chou 2004). As a result, the SARS outbreak, which had affected 27 countries at the time, was declared over by the end of July 2003, killing 774 people. Zoonotic illnesses from the civet cat may have resurfaced in late 2003 (December–January 2004), causing a few instances of SARS (Paguma larvae). As a result, there have been no further reports of SARS-associated human cases. Despite the low fatality and morbidity rates associated with SARS, the epidemic's health effects did not just affect those who were sick. Although it has created panic among the general community, it has been largely owing to its novelty, its potential to spread quickly in hospitals, and its vulnerability to health care professionals (Chou 2004).

In June 2012, ten years after the first SARS case was found, a person in the Kingdom of Saudi Arabia was found to have severe pneumonia and renal fever (Fouchier 2012). From the dead patient's sputum, the Middle East Respiratory Syndrome Coronavirus (MERS-CoV) was found to be the cause of death. In April 2012, though, a general hospital in Zarqa, Jordan, saw an outbreak of severe respiratory illness before the detection of MERS in Saudi Arabia. Eleven people, including eight health care

workers, were determined to be infected; one of them died as a result. Because epidemiological investigations and laboratory testing undertaken after the outbreak's onset were inconclusive, the disease's source was unknown at the time. MERS-CoV was identified in two of the deceased patients who had respiratory and serum samples retested following the discovery of the new coronavirus illness in Arabia (Hijawi *et al.* 2013). After that, there were only a few cases in the UK, but the disease kept spreading around the world as people who had it went places. In the United States, most cases of MERS are spread from one hospital patient to another. In May of this year, the first person with coronavirus who was back in South Korea from the Middle East To date, July 26), there have been 186 confirmed cases, 36 of which have led to death, and 138 bodies have been found. Patients were moved between hospitals during the MERS outbreak in Korea, so the disease spread both inside and outside of hospitals. In this epidemic, 16 people got MERS from hospitals. This makes it the largest MERS outbreak outside of the Middle East. As of November 2019, the World Health Organization had records of 2,494 laboratory-confirmed cases of MERS, including 858 deaths (WHO MERS). People who have had this condition have said they had a fever, a cough, and trouble breathing (Ki 2015). Pneumonia has been recorded frequently, but it hasn't always been present. In addition, there have been reports of gastrointestinal issues, including diarrhea. MERS-CoV has been reported as asymptomatic in some laboratory-confirmed cases, meaning that some patients did not exhibit any clinical symptoms but were nevertheless infected with the virus. These asymptomatic patients were discovered through rigorous contact tracing of a confirmed laboratory case (Van Spall 2020). Human-to-human transmission is the most common mode of illness transfer in health care facilities. However, other research has suggested that Arabian camels may serve as a reservoir host for MERS-CoV and a source of human MERS infection. We don't yet know what role the load plays in viral transmission or which routes the virus uses to spread. The medical and scientific sectors were unprepared to deal with a fatal infection during the SARS pandemic. However, the MERS-CoV pandemic occurred a decade later because of developments and advances in molecular diagnostics, such as improved sequencing methods and next-generation sequencing technology, which now make it easier to sequence the whole genome (Van Spall 2020).

Wuhan was the first place where the epidemic was discovered in November of this year. Human-to-human transmission is thought to have occurred before the discovery of the disease. In Hubei, the number of reported cases steadily grew from 60 on December 20 to at least 266 on December 31 based on a retrospective investigation that began in December 2019. Dr. Zhang Jiexian treated a case of pneumonia that was discovered on December 26. Wuhan Jianghan's CDC was notified by her on December 27. On December 28, Vision Medicals notified the China Center for Disease Control (CCDC) of the discovery of a novel coronavirus (Topol *et al*. 2020).

Doctors at Wuhan Central Hospital notified the authorities after receiving a test report from Capital Biomedlab on December 30 indicating a false positive for SARS. Doctors Li Wenliang and Ai Fen are among the eight who have now been warned by the authorities after they were sanctioned on January 3 for spreading misinformation. The Wuhan Municipal Health Commission (WMHC) published a notification that night on the "treatment of idiopathic pneumonia." As of the following day, Wikimedia Commons had confirmed 27 occurrences, which was sufficient to begin an inquiry (Dehner 2020).

On December 31st, the pneumonia cases were reported to the China WHO office, which promptly began investigating. Chinese officials said the initial cases originated in the wholesale Huanan Seafood Market, which also stocked live animals. George Zhao, director of the CDC, will announce his retirement in May of 2020.stated that the market was not the original one (animal samples tested negative). One Toronto highway will get a warning sign in March of 2020. On January 11, China's National Health Commission notified WHO that the epidemic had been related to contact with the market and that a new coronavirus strain had been confirmed in China the previous day (Khan 2020).

Cases practically doubled every seven and a half days at first, but then they started to slow down a bit. Amid the Chinese New Year movement, at some point between the beginning and the middle of January, the virus spread to other parts of China (Hao 2020). Wuhan served as a crossroads for various modes of transportation, including trains. GISAID shared the virus's genome on January 10. According to a retrospective

study released in March of this year, there were 6,174 patients who had reported symptoms by January 20th. In light of the "potential for a pandemic," a report published on January 24 underlined human transmission, urged health care workers to wear personal protective equipment, and asked for testing. "The inevitable autonomous outbreak of illness in major cities globally" has been predicted by the first published modeling study, which calls for "large-scale public health measures (Hao 2020).

The WHO declared the epidemic a Public Health Emergency of International Importance on January 30 after 7,818 illnesses had been confirmed (PHEIC). The World Health Organization declared it a pandemic on March 11, 2021. While studying at home, a Mexican student wears a medical mask to protect his or her face. During the early stages of the epidemic, the dangers of infection were not fully understood (WHO 2021).

Italy had registered its first confirmed case of Ebola at the end of January, and it was a Chinese visitor. On March 19, Italy passed China in the number of deaths reported. The number of confirmed cases in the United States has surpassed that in China and Italy as of March 26. The majority of confirmed infections in New York, according to genomic data, originated in Europe rather than Asia. Previous sample testing found an infection in France on December 27, 2019, and a death from the disease in the United States on February 6, according to previous results (Mouloudj *et al*. 2020). In April, a cargo plane from Russia flew to the United States carrying medical supplies. One in ten individuals globally may be sick, or 780 million people, according to the World Health Organization in October. However, only 35 million people have been proven to be afflicted. The vaccine trial findings from Pfizer were revealed on November 9, with 90% efficacy against infection. Novavax submitted a vaccine Fast Track application to the FDA on that date (Mouloudj *et al*. 2020).

One type had been found throughout Kent and most of the southeast of the UK, according to a report released by Public Health England on December 14. Changes in the spike protein made by the variant, dubbed alpha in the future, suggested that it may be more contagious (Sachs 2021). One thousand one hundred eighty-eight infections

had been confirmed as of Wednesday, December 13th. Alex Azar, the Secretary of the United States Department of Health and Human Services, has granted vaccine manufacturers a "waiver of responsibility" on February 4, 2020. On January 20, 2021, the alpha variety was discovered in 33 nations for the first time, with the discovery originating in the United Kingdom. Japan-bound travelers returning from Brazil were the first to be tested for the gamma variant on January 6. As of January 29, a clinical trial in South Africa showed that 49% of a beta strain was neutralized by the Novavax vaccine. In a clinical trial conducted in Brazil, 50.4 percent of patients were vaccinated with the Corona vaccine (Sachs 2021).

In March 2021, a temporary hospital for COVID-19 patients will be set up in Brazil. Blood-clotting issues with the Oxford-AstraZeneca COVID-19 vaccination were cited by numerous countries on March 12 as the reason for discontinuing use (CVST). On March 20, the World Health Organization and the European Medicines Agency found no link to the stroke, causing many nations to resume the vaccines. In March, an animal host was the most likely source of Ebola, but WHO did not rule out alternative possibilities. India was the first place where the delta variety was discovered. When the variation was initially found in the UK in mid-April, the government had to postpone the reopening that was originally slated for June because of the third wave (America 2019).

As of November 10, Germany has warned anyone under the age of 30 not to have the Moderna vaccine. Omicron was found in South Africa on November 24. On November 30th, the WHO officially recognized it as a notifiable condition (an alternate form of worry). The more recent version is being disseminated at a faster rate than the delta variant (Rodriguez 2022). After reaching 100 million on January 1, Europe saw a rise in Omicron instances. Baricitinib and Sotrovimab, two novel therapies, were recommended by the World Health Organization on January 14th (though conditionally). As of January 24, 2022, an acronym for the Institute of Health Metrics and Evaluation Model reported that 57% of the world was infected with the COVID-19 virus. On March 6, it was announced that the number of persons who have died as a result of the epidemic has surpassed 6 million worldwide (Rodriguez 2022).

2.2 Coronavirus

Coronaviruses, also known as CoV for short, are a large group of viruses that are capable of causing a wide range of illnesses, from mild to severe. It is a new strain of the coronavirus, also known as nCoV, which has not been seen in humans before.

2.3 Human Coronavirus Types

Coronaviruses are so named because they have spikes on their surface that resemble a crown. Coronaviruses are classified into four major sub-groups, which are known as alpha, beta, gamma, and delta. Human coronaviruses were discovered for the first time in the mid-1960s (Ramaiah and Arumugaswami 2021). People can be infected by seven different coronaviruses. These are the viruses that can infect people:

2.3.1 Coronaviruses in humans that are commonly encountered

- 229E (alpha coronavirus)
- NL63 (alpha coronavirus)
- OC43 (beta coronavirus)
- HKU1 (beta coronavirus)

2.3.2 Other coronaviruses that affect humans

- An infection known as MERS-CoV is brought on by a virus (the beta coronavirus that causes Middle East Respiratory Syndrome, or MERS).
- The coronavirus known as SARS-CoV is the virus that causes SARS (the beta coronavirus that causes severe acute respiratory syndrome, or SARS).
- The virus known as SARS-CoV-2 is responsible for causing SARS (the novel coronavirus that causes coronavirus disease 2019, or COVID-19).

2.4 Covid-19 signs and symptoms

After being diagnosed with COVID-19, people should prepare themselves to experience a wide variety of symptoms, the severity of which can range from a minor annoyance to a serious illness. If you have been exposed to the virus, symptoms may appear anywhere between 2 and 14 days after being exposed to it. Symptoms, which can range from mild to severe in their intensity, can affect people of any age or gender. These symptoms are brought on by a virus known as COVID-19, which affects only a small portion of the population.

- The flu or the chills.
- A hacking cough, as well as shortness of breath or trouble breathing.
- Aches and pains throughout the body.
- Headache.
- Suddenly diminished ability to taste or smell.
- Inflammation of the throat in addition to stuffy or runny nose.
- A nauseated stomach or puking.
- Diarrhea.
- Fatigue.

2.4.1 When Should You Seek Emergency Medical Intervention?

- Having trouble breathing is a common symptom.
- chest pain or pressure that doesn't go away consistently.
- A fresh reason for anxiousness about the future.
- Incapacity to regain or keep one's usual level of consciousness.
- Depending on the individual's skin tone, the skin, lips, and nail beds will have a blueish, grayish, or pale gray hue.

2.5 Transmissions

The respiratory route, which accounts for the majority of cases of the disease, involves the inhalation of droplets and other minute airborne particles by individuals (which form an aerosol when they are combined). What an infected person exhales when he or she is sick is the same as the exhalation they take in when they are healthy. When affected people are physically close to one another, it is more likely that COVID-19 will be transmitted. Infection, on the other hand, has the ability to spread over longer distances, particularly when it occurs in enclosed environments (Kass 2021).

2.6 Causes

SARSCoV2 is a virus that is a member of the coronavirus family of viruses, which is a broad and diverse collection of viruses with a wide range of characteristics. There is only one positive single-stranded RNA gene in Ebola, and they are all located in the same region of the virus. For the most part, coronaviruses can spread to humans and other mammals (including livestock and companion animals). To get a simple cold or a more serious illness like Middle East Respiratory Syndrome (MERS), you can pass on coronaviruses from one person to another (Malik 2020). This is the most common way that people die in the Middle East. Following 229E, NL63, OC43, HKU1, MERS-CoV, and the original SARS-CoV, SARS-CoV-2 is the eighth coronavirus to infect humans. This is the second SARS-CoV strain to be found. The first coronavirus to infect humans and disseminate worldwide was the original SARS-CoV (Malik 2020).

2.7 Diagnosis

The presence of viral RNA fragments can be determined through the use of nucleic acid tests. are the most commonly used methods of detecting the presence of SARS-CoV-2 infection. These tests are limited in their capacity to assess the duration of a patient's infectivity since they only detect RNA and not infectious viruses, which limits their ability to determine the duration of a patient's infectivity. In most cases, respiratory samples acquired using the nasopharyngopharyngeal swab are used for the test; however, additional sampling methods such as sputum or a nasal swab can also

be used. For the disease, the World Health Organization (WHO) has released a number of diagnostic procedures that can be used (Loeffelholz and Tang 2020).

2.8 Prevention

Vaccination, isolation, mask use, distance from others, ventilation, hand washing for at least twenty seconds, frequent hand washing, Effective ways to avoid getting sick include taking care of your lungs and not touching your eyes, nose, or mouth with hands that haven't been washed (Karami 2021).

Patients with COVID-19 should stay at home except for medical care, make an appointment before seeing a healthcare provider, wash hands often, avoid sharing personal belongings with others, and wear face masks when visiting the office or riding in a car with other people (Karami 2021).

2.9 Vaccine

The COVID-19 vaccination, also known as the severe acute respiratory syndrome coronavirus 2 vaccination (SARSCoV2), aims to provide the virus with lifetime protection. Before the COVID-19 pandemic, scientists knew a lot about the structure and function of coronaviruses, such as those that are responsible for the severe acute respiratory syndrome (SARS) and the Middle East respiratory syndrome (MERS). New vaccine platform research and development in the first half of 2020 has been accelerated by this new knowledge (Chafekar and Fielding 2018). Preventing the potentially fatal symptoms of SARS-CoV-2 was the initial focus of vaccine development efforts. On January 10, 2020, researchers made the SARS-CoV-2 genetic sequence data available to the public through the GISAID, and the pharmaceutical sector announced a substantial commitment to combat COVID-19 on March 19, 2020. Many people believe that the COVID-19 immunizations have helped lessen the severity and mortality rates of the virus (Chafekar and Fielding 2018).

The vaccine had been administered to more than 197 nations and reached more than 4.49 billion individuals (for a total of more than 8 billion people) as of late December

2021 (as of the end of December 2021). The vaccine created by the pharmaceutical company Oxford-AstraZeneca was the most commonly utilized (Chafekar and Fielding 2018).

2.10 Treatment

Patient care was severely limited during the first two years of the epidemic, as there was no specific, effective therapy or cure on the market. The oral protease inhibitor Paxlovid, which was authorized by the European Medicines Agency's (EMA) Committee for Medicinal Products for Human Use (CHMP) in 2016, will be available to adult HIV/AIDS patients starting in 2021. Paxlovid is a combination of the anti-AIDS medication nirmatrelvir and the anti-HIV medication ritonavir. Later, the FDA granted it conditional approval (Cucinotta and Vanell 2020).

Mild COVID-19 instances account for the vast majority of reported cases. Acute supportive care comprises medicine, such as paracetamol or nonsteroidal anti-inflammatory drugs (NSAIDs) to reduce symptoms (fever, body pains, cough), appropriate oral fluid intake, as well as time spent resting and recuperating. Also advised are strong personal hygiene practices as well as a well-balanced diet rich in antioxidants (Schrezenmeier and Dörner 2020).

Examples of supportive care include fluid therapy, oxygen assistance, prone positioning, and other medications or devices to assist disease-affected organs that are not the primary focus of the treatment. If the situation is critical, you may need to go to the hospital for treatment. Dexamethasone, a glucocorticoid, has been shown to reduce mortality rates in clinical trials in patients with low oxygen levels. If noninvasive ventilation fails to offer adequate support for breathing, it is possible that a patient will need to be transferred to an intensive care unit in order to receive mechanical ventilation. Respiratory failure in patients has led to the implementation of extracorporeal membrane oxygenation (ECMO) (Marson 2021).

In the United States and Europe, health authorities do not advocate the use of current pharmaceuticals like early therapy, hydroxychloroquine, lopinavir/ritonavir, and

ivermectin, among others. Treatment of high-risk cases that require treatment as soon as feasible could be aided by the use of two monoclonal antibody-based medications. Even though it's widely available in the United States and a few other nations (including Australia and Canada), antiviral remdesivir can only be obtained in limited quantities in each of those countries (including the United States). Even the World Health Organization (WHO) advises against using it in conjunction with mechanical ventilation because there is no evidence to support its usefulness (Sah *et al*. 2022).

2.11 Variants

The World Health Organization (WHO) has classified a few different variants as either variants of concern (VoC) or variants of interest (VoI). These designations were given to a number of different variants (VoI). They are both carriers of the highly infectious D614G mutation, which was dominant in earlier VOC outbreaks in the United States before being removed from most jurisdictions in the country. Coexistence between Omicron and Delta may be possible because of the virus' ability to evade the body's immune system, allowing it to propagate through breakthrough infections that are more likely to affect the unvaccinated population (Mukherjee and Satardekar 2021).

2.12 Prognosis

The degree of COVID-19 sensitivity varies from individual to individual. Some people infected with the virus may show no symptoms at all, while others may experience mild symptoms similar to those of the common cold. There were only 7.4 percent of those over 65 who needed to be hospitalized due to severe symptoms, which was 3.4 percent of all cases. Serious or urgent conditions can take three to six weeks to recover from, whereas minor instances usually take two weeks to recover from. Between two and eight weeks have passed between the onset of symptoms and death in individuals who have died. Patients infected with COVID-19 who have a prolonged prothrombin time and high C-reactive protein levels are at an increased risk of requiring transport to the intensive care unit when they are admitted to the hospital (Wang 2020).

3. MATERIAL AND METHOD

3.1 Study design

This is a descriptive cross-sectional study.

3.2 Location and sample

The research was carried out at Baghdad's Al-Karama Teaching Hospital and Mohammed Baqer Al-Hakeem Hospital between 11.2021-07. 2022.The study sample consisted of only 225 patients from the two hospitals, and it was chosen using non-probability sampling.

3.3 Study instrument and Data Collection

A personal information form and a perceived stress scale were used in data collection (Appendix 2).

3.3.1 Personal Information Form

The form contains eight questions that determine your age, gender, smoking status, presence of a chronic disease, whether your family and/or relatives have had COVID, whether you have lost a family member and/or one of their relatives due to COVID, whether you have been vaccinated against COVID 19, and the time since your last vaccination.

3.3.2 Perceived Stress Scale

Stress perception is measured by the Perceived Stress Scale (PSS), which is the most extensively used psychological tool for this purpose. The scale of perceived stress was created by (Cohen *et al.* 1983). and it was adapted to Arab society by conducting a validity and reliability study in 2021 by Ali *et al.* The values for dimensions are 79

and 86, respectively, on the Cohen scale of perceived stress. The Cronbach alpha coefficient in this study is 0.719.

The scale consists of ten items, each of which is assigned a point value of 1, 2, 3, 4, or 5 on a range of 1 to 5. In order to evaluate the scale, it is multiplied by the overall score; the scores range between 10 and 50. A stress level of 30 or higher shows that the individual is under stress. The stress level rises in direct proportion to the increase in the score.

3.4 Data collection method

Data was collected using the questionnaire and the interview technique. The average data collection time was 10 minutes.

3.5 Research variables

3.5.1 Dependent variable

Perceived stress level.

3.5.2 Independent variables

Age, gender, and incidence of chronic diseases; the situation of deaths due to COVID in his family and/or relatives; and the situation of having received the COVID-19 vaccine.

3.6 Data Analysis

Examining the information required for this study was done using SPSS (Statistical Package for the Social Sciences) for Windows version 25.0. "Reliability Analysis" was done to see how accurate the scales were. When figuring out what the data meant,

descriptive statistical methods were used (number, percentage, mean, standard deviation).

The value of error variance goes up when there are outliers and extreme values. This decreases the power of statistical methods. So, before starting the statistical analysis, outliers were looked at and their presence in the data sets was checked.

The data used were checked to see if they fit the normal distribution. The Q-Q Plot can be used to see if a distribution is normal (Chan 2003:280-285). Also, for the used data to have a normal distribution, the skewness and kurtosis values must be between ±3 (Shao 2002).

When the data followed a normal distribution, the independent t-test was used to compare two groups, whereas the one-way ANOVA was used to compare more than two groups.The significance level will be accepted as $p<05$.

3.7 Ethical dimension

Ethical approval was obtained from the Iraqi Ministry of Health / Baghdad Al-Karkh Health Department on July 9, 2021, to carry out the research (Appendix 7). The institutional approval was obtained from the hospitals in which the research was conducted. In addition ethical approval was obtained from Çankırı Karatekin University on 09/ 11 /2021 (Appendix 6). The individuals who were included in the research were informed, their oral consent was obtained, and their voluntary participation in the research was guaranteed.

4. RESULTS

Table 4.1: Distribution of participants by descriptive characteristics

Variables		Frequency (N)	Percent (%)
Age ($\bar{X}$±SS =33.19±9.98)	Under 24	36	16.0
	24-29	58	25.8
	30-34	50	22.2
	35-39	25	11.1
	40 years and older	56	24.9
Gender	Male	131	58.2
	Female	94	41.8
Are you smoking	Yes	53	23.6
	No	172	76.4
Do you have chronic diseases?	Yes	35	15.6
	No	190	84.4
Do you have chronic diseases?	No	190	84.4
	Hypertension	10	4.4
	Diabetes	6	2.7
	Other	19	8.4
Has anyone else in your family and/or relatives had covid?	Yes	205	91.1
	No	20	8.9
Has anyone in your family and/or relatives died due to covid?	Yes	87	38.7
	No	138	61.3
Have you had the Covid 19 vaccine?	Yes	185	82.2
	No	40	17.8
If you have been vaccinated, did you catch COVID 19 before or after you were vaccinated?	Before	154	68.4
	After	31	13.8
	I didn't get the vaccine	40	17.8
Total		**225**	**100.0**

The distribution of the participants in the research according to their descriptive characteristics is given in Table 4.1. When the distribution of the participants according to their age is examined, it is seen that 16% are under the age of 24 or 25. 8% are between 24-29, 22.2% are between 30-34, 11.1% are between 35-39, and 24.9% are 40 and over.

When the distribution of the participants by gender is analyzed, 58.2% are male and 41.8% are female. It is seen that 23.6% of the participants smoke and 76.4% do not smoke. It is seen that 15.6% of the participants have a chronic disease, and 84.4% of them do not have a chronic disease.

It is seen that 91.1% of the participants have someone else in their family with COVID, and 8.9% are not. According to the findings, 38.7% of the participants' families died as a result of COVID, while 61.3% did not. It is seen that 82.2% of the participants were vaccinated and 17.8% were not vaccinated. It is seen that 68.4% of the participants were COVID before vaccination, 13.8% were COVID after vaccination, and 17.8% were not vaccinated.

Table 4.2: Reliability analysis results of the scale used in the study

Scale and Sub-Dimensions	Cronbach's Alpha
Insufficient self-efficacy perception	0.625
Perception of stress/discomfort	0.750
Perceived stress scale	0.719

Table 4.2 shows the results of the research's analysis of the scale's reliability. The scale's reliability was found to be 0.719, which is a good level of reliability. If the Cronbach Alpha value is higher than 0.60, it shows that the scales are reliable. This shows that the scale used in the study is good in and of itself.

Table 4.3: Reliability analysis results of the scale used in the study

Scale and Sub-Dimensions	Skewness	Kurtosis	Conclusion
Insufficient self-efficacy perception	-0.135	-0.347	Normal
Perception of stress/discomfort	0.201	-0.756	Normal
Perceived stress scale	-0.363	-0.037	Normal

Table 4.3 shows the results of the study's normality analysis of the scales. The fact that the values for skewness and kurtosis are between ±3 shows that the data have a normal distribution.

Table 4.4: Descriptive statistics of the scale used in the study

Scale and Sub-Dimensions	Minimum	Maximum	Mean±SD
Insufficient self-efficacy perception	0.00	16.00	7.36 ±3.72
Perception of stress/discomfort	0.00	24.00	9.77±5.43
Perceived stress scale	0.00	34.00	17.14±7.22

Descriptive statistics of the scale used in the study are given in Table 4.4. The perceived stress scale total score was 17.14±7.22, the perception of insufficient self-efficacy sub-dimension score was 7.36 ±3.72, and the perception of stress/discomfort sub-dimension score was 9.77±5.43.

Table 4.5: Comparison of inadequate self-efficacy perception scores according to the descriptive characteristics of the participants.

Variables		$Mean \pm SD$	**Test Value**	**P**
Age	Under 24	7.56±4.08	0.353***	0.842
	24-29	7.64±3.53		
	30-34	7.54±3.74		
	35-39	6.88±4.19		
	40 years and older	7.02±3.52		
Gender	Male	7.48±3.96	0.554**	0.580
	Female	7.20±3.37		
Are you smoking	Yes	7.43±4.47	0.155**	0.877
	No	7.34±3.47		
Do you have chronic diseases?	Yes	6.69±4.12	-1.176**	0.241
	No	7.49±3.64		
Has anyone else in your family and/or relatives had covid?	Yes	7.40±3.75	0.395**	0.693
	No	7.05±3.46		
Has anyone in your family and/or relatives died due to covid?	Yes	7.91±3.61	1.748**	0.082
	No	7.02±3.76		
Have you had the Covid 19 vaccine?	Yes	7.55±3.54	1.579**	0.116
	No	6.53±4.40		
If you have been vaccinated, did you catch COVID 19 before or after you were vaccinated?	Before	7.39±3.53	2.070***	0.129
	After	8.32±3.56		
	I didn't get the vaccine	6.53±4.40		

***p>0.05, **Independent t test, ***One-Way ANOVA**

To compare the participants' inadequate self-efficacy perception scores based on their descriptive characteristics. There was no difference that could be considered statistically significant between the participants. perception scores of insufficient self-efficacies based on their descriptive characteristics ($p > 0.05$).

Table 4.6: Comparison of stress/discomfort perception scores according to descriptive characteristics of the participants.

Variables		$Mean \pm SD$	Test Value	P
Age	Under 24	8.42±5.28	2.105***	0.081
	24-29	10.72±5.75		
	30-34	8.76±5.15		
	35-39	9.16±5.31		
	40 years and older	10.84±5.25		
Gender	Male	8.73±5.11	-3.506**	**0.001***
	Female	11.23±5.54		
Are you smoking	Yes	9.28±5.79	-0.752**	0.453
	No	9.92±5.32		
Do you have chronic diseases?	Yes	10.37±5.48	0.709**	0.479
	No	9.66±5.42		
Has anyone else in your family and/or relatives had covid?	Yes	9.78±5.38	0.020**	0.984
	No	9.75±6.00		
Has anyone in your family and/or relatives died due to covid?	Yes	10.75±5.22	2.155**	**0.032***
	No	9.16±5.48		
Have you had the Covid 19 vaccine?	Yes	9.83±5.12	0.319**	0.750
	No	9.53±6.71		
If you have been vaccinated, did you catch COVID 19 before or after you were vaccinated?	Before	9.60±5.17	0.873***	0.419
	After	10.97±4.83		
	I didn't get the vaccine	9.53±6.71		

***p<0.05, **Independent t test, ***One-Way ANOV**

To compare the stress/discomfort perception scores of the participants based on their descriptive characteristics, there was a statistically significant difference between the stress/discomfort perception scores of male and female participants ($p \leq 0.05$). It is observed that the stress/discomfort perception scores of females are higher than those of males.

There was a statistically significant difference ($p \leq 0.05$) between the stress/discomfort perception scores of the participants based on the cause of their deaths. It is observed that the stress/discomfort perception scores of participants who died from COVID were higher than those of participants who did not die.

Table 4.7: Comparison of perceived stress scale scores according to the descriptive characteristics of the participants.

Variables		$Mean \pm SD$	Test Value	P
Age	Under 24	15.97±8.17	1.105***	0.355
	24-29	18.36±6.46		
	30-34	16.30±7.57		
	35-39	16.04±8.29		
	40 years and older	17.86±6.43		
Gender	Male	16.21±7.35	-2.307**	**0.022***
	Female	18.44±6.87		
Are you smoking	Yes	16.72±8.61	-0.484**	0.629
	No	17.27±6.76		
Do you have chronic diseases?	Yes	17.06±7.68	-0.072**	0.943
	No	17.15±7.15		
Has anyone else in your family and/or relatives had covid?	Yes	17.17±7.17	0.219**	0.827
	No	16.80±7.90		
Has anyone in your family and/or relatives died due to covid?	Yes	18.66±7.21	2.533**	**0.012***
	No	16.18±7.09		
Have you had the Covid 19 vaccine?	Yes	17.37±6.77	1.051**	0.294
	No	16.05±9.05		
If you have been vaccinated, did you catch COVID 19 before or after you were vaccinated?	Before	16.99±6.73	1.880***	0.155
	After	19.29±6.71		
	I didn't get the vaccine	16.05±9.05		

***p<0.05, **Independent t test, ***One-Way ANOVA**

To compare the perceived stress scale of the participants based on their descriptive characteristics, there was a statistically significant difference on the stress levels scale ($p \leq 0.05$). of male and female participants. It is observed that female participants have higher perceived stress levels than male participants.

As a result, it was discovered that there was a difference that was statistically significant between the perceived stress scale of the participants and their cause of death ($p \leq 0.05$). It was observed that participants who experienced death due to COVID had higher perceived stress scores than participants who did not experience death.

5. DISCUSSION

In this study, we conclude that the ratios of the participants were similar in terms of age and that there was little variation in the ratios. As for gender, it was found that the percentage of males was higher than that of females. It is found that 23.6% of the participants are smokers, and 76.4% do not smoke. It is found that 15.6% of the participants have a chronic disease, and 84.4% of them do not.

It is noted that a large proportion of participants have another member of their family infected with the virus. It is noted that 38.7% of the participants' families died due to the Corona virus, while 61.3% did not die. It was found that there are high percentages of participants who have been vaccinated, which indicates increased awareness of the vaccine. It was noted that the highest percentage of participants were infected with the virus before vaccination.

According to the findings of our studies, there was not a statistically significant difference between the participants' descriptive characteristics and their perceptions of insufficient self-efficacy ($p > 0.05$). A study comparable to ours discovered that in the United States, studies were conducted by (Pressley and Ha 2021). A study in Spain, unlike ours, showed that the perception of academic self-efficacy is inversely proportional to anxiety. It's possible that this is due to the fact that anxiety is linked to both cognitive and emotional processes in the body. In this sense, negative emotions such as worry about how students will be affected by the pandemic and a high level of anxiety can make it more difficult for people to perform well in school and feel good about themselves (De la Fuente *et al.* 2019).

According to the results of our studies, there is a statistically significant difference between the stress/discomfort perception scores of the participants according to their gender ($p \leq 0.05$). It is seen that the stress/discomfort perception scores of female participants are higher than those of male participants. A study similar to ours that was done in China during the 2009 COVID-19 pandemic showed that a reduction in perceived stress reduced feelings of depression and anxiety. In addition, a study conducted with nurses found a positive correlation between stress and anxiety (Wang

et al. 2020). A study unlike ours found no significant association between sociodemographic characteristics, such as age, gender, and duration of clinical experience, in relation to years and hours worked, with levels of anxiety, depression, and perceived stress. In the same way, other studies done during epidemics have not found strong evidence that sociodemographic factors have an effect on maladaptive psychological responses (Preti *et al.* 2020).

According to the results of our studies, there is a statistically significant difference between the stress/discomfort perception scores of the participants according to their death due to COVID ($p \leq 0.05$). It is seen that the stress/discomfort perception scores of the participants who experienced death due to COVID were higher than those of the participants who did not experience death. One study we found similar to ours shows that there are some significant differences in the perceived stress associated with COVID-19 and the perception of risks in health-related students. Health-related students reported that the most altered physiological processes based on self-report were related to sleep quality and appetite routine during the pandemic (Guleken and Sutcubasi 2021). Unlike ours, a slightly different study found that PSS scores were moderately related to depression scores (Qiu *et al*. 2020).

In our study, we discovered statistically significant gender differences in the perceived stress scale of the participants ($p \leq 0.05$). It is observed that female participants have higher perceived stress levels than male participants. In previous studies conducted in Italy with comparable outcomes to ours, significant gender differences on perceived stress and emotions were observed, with women generally scoring higher on perceived stress than men. Less frequently in functional psychological states These outcomes are explicable in light of the hypotheses underlying the theory of response patterns (Di Fronso *et al.* 2022). found a study unlike ours where it was shown that perceived stress is not dependent on gender (Pedrozo *et al*. 2020).

In our study, there was a statistically significant difference ($p \leq 0.05$) between the perceived stress scale of the participants and the cause of their deaths. It was observed that participants who experienced death due to COVID had a higher perceived stress scale than participants who did not experience death. Similar to our findings, the

findings of this study explain why neuroticism is positively related to death anxiety. The findings confirm our hypothesis that perceived stress mediates the association between neuroticism and death anxiety. Previous investigations by (Pereira Morales *et al.* 2019). The results of a previous study showed that respondents with anxiety and depression were in the worst condition. They feel the strongest fears of death and the coronavirus. Most importantly, they are younger, too. Previous reports also indicated that younger adults were experiencing greater psychological stress during the pandemic (Chodkiewicz *et al*. 2021).

6. CONCLUSION AND RECOMMENDATIONS

6.1 CONCLUSİON

No statistically significant difference existed between the participants' perceptions of insufficient self-efficacy based on their descriptive characteristics ($p > 0.05$).

The study discovered that there are statistically significant differences ($p \leq 0.05$) between the stress/discomfort perception scores of male and female participants. It is observed that the stress/discomfort perception scores of females are higher than those of males.

The study discovered that there are statistically significant differences ($p \leq 0.05$) between the stress/discomfort perception scores of participants based on the cause of their deaths. It is observed that the stress/discomfort perception scores of participants who died from COVID were higher than those of participants who did not die.

There were statistically significant differences ($p \leq 0.05$) between the perceived stress scores of male and female participants. It is observed that female participants have higher perceived stress levels than male participants.

The study discovered that there are statistically significant differences ($p \leq 0.05$) between participants' perceived stress levels based on the cause of their deaths. It was observed that participants who experienced death due to COVID had higher perceived stress scores than participants who did not experience death.

6.2 RECOMMENDATİON

Develop effective patient, caregiver, and health care provider communication strategies. Nurses play a crucial role in the stress management of patients, particularly during lengthy hospitalizations. Therefore, nurses are well-positioned to lead a multidisciplinary care team, consisting of physicians, respiratory therapists,

rehabilitation therapists, and other members of the health care team, in order to provide patients with more effective stress management strategies.

Work on training the health staff to assist clients in recognizing their emotions and addressing their problems. Developing a therapeutic partnership. Be available to listen and converse with the customer. Assisting the client in developing verbal and nonverbal self-awareness. Clarify the significance of emotions and behaviors by providing feedback and confirming their significance with the client.

Help the client identify new ways to deal with crippling anxiety. Review the events, thoughts, and feelings that preceded the anxiety attack. list of resources and people to collaborate withassisting in the development of skills (for example, awareness of negative thoughts, saying "stop," and replacing negative thoughts with positive thoughts)

Suggesting deep breathing exercises and ways to calm down. Teach the person how to do deep breathing exercises correctly, and have them do them every day for at least 15 minutes. Deep breathing will help you relax and will also help your lungs work better.

Making sure that patients have a regular sleep schedule. This can help you sleep better and get a good night's rest.

Helping people find ways to meditate. This is another thing that can help patients calm down and feel less stressed. Make sure to do it in a quiet and calm environment. Yoga, listening to music, and watching or listening to calming videos or recordings are all ways to meditate. Meditation is a great way to clear our thoughts.

Encouraging regular exercise. Exercise is a tried-and-true way to deal with stress because it increases endorphins and helps relax muscles. Always set aside time every day for the patient to exercise. For example, you could take an exercise class, dance, do aerobics, go to the gym, or just walk.

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APPENDICES

APPENDIX 1. Sociodemographic and Clinical Characteristics Form.

APPENDIX 2. Sociodemographic and Clinical Characteristics Form (Arabic).

APPENDIX 3. Perceived Stress Scale.

APPENDIX 4. Perceived Stress Scale (Arabic).

APPENDIX 5. Permission for using the Perceived Stress Scale.

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