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Impact of COVID-19 Pandemic on Mental Health and Quality of Life among Nurses in Iraq

A Dissertation

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بسم الله الرحمن الرحيم

وَعَلَّمَ آدَمَ الْأَسْمَاءَ كُلَّهَا ثُمَّ عَرَضَهُمْ عَلَى الْمَلَائِكَةِ فَقَالَ أَنْبِئُونِي بِأَسْمَاءِ هَؤُلَاءِ إِنْ كُنْتُمْ صَادِقِينَ ﴿31﴾ قَالُوا سُبْحَانَكَ لَا عِلْمَ لَنَا إِلَّا مَا عَلَّمْتَنَا إِنَّكَ أَنْتَ الْعَلِيمُ الْحَكِيمُ ﴿32﴾

صدق الله العلي العظيم

من سورة البقرة، الآية (31و32)

صدق الله العلي العظيم

Dedication

I respectfully dedicate this humble work to

My father

My mother

My brothers

My wife with all love and respect.

My dear sons Leith, Gheith, Ali, Zahra, Huraa, Muntether (My precious)

My dear friends with my love and respect.

Burhan 2022

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I pray to Allah (the Great and Almighty)

To bless them all.

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Supervisor Certification

I certify that this dissertation, which is entitled **(Impact of COVID-19 Pandemic on Mental Health and Quality of Life among Nurses in Iraq)**, was prepared under my supervision at the College of Nursing, University of Babylon in partial fulfillment of the requirements for the Degree of Philosophy Doctorate in Nursing.

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Summary

Background: The COVID-19 pandemic is a major health crisis that has changed the life of millions globally.

Objectives: The study was to assess the impact of the COVID-19 pandemic on mental health status and quality of life for nurses in Iraq. Moreover, assess the levels of mental health status and the quality of life and to find out relationship between demographic data and mental health status and quality of life.

Methodology: A purposive non-probability sample of (1000) nurses from south to north in Iraq.

Results: The study revealed that the impact of COVID-19 on (anxiety, stress, and Quality of Life) for nurses was (p. value = 0.040, 0.045, and 0.029 respectively) and No impact of COVID-19 on (depression) for nurses. In addition, the study revealed that (23%) of the sample suffered from moderate depression, (25.8%) of the sample suffered from extremely severe anxiety, (17.1%) of the sample suffered from severe stress and (11.3%) of the sample suffered poor quality of life. Moreover, the study found a significant relationship between demographic data with depression, anxiety, stress, and quality of life at p. value ≤ 0.05.

Conclusion: Most of the sample were suffered from an abnormal change in mental health status and some nurses' quality of life were poor. Mental health status (anxiety and stress) was impacted for nurses by the COVID-19 pandemic. The COVID-19 pandemic has had an impact on the quality of life for nurses.

Recommendations: Protecting the nursing staff from chronic stress, anxiety, and depression. Develop and improve the Iraqi health system and provide health supplies that reduce the risk of transmission of infectious diseases to nursing staff.

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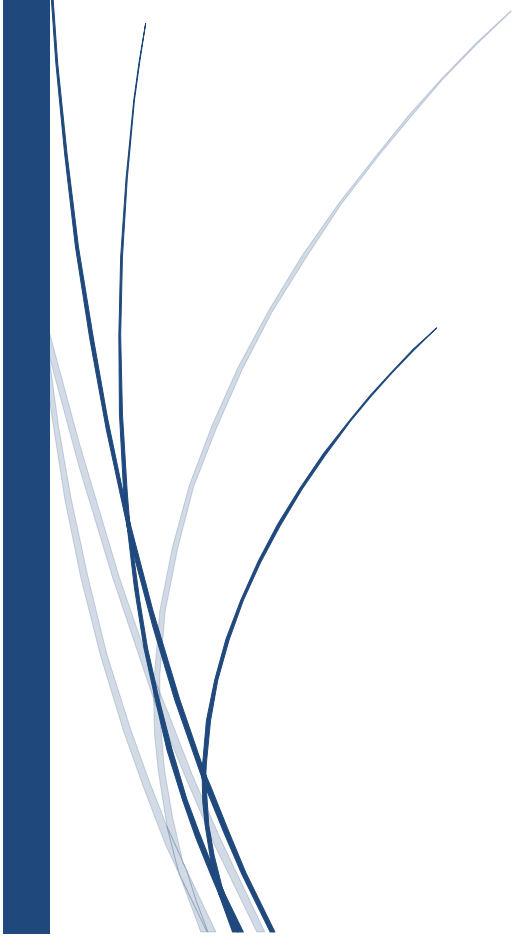
List of Abbreviations

Item	Meaning
%	Percent
ANOVA	Analysis of Variance
AOUP	Azienda Ospedaliera Universitaria Policlinico
CBI	Caring Behaviors Inventory
CDC	Centers for Disease Control and Prevention
COVID-19	Coronavirus Disease 2019
DASS21	Depression, Anxiety Stress Scale 21
df	Degree of Freedom
ENSS	Expanded Nursing Stress Scale
F	F-Statistic
GAD-7	Generalized Anxiety Disorder 7-item
GHQ-12	General Health Questionnaire
H.S.	High significant
H1N1	Hemagglutinin 1 Neuraminidase 1 Influenza A Virus
HADS	Hospital Anxiety and Depression Scale
HCWs	Health Care Workers
HR	Hazard Ratio
HWs	Health Workers
IES-R	Impact of Event Scale-Revised
ISI	Insomnia Severity Index
MERS	Middle East Respiratory Syndrome
MHNs	Mental Health Nursing
N.S	Not Significant
NASA-TLX	NASA Task Load index
OR	Odds Ratio
P. value	Probability Value
PHQ-9	Patient Health Questionnaire-9
PPE	Personal Protective Equipment
PTSD	Post-Traumatic Stress Disorder
QOL	Quality of Life
S.	Significant
SARS	Severe Acute Respiratory Syndrome
SARS-CoV-2	Severe Acute Respiratory Syndrome Coronavirus 2

SD	Standard Deviation
SF-12	Short Form (12) Health Survey
SF36	Short form (36) Quality of Life Questionnaire
Sig	Significance
SPSS	Statistics Package for the Social Sciences
T-test	Hypothesis Test Statistic
USA	United States of America
WHO	World Health Organization
WHOQOL	World Health Organization Quality of Life

Chapter one

Introduction



Chapter One

Introduction

1.1 Introduction

Despite the decreased mortality rate of that as 2 %, the COVID-19 virus has a very high transmission rate and a higher mortality rate than both severe acute respiratory syndrome (SARS) and middle east respiratory syndrome (MERS) (Heymann & Shindo, 2020).

The World Health Organization (WHO) defines a pandemic as "an epidemic that outbreaks world broad, or over very wide sites, or transit international border and ordinarily affecting more number of people"(Kazmi et al., 2020).

The unmatched pandemic has driven many countries to announce it as a common health emergency with the application of far-reaching measures to decrease its spread including travel limitation, emergency response techniques, and even complete country lockdowns (Adhanom, 2020).

Because fear, anxiety, and unsureness of the spread of infections, the public faced other defy that could affect their psychological and mental health and well-being as well as restricting them in home, lifestyle changes, living status, jobs, closing of schools, and universities (Wang et al., 2020).

Mental health is very significant to the person at every point of his or her life, beginning from childhood, adolescence, and adulthood, and connected to a level of the psychology of the well-characterized status of humans inadequate mental, behavioral, biological, and social environments (Labrague & De Los Santos, 2020).

The WHO defines mental health as a state of well-being in which the person knows his or her abilities, can handle normal life pressures, work productively and efficiently, and can contribute to his or her society' (Organization, 2020)

Thus, in the sense of its value system, mental wellbeing gives the individuals the opportunity to have pleasure in life to determine an equilibrium between activities, everyday life, and attempts at psychological adjustment (Bargon et al., 2020).

Mental health depends on the World Health Organization encompasses intrinsic well-being, a sense of self- effectiveness, autonomy, purview, and between generational dependency, self-achievement of romantic and intellectual capacity between others (Rus et al., 2020).

Mental health status disorder is any condition that affects the feelings, perceptions, or actions of individuals that do not adhere to their cultural values and personalities and has a detrimental impact on their lives or the lives of their families (Eldevik et al., 2013).

The unpredictable and rapid nature of the outbreak and the virus's infectious capacity would eventually lead to anxiety, stress, and other symptoms of mental health among individuals. Indeed, fear has been reported of contacting individuals who may be infected with COVID-19 (Lin, 2020).

The vicious pandemic and rapid spread, the advent of COVID-19 have heightened worldwide concerns resulting in mental health issues, high levels of anxiety, stress, and depression have already been observed in the general population, and in some cases even stigma and discrimination (Di Tella et al., 2020).

A disease of any type has a major effect on mental health, either non-communicable or communicable. Based on the spread of the

epidemic, as today as COVID-19 is in control of the whole world and countries such as China, the US, France, Italy, etc. are helpless in facing of this pandemic crisis (Kim & Kang, 2020).

Emotional pain and anxiety may be triggered by either the COVID-19 epidemic or other public health incidents (Ripp et al., 2020). Feeling nervous, uncertain, exhausted, or powerless is always prevalent during any disease epidemic, particularly when you have little knowledge about the disease (Montemurro, 2020).

These feelings of psychological distress will arise, even if you are not at high risk of getting ill. Many causes are responsible for the emotional consequences associated with the ongoing pandemic, such as concern regarding the length of the outbreak, the absence of proven therapies or vaccinations, and likely shortcomings in health services, including personal protective equipment (Lai et al., 2020).

The idea of the quality of life is an evaluative one, resulting from the comparison of the living conditions and activities that make up human existence to human wants, values, and ambitions (Gholami et al., 2012).

There are six aspects of the quality of life, according to the WHO are: physical conditioning, mental condition, level of independence, communications of social, environmental, and academic interests (Bargon et al., 2020). Which relates to both the overall assessment of life (how well different people, social groups, and communities leadership live) and the assessment of various circumstances or sectors of life: environmental quality, human job quality, and family life quality (Zhang & Ma, 2020).

The life quality describes a resumption of the concept of happiness, but from another viewpoint. If happiness is the qualitative state that results from living one's own life, quality of life refers to both the external variables that shape human existence and the subjective

way in which each person evaluates his or her own life a state of contentment, pleasure, and fulfillment (Malekpour et al., 2014).

If happiness becomes associated with a primarily ethical viewpoint, a sociological-political approach is more closely linked to the quality of life, which strategies the individual would take to optimize his happiness (Milosevic et al., 2011).

The concept of quality of life was described based on these considerations such as the spiritual, economic, ecological, social, etc. conditions that guarantee the dignity and balance of life of biological, the continuous development and growth of the personality of humans (Verrocchio, 2006).

Frontline health care staff have been saving lives despite facing the workload and infection risk. Infected health care workers accounted for 29 % of all hospitalized COVID-19 cases in the early stages of the COVID-19 outbreak (Velavan, 2020).

As the world faces a shutdown or stagnation of everyday activities during pandemics diseases, people are urged to introduce social distancing to limit contacts with persons, thereby reducing the risk of new infections health professionals go to improve health status group (Chudasama et al., 2020).

These variables can contribute to various degrees of psychological stress, which can lead to feelings of helplessness and loneliness, or a sequence of dysphoric emotional states, such as stress, irritability, mental and physical tiredness, and despair (Chong et al., 2004).

Job overload and stress-related conditions make health workers and nurses more vulnerable to psychological trauma, raising the risk of contracting mental illnesses. (Tercan et al., 2020).

Through the 2003 epidemic of “severe acute respiratory syndrome,” 18% to 57% of healthcare professionals suffered severe

emotional disorders and psychological symptoms during and after the outbreak (Tam et al., 2004).

During the spread of the Middle East respiratory syndrome (MERS) in 2015, also caused by a coronavirus, depressive symptoms and anxiety were also identified among healthcare workers (Lee et al., 2018).

People at risk of infection include residents in areas of continued local spread, health workers caring for COVID-19 patients, and close connections with infected individuals, in accordance with the "Centers for Disease Control and Prevention" (CDC, 2020).

Health care workers have faced multiple clinical and non-clinical concerns, including the lack of personal protective equipment (PPE), the long-term periods of working with protective equipment that causes breathing difficulties without entry to toilets and placed food, resulting in physical and mental fatigue (Shoja et al., 2020).

COVID-19-related morbidity and mortality rates, the anxiety of taking the virus home to family members, and the reality of losing health workers to the sickness. These variables elevated healthcare workers' psychological burden to levels they have never experienced before (Ripp et al., 2020).

The change in hours of work, the inability to see household and more friends, the anxiety of spreading the virus to relatives, unhealthy worker environments in resource-constrained places, over-enthusiastic media reporting and projection of healthcare staff as COVID-19 combatant, and all of these contradictory societal stigmas contribute to the genesis of various mental illnesses. (Rehman et al., 2020).

Healthcare professionals faced this new virus, they have faced its potential impact on their psychological health, including depressive

symptoms, fear, insomnia, and grief, as well as the emergence of post-traumatic stress disorder (Chew et al., 2020).

Evidence from the past report indicates that this psychological impact influences the long- and short psychological health of healthcare professionals (Buselli et al., 2020).

On the other hand, the workload of the nurse is high, the "Coronavirus Disease 19 (COVID-19) pandemic" has had a severe effect on health care workers (HCWs) all over the world (Zhu et al., 2020).

Nurses play a vital role in providing health services by paying close attention to health and environmental quality, educating the staff, maintaining the health system, and enhancing the quality of life of patients. Nevertheless, challenges such as lack of staff numbers, stress, and heavy workloads are challenges of providing nurses' care to patients (Malekpour et al., 2014).

Nurses are the primary service providers in healthcare, health workers who are in close contact with infectious patients need to get their mental health checked and supervised regularly, particularly concerning stress, anxiety, and suicidal ideation, so that they can provide optimal quality of life and healthy mental health to have good care for patients. (Que et al., 2020).

Nurses are anxious because of the possibility that their friends and family will be sick, their failure to be with their family, and the guidelines on the social distance to be followed (Lai et al., 2020). Nurses may suffer from psychological problems through providing specific treatment to COVID-19 patients, through remembering someone who has died or died as a result of this disease, or by isolation or quarantine see Figure (1) (WHO, 2021)

Figure (1)Timeline of the key COVID-19 events in Iraq

Quality of life and mental health during the SARS pandemic crisis among nurses indicated that family and social help is associated with positive mental health impacts (Lau et al., 2005).

A higher incidence of anxiety, stress, and Post-traumatic stress disorder was observed in nurses and doctors participating in the care of COVID-19, with greater anxiety levels in nurses compared to doctors (Kang et al., 2020).

This explained the fact that nurses have longer working hours and greater interaction with patients, which can quickly lead to exhaustion and stress. Another study with a similar group found that the level of social support of doctors was strongly related to the success and quality of sleep and adversely linked to anxiety and stress (El-Zoghby et al., 2020).

Psychological disorder in nurse staff developed quickly: anxiety and fear occurred rapidly and increased in the early stages of the outbreak, but depression, psychophysical signs and symptoms, and post-traumatic stress disorder showed up later and lasted for a long period, leading to profound effects (Ruiz et al., 2020). Trauma is usually caused by being alone, operating in high-risk places, and having contact with infectious persons (Jemal et al., 2020).

1.2. Importance of study

COVID-19 pandemic leads to social stress and anxiety, the most common response to any distressing situation, COVID-19 pandemic has proved to be a deadly disease in a short time that has seriously damaged Iraq's health and disrupt all other aspects of life (Azize et al., 2020).

The emergence of COVID-19 placed unprecedented pressure on the healthcare system of the country and presented its medical and nursing workers with various challenges, potentially affecting their work performance and mental health and even putting their lives at risk (Labrague & De Los Santos, 2020).

Nurses are among the main receiver of health care facilities and may be subject to a wide variety of chemical, biological, psychosocial (i.e., stress, depression, anxiety, stress) and physical risks in their job environments (i.e., injuries, the transmission of infectious diseases, etc. (AlAteeq et al., 2020).

There is a lack in the number of hospitals, a lack of medical equipment and supplies, and a shortfall of nurses and doctors, and other medical staff. The Coronavirus Diseases 2019 (COVID-19) pandemic has become a prime problem in more of the world's nations including Iraq (Azize et al., 2020).

The lack of data about the impact of COVID-19 on psychological and mental health among healthcare workers and different mental and psychological responses of each individual from the health team during the COVID-19 outbreak (El-Zoghby et al., 2020).

Identifying healthcare professionals with a history of psychosocial risk factors, with more serious psychological problems also be provided with psychological care. Especially concerning the mental health of healthcare workers such as nurses (AlAteeq et al., 2020)

It is important to recognize secondary psychosocial variables that may produce tension, such as practitioners with chronic illnesses, living with older family members, or young children, among others (Labrague & De Los Santos, 2020). For healthcare practitioners coping with COVID-19, this period of psychiatric morbidity is very close to the timings of other pandemics such as SARS, MERS, and H1N1 (Wilder-Smith & Freedman, 2020).

Challenges of mental health faced by nurses have gradually been underlined by nurses and midwives themselves for the last few months, there is an urgent need for nurses to diagnose and treat mental health challenges through support, rehabilitation, and psychotherapeutic interventions when appropriate (ALAF et al., 2010).

The quality of life of nurses is compromised by such factors. It is noteworthy that nurses provide their patients with improved quality care because they are well and enjoy a desirable quality of life. It is also vital to pay careful concern to the mental health status of nurses and the quality

of life (Gholami et al., 2012). Therefore, the psychological status of the nurses during this troubled and destructive time must be researched and understood. (Kamal & Othman, 2020).

These factors may have influenced medical and nursing staff in Iraq, leading to mental health problems and Quality of life. However, the mental health status of Iraq nurses has not been formally assessed since the COVID-19 pandemic hits Iraq. Globally, there is a limited study that was studied the effect of mental health symptoms among nurses on quality of life during a pandemic. Therefore, the researcher seeks to assess the impact of COVID-19 on mental health and Quality of life among Iraq nurses during the COVID-19 pandemic. Such data is needed to inform healthcare administrators and policymakers to rapidly develop and implement mental health and Quality of life to nurses.

1.3. Statement of the Problem

The communicable diseases have a major effect on society people and lead to the death of some people, which affect others, the world is now undergoing by the COVID-19 who threatens the world. Because fear, anxiety, and unsureness of the spread of infections the public faced other challenge that could affect their psychological and mental health and well-being also restricting them in home, lifestyle changes, living status, jobs, closing of schools and universities. Nursing staff have been saving lives though facing the workload and infection risk. Emotional pain and anxiety for nurses may be cause by the COVID-19 pandemic or other public health incidents. Feeling nervous, uncertain, stressful, or powerless is always prevalent during any disease pandemic, particularly when you have little knowledge about the disease.

1.4. The Hypothesis

1.4.1. Null Hypothesis:

1.4.1. A. There is no significant impact of COVID-19 pandemic on mental health status for nurses.

1.4.1. B. There is no significant impact of the COVID-19 pandemic on quality of life for nurses.

1.4.2. Alternative Hypothesis:

1.4.2. A. There is a significant impact of the COVID-19 pandemic on mental health status for nurses.

1.4.2. B. There is a significant impact of the COVID-19 pandemic on quality of life for nurses.

1.5 Objectives of the study:

1.5.1. To assess the level of mental health status and quality of life for Nurses.

1.5.2. To find out the impact (prediction) of the COVID-19 pandemic on the mental health status and quality of life for Nurses.

1.5.3. To find out the relationship of mental health status on the quality of life for nurses.

1.5.4. To find out the relationship between the mental health status and quality of life with demographic characteristics for nurses such as (gender, age, marital status, location, education level, have children, No. of children, years of work in the ministry of health, years of experience in the nursing field, and interest in nursing work)

1.6. Definition of Terms

1.6.1. Mental Health

1.6.1. A. Theoretical Definition:

Mental health: a state of well-being in which every individual realizes his or her potential, can cope with the normal stresses of life, work productively and fruitfully, and contribute to her or his community (Buselli et al., 2020).

1.6.1. B. Operational Definition:

Mental health: Is the mental state of the nurses measured by DASS 21 during COVID-19 pandemic that affects their mental health

1.6.2. Quality of Life

1.6.2. A. Theoretical Definition:

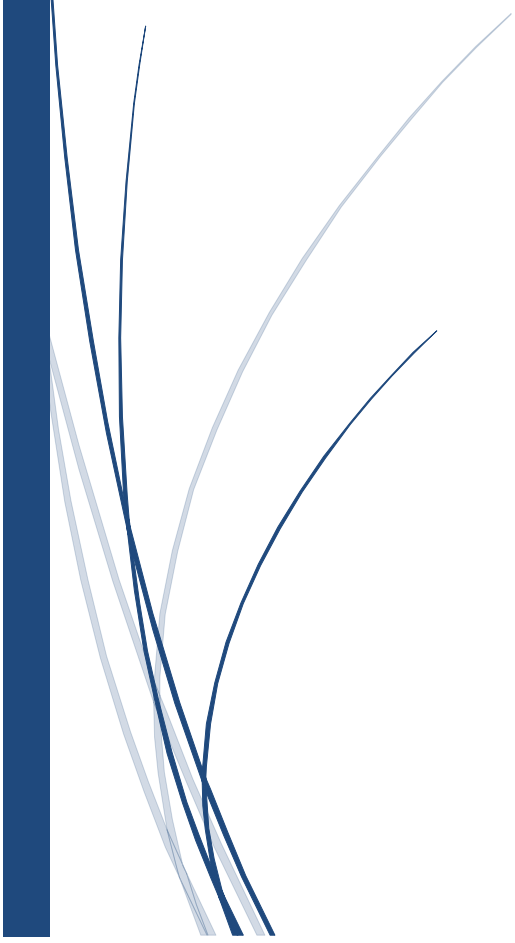
Quality of Life: refers to individuals' perception of their position in life in the context of the culture and value systems in which they live, and in relation to their goals, expectation, standards, and concerns (Gholami et al., 2012).

1.6.2. B. Operational Definition:

Quality of Life: These are aspects of the lives of nurses during the COVID-19 pandemic, which is measured by the quality of life during COVID-19 scale.

Chapter Two

Review of Literature



Chapter Two

Review of Literature

The researcher was looked through the relevant literature and past studies to get a better understanding of the subject of the theoretical framework of the study, coronavirus pandemics, mental health, and quality of life.

2.1. Theoretical Framework

2.1.1 .Theoretical Framework of the Study

The theoretical foundation for this study was Professor Lazarus' stress, coping, and adaptation theory. The focus of this hypothesis is placed on how people react to stressful situations. The theory includes major ideas such as stress, coping, adaptation, stressors, the person-environment relationship, and assessment (Folkman et al., 1988).

An individuals' psychological response to stress, such as anxiety and depression, is also considered by the theory. Although based on behavioral science, the theory of stress, coping, and adaptation is used as a theoretical framework by many nursing researchers around the world. As a result, the researcher has used this idea to figure out how the nurses coped (McEwen, 2014).

The idea may also draw a link between notions such as stress, anxiety, and coping mechanisms, and nurses' psychological responses to their perceived stress levels. (Lazarus, 1998).

2.1.2 .Theory's Beginning

In nursing, both research and practice are guided by theories. The theory of stress, coping, and adaptation, proposed by Lazarus and Folkman in 1984, is applied as a foundation for the current research. In the 1950s, Professor Lazarus started to research psychological stress and coping.

Lazarus' interest in psychological stress developed during World War II, when the military required personnel who could deal with stressful situations (Lazarus, 1998). They also wanted to teach individuals how to deal with stress during a crisis. Lazarus and Erickson determined that stressful situations generated a variety of responses in people in their first stress experiment (Biggs et al., 2017). They went on to explain that the differences in responses related to individuals' differences in motivational and cognitive factors. To develop the theory of stress, coping, and adaptation, Lazarus and his colleagues undertook a series of investigations to define appraisal and coping (Lazarus, 1998).

2.1.3 .Theoretical Propositions of Major Importance

The notion of stress, coping, and adaptation provides a framework for analyzing how people cope with stressful situations. The idea is around a person's psychological reaction to stress. Stress the person-environment interaction, assessment, coping, and adaptation are all significant themes in the theory (Lazarus & Folkman, 1984) .

Stress, as described is a relationship between an individual and the environment that the individual believes is a condition that they cannot manage with their current resources. This failure to cope in a stressful setting might have a negative impact on one's health (Folkman et al., 1988). Rather than focusing on either the individual or the environment, the emphasis is on the relationship between the two. In the person-environment relationship, personality, values, beliefs, commitments, social networks, social supports, sociocultural influences, and life experiences all play a part (Biggs et al., 2017).

In their theory, they used the term cognitive appraisal to describe the processes through which humans are analyzed and reacted to stressful situations. Primary and secondary cognitive appraisals are the two types of

cognitive appraisals. Individuals' primary appraisal is their assessment of the circumstance and its importance to their well-being (Lazarus & Folkman, 1984). Primary appraisal refers to the extent to which the person evaluates the situation as stressful. If the person perceives a situation as non-stressful, the need to use coping that does not occur (Monatet al., 2007). Stress is divided into three categories: harm, threat, and challenge. Harm is described as psychological harm that has already occurred, as well as a threat to one's mental health is defined as the possibility of future harm, and the challenge is defined as the confidence of coping can overcome stress (Sceinces, 2002).

The person's reaction to the stressful event is referred to as secondary appraisal. When a person views a situation, the secondary appraisal comes in and incorporates coping mechanisms, which can be stressful (Groomes et al., 2002). In secondary appraisal, the individual evaluates the many coping mechanisms available to avoid injury. Accepting the event, learning more about what happened, or avoiding a negative reaction to the situation are some of the options available. Demand is aroused by the assessed stress, which leads to coping. Coping is a constant process in which individuals deal with a variety of challenges (Lazarus, 1998).

Coping is characterized by three characteristics:

1. Coping is a technique.
2. Coping is situational.
3. There are no preconceived notions in coping.

In the person-environment interaction, coping, as a process-oriented approach, emphasizes change over permanence. Coping as contextual means that coping efforts are shaped by both the person and the situation. Furthermore, they make no assumptions about what constitutes effective or ineffective coping or how to succeed; rather, they focus on a person's effort

to cope (Lazarus, 1998). This coping method stresses how person's ideas and actions change while they are confronted with stressful conditions, as well as how they alter once the experience is over (Folkman et al., 1988).

The two styles of coping, also known as coping functions, are problem-focused and emotion-focused coping. The person deals with the problem that is creating the stress in problem-focused coping, and In emotion-focused coping, a person modulates their emotions (Monatet al., 2007). The individual who uses problem-focused coping attempts to change or adjust the stressful person-environment relationship. Emotion-focused coping, on the other hand, allows a person to adjust or modify their reaction to a stressful situation (Groomes et al ., 2002). During the development of the coping tool, parts for problem-focused and emotion-focused coping were created (The Ways of Coping). Problem-focused coping includes confronted coping, planned problem solving, seeking social assistance, and positive reappraisal. Emotion-focused coping includes distancing, admitting responsibility, and escaping avoidance. The autonomy item on how a person copes with a stressful event is the self-control that does not meet the requirements for problem-focused and emotion-focused coping (Abel, 2002).

2.1.4. Application of Theory in Literature

Many nursing studies around the world employ this theory as a theoretical foundation. Roy's adaptation and Neuman's systems model are both based on this theory (Sceinces, 2002).

Mackay & Pakenham, 2011 Lazarus and Folkman's hypothesis of stress coping, and adaptation was validated among carers of mentally ill patients in Australia. The outcomes of the study validated the assumptions of the stress and coping model by identifying risk factors related to mental health caregiving. Researchers examining stress, coping, and related difficulties

among nurses have used the stress theory, coping, and adaptation as a theoretical framework, according to evidence.

2.1.5. Rationale for Theory Application

Despite the fact that Lazarus and Folkman's theory of stress, coping, and adaptation has been applied and proven in research assessing stress, stressors, and coping among nurses all over the world, few studies have been conducted among Iraqi nursing personnel. Because the tool used to measure coping among nurses in the study covered coping domains, the theory of stress, coping, and adaptation was adopted (Monatet al., 2007)..

2.2. Nursing and Nurse's Background

Nurses are vital to the healthcare system. A nurse serves as a link between the doctor and the patient. The nurse is a caring, a sympathetic, and non-judgmental person who is yet firm and grounded (Hsiao & Lu, 2015). He or she is likely one of the most significant but underappreciated people in a patient's life. A white cap and uniform are likely to come to mind when most people think of a nurse (Kim & Choi, 2016). Today, male and female nurses, as well as many other healthcare workers, wear brightly colored scrubs instead of white uniforms. Nurses are highly trained and well-educated nursing professionals who are not confined to bedside care and medicine administration. These demands and expectations can differ from one profession to another. Nurses, for example, are the patient's primary point of contact with the doctor (Hsiao & Lu, 2015). Nurses undertake patient assessments such as vital sign monitoring, IV insertion, blood drawing, and medication administration. The head nurse, often known as the nursing supervisor, is in charge of creating schedules, assigning work to the nursing staff, and ensuring that nurses are properly trained. Nursing supervisors must ensure that supplies are fully stocked and that shift work is finished in order to prepare for the next group of nurses.

There are many different types of nursing positions available; a nurse should not become stuck in one (Labrague & De Los Santos, 2020).

In honor of Florence Nightingale's 200th birthday, the World Health Organization designated 2020 as the (Year of the Nurse and Midwife). Varied organizations, professional associations, health care systems, and other entities around the world were ready to affirm this topic and honor the many responsibilities and contributions of nurses in improving people's health and welfare in every country (Brown, 2016). It was utterly unforeseen that this year would also be marked by an international health crisis a pandemic that has now affected every level of society. The coronavirus (COVID-19) epidemic is currently wreaking havoc on the entire world. In this situation, nurses play a crucial role. The nursing profession has played a critical role in saving lives and reducing suffering by stepping in during times of crisis and offering care and innovation. This year's COVID-19 will be no different (Xing et al., 2020).

The contributions of nursing to improving public health during times of crisis can be traced back to the time of Nightingale, the founder of modern nursing. Throughout the horrific influenza epidemic of 1918, nurses remained resolute in modeling the ideas of Florence Nightingale, a firm believer in clean handwashing, proper sanitation, and solid preventive measures (Nickol & Kindrachuk, 2019). As one of the few treatment options available at the time, members of the visiting nurses' associations conducted house visits to patients providing crucial nursing care. Nurses were cautious in stressing the benefits of being exposed to fresh air, practicing proper hand cleanliness, and maintaining social isolation while visiting patients at home (Xing et al., 2020).

In the decades afterward, nurses have consistently answered the call, acting as front-line providers in some of the world's most notable infectious

disease outbreaks, such as H1N1 Swine Flu, Ebola, severe acute respiratory syndrome (SARS), and Middle East respiratory syndrome (MERS) (Xing et al., 2020). Nurses from all over the world have stepped up to fight the deadly spread of COVID-19, a virulent global outbreak that has led to an unprecedented number of cases and deaths, much like they have in previous illness outbreaks (LAW, 2020).

Nurses are at the forefront, working around the clock to protect patients' and the public's health and well-being, from providing direct care to ill hospitalized patients to managing large-scale public health activities. Nurses are now using evidence-based public health approaches to prevent disease and care for some of the world's sickest hospitalized patients in acute care settings. While public health nurses have long been praised for their services in times of public health emergency, they are now using evidence-based public health approaches to prevent disease and care for some of the world's sickest hospitalized patients in acute care settings (Cotrin et al., 2020).

Today's response teams are led by nurses with experience and competence in areas such as catastrophe planning, predictive modeling, hospital, and field operations, and human resource management, to name a few. People are quite proud of nurses worldwide for providing services throughout the current pandemic as nurses with extensive healthcare knowledge (Mekonen et al., 2021). Additionally, while nurses are the most valuable asset during this crisis, they are not immune to unexpected consequences such as viral exposure or physical and emotional stress. Efforts are being made to ensure that all nurses have the appropriate personal protective equipment (PPE) to care for patients while also protecting themselves (Cui et al., 2020). Even with the great advancements in health care and technology, any progress in efficiently treating the

COVID-19 virus would be impossible without the competent and loving care of nurses. Nurses will always be on the front lines of environmental protection (Tercan et al., 2020).

2.3. Coronavirus Pandemics

2.3.1 .Coronavirus Pandemics History

The globe has experienced two coronavirus pandemics in the last 20 years, both of which are characterized by highly infectious respiratory illnesses: SARS the severe acute respiratory syndrome coronavirus, and MERS the Middle East respiratory syndrome coronavirus. The 2003 SARS pandemic had a global impact, with not just significant mortality but also psychological implications for healthcare staff who treated patients (Adhanom, 2020). A large number of healthcare personnel are infected with the virus. This occurrence, on the other hand, offered a better understanding of how a pandemic epidemic would affect the mental health of healthcare staff treating patients (Kim & Choi, 2016).

2.3.2 .COVID-19 Pandemic

COVID-19 is most usually transmitted through close contact. When patients with COVID-19 cough, sneeze, sing, talk, or breathe, they produce respiratory droplets. People who are physically near (within 6 feet) or have direct contact with that person are at the greatest risk of infection (CDC, 2020). The size of these droplets can range from large (some of which are visible) to microscopic (some of which are not visible). When little droplets in the airstream dry quickly, they can become particles. Infections are disseminated mostly by respiratory droplets when a person comes into close contact with someone who has COVID-19 (Wilder-Smith & Freedman, 2020).

Respiratory droplets can cause sickness when inhaled or deposited on mucous membranes such as those that line the inside of the nose and

mouth. As they go further away from the person with COVID-19, the concentration of respiratory droplets decreases. Larger droplets fall out of the air due to gravity. Smaller drips and particles spread in the air (Heymann & Shindo, 2020).

As time passes, the number of infectious viruses in respiratory droplets decreases. In some circumstances, COVID-19 is transmitted by airborne transmission. Some infections are transmitted by microscopic droplets and particles of viruses that can linger in the air for minutes to hours (CDC, 2020). These viruses have the potential to infect people who are more than 6 feet away from an infected person or who enter the area after the sick person has departed. This is referred to as airborne transmission, and it is a frequent route for diseases like tuberculosis, measles, and chicken pox to spread. There is evidence that those who were infected with COVID-19 had an effect on others who were not (Azize et al., 2020). These transmissions took place in confined locations with poor ventilation. When the afflicted person was singing or exercising, for example, he or she may have had difficulty breathing. According to scientists, the amount of infected tiny droplets and particles produced by COVID-19 patients grew concentrated enough under these conditions to transfer the virus to other people (LAW, 2020).

2.3.3. Protect self and others

The easiest approach to avoid getting sick is to avoid coming into contact with this virus. The individual can act to slow the spread of the disease.

1 .If at all feasible, keep a distance of at least 6 feet between yourself and others. This is critical in keeping COVID-19 from spreading.

2 .When you are with other people, wear a mask that covers your mouth and nose. This reduces the possibility of infection through close contact and airborne transfer.

3 .Hands wash often with soap and water. If you do not have access to soap or water, use a hand sanitizer that has at least 60% alcohol.

4. Avoid overcrowding interior rooms and promote proper ventilation by bringing in as much outside air as feasible.

5. When you are sick, stay at home and isolate yourself from others.

6 .Clean and disinfect regularly touched surfaces.

Pandemics can be dangerous, especially when you isolated from others. It is critical to establish social relationships and take care of one's mental health throughout this period (Velavan, health, & 2020).

2.4 .Health and Mental Health

2.4.1 .Historical Perspective

Three dominant ways of health were conceived in human history. Most of history is dominated by the pathogenic approach to health. This approach considers the lack of disease and disability for health (behavior, 2010). The salutogenic approach, on the other hand, may be traced back to Greek and Roman works, although it was not popularized in mainstream theoretical debate until the twentieth century (Graeser, 2011). This concept of health considers Rather than taking a pathogenic approach, conceive of health as positive states of capability and functioning in thinking, feeling, and doing (Batt-Rawden, 2010).

The complete state model is the third approach, which is the most current and largely accepted in contemporary literature. This is the most comprehensive approach, as defined by the World Health Organization: (health is a condition of complete physical, mental, and social well-being, not only the absence of sickness or disability). It encompasses both the

presence of positive abilities and the absence of illness or disorder (Cook et al., 2019) . In terms of mental health, the total state approach appears to be the most feasible. In contrast to pathogenic and salutogenic approaches, this study takes a comprehensive approach to health. In this study, mental health is defined as a condition of optimal physical, cognitive, and emotional functioning, not just the absence of psychopathology (AlAteeq et al., 2020)

Mental health and mental disorders are different areas of research that have a variety of policy consequences in addition to their particular subject matter. Similarly, these frameworks take various approaches to separate health from illness and sane from insanity (WHO, 1993).

Mental health is a nebulous phrase whose meaning varies depending on the context. In reality, the World Health Organization defines mental health as a condition of high psychological well-being, self-esteem, and the ability to maintain social relationships, not only the absence of disease (WHO, 2014) .

2.4.2 Mental health: Global Problem

Psychological well-being is another term for mental wellness the foundation for every individual's social interaction. Naturalistic variables such as an individual's genetic and psychological composition, as well as socio-environmental situations, can cause mental illness (WHO, 2014).

Mental health concerns limiting people's ability to participate in everyday social activities and, in extreme circumstances, can lead to impaired functioning. In some countries, the economic costs of mental disorders exceed 4% of gross domestic product, additionally to the psychological and societal outlays linked to mental health issues (Forti et al., 2014) .

When looking at spending on mental health issues from the standpoint of income disparities between countries, there are significant differences. Even when their relative spending on physical health issues is taken into consideration, In comparison to developed countries, developing countries tend to spend less on mental health issues (Patana, 2014). It is understandable to some extent, given that governments are more likely to prioritize situations that are deemed emergent due to financial constraints (Allison, 2015).

When compared to the scale of the impact that mental illnesses have on public health, there is still a severe shortage of resources. Mental health problems are a major cause of disease all over the world (Bourne, 2010). Mental health concerns are more equitably dispersed across the world's many geographical and economic regions than most other health problems. It is estimated that 26.4 percent of adults in the United States have a mental disorder, more equitably dispersed across the world's many geographical and economic regions (Forti et al., 2014).

2.4.3 .Mental health as a human right

It's not merely a technical phenomenon when it comes to health; influenced by social, economic, and cultural factors. To achieve successful results, a healthy environment, a stable economy, and peaceful living must accompany health-related behaviors (Tam et al., 2004). As a result, it is not only the responsibility of individuals to have the right to preserve their health, but others also have the right to provide amenities that will protect them from negative health outcomes. As a result, in 1946, the World Health Organization defined physical and mental health to be a fundamental human right (Sharp, 2018).

The structural dimensions that directly comprise the human rights spectrum are particularly sensitive to mental health. The improvement of

mental health is linked to sufficient living standards and in organizations and communities, there is harmony. Violations of basic human rights, as well as insecurity, anxiety, and prejudice, have a direct impact on the prevalence of mental health concerns in people (GOSTIN, 2001). As a result, to treat all mental health issues, it is necessary to apply an international human rights framework. International human rights instruments serve as powerful guidance for addressing population mental health. The right to physical and mental health is recognized as a basic human right (Article 12). The committee In developing the aforementioned article, the committee on economic, social, and cultural rights recognizes unequal access to mental health care and emphasizes the need for adequate funding for inclusive health initiatives (International Covenant on Economic, Social and Cultural Rights, 1966).

These issues combine to provide a significant issue for national governments in terms of dealing with the people's mental well-being legally binding tools are used in this context like the international covenant on economic, social, and cultural rights serve as leading recommendations to assist countries in developing their mental health action plans (Moyn, 2014). The international covenant on civil and political rights, as well as the united nations general assembly, the international bill of rights, and the universal declaration of human rights, all address the fundamental determinants of mental health (Brown, 2016) .

Article 25 of the universal declaration of human rights states (Everyone has the right to a standard of living for the health and well-being of himself and his family, including food, clothing, housing, and medical care and necessary social services and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control) (Moyn, 2014).

The aforementioned article of the universal declaration of human rights is a virtual interpretation of the World Health Organization's definition of mental health. Necessities of life must be given, and individuals must be protected from structural hurdles without discrimination to develop their skills and contribute positively to society (Moyn, 2014).

Furthermore, the International Covenant on Economic, Social, and Cultural Rights, as well as the International Covenant on Civil and Political Rights, both contain many civil, political, economic, social, and cultural rights that, when taken together, provide a cover for a mentally healthy population to grow beneath (Glendon, 1998). The right to franchise, the right to associate and gather, the right to education, the right to information, and the right to fair and acceptable working conditions are among these rights. Denial of fundamental rights results in vulnerability to mental health disorders (International Covenant on Economic, Social and Cultural Rights, 1966).

2.4.4 .Mental Health in Muslims

The Muslim population is estimated to be around two billion people globally or roughly 23% of the total global population. Asia is home to the greatest number of Muslims (62 %). Iraq, Turkey, Iran, Bangladesh, India, Pakistan, and Indonesia are all part of the Pacific region (Deuraseh et al., 2005). Muslims come from a variety of countries and ethnic backgrounds. Their ethnic cultural values and beliefs are diverse, but they are generally seen as a monolithic group, prone to negative stereotypes and substantial structural and interpersonal prejudice, stereotypes and significant structural and interpersonal discrimination (Skinner, 2010). Before discussing mental health in Muslims and the interaction of culture, religion, and mental health stigma, cultural conceptions of health and mental health in Islam must

clarify. There are substantial commonalities and contextual variances in Muslim communities' beliefs and practices towards health and illness. The concept is a fundamental and vital doctrine in Islam (Haque, 2004). Allah (the Arabic name for God, Allah, is used by Muslims all across the world) is the cause of everything, even illness. Sickness or disease, according to one Islamic prophet, is one means to connect with Allah, thus it is not viewed as a problem but rather than as a threat on the physical, emotional, mental, and spiritual dimensions, it is an event, a physiological function that serves to cleanse, purify, and balance us (Al-Issa, 2000)

This fundamental belief is repeated in many studies of Muslim people's attitudes toward mental and physical illness, that Allah is the ultimate doctor. He is the one who has ended the sickness(Hamidi & Bagherzadeh, 2010). He is the one who brought the cure to a halt. Explained mental disease and health issues might view as a test from God or even a punishment. People in Islam have a great belief in Kader (destiny). This entails a positive acceptance of Allah's will as well as a higher level of optimism towards healing (Deuraseh et al., 2005).

2.4.5 .Approaches to Mental Health

Mental disorder is defined by the DSM5 as a clinically diagnosable behavioral or psychological syndrome or pattern that is linked to current suffering or disability, or that may lead to diminished functioning. It was emphasized that such a disease or pattern is influenced by more than just cultural or environmental variables. Whatever the cause, it should at the very least show signs of malfunction that may be detected in clinical settings (Mei et al., 2020) . Individual and societal conflict, as well as deviant actions, are not mental diseases. Only if these actions appear as a symptom of an individual's dysfunction can they be classified as mental diseases. In contrast to the DSM, it comes to mental illness, it's common to

think of it in terms of deviant behavior. which can be viewed as deviations from social norms rather than signs of intrapsychic problems (das Nair & Fairbank, 2012). As a result, persons who are labelled mentally sick are actually social outcasts. While all societies have some degree of deviance, (mentally ill) persons are those diagnosed as such by mental health experts, family, friends, and others. Although deviant behaviors are not included in the DSM's classification of mental illnesses, several of the diseases listed there feature deviant behaviors rather than intrapsychic abnormalities. These include substance abuse, antisocial personality disorder, and behavior disorder, among others. Sociologists are more interested in the mechanisms that lead to the classification of particular actions as a mental disease than anything else (Mei et al., 2020).

It is a difficult challenge to come up with an objective standard to assess mental health and sickness, given the disputes and anomalies that surround them. In this case, as well, there is a significant distinction between sociological and clinical approaches. Sociologists are more interested in the societal processes and structural causes of mental illnesses than in the people who visit clinics (Kastrup & Ramos, 2006). Their aversion to researching persons in clinical settings stems from the belief that these people do not represent all people suffering from mental illnesses. It is thought that the majority of persons who suffer from People with mental illnesses do not seek professional help care or seek alternative treatment options such as religious settings (Szaflarski, 2014).

Mental health approaches are divided into four categories.

1. Biological approaches.
2. Psychological approaches.
3. Psychiatric-epidemiological approaches.
4. Sociological approaches.

A summary of each approach is below :

2.4.5.1 . Biological Approaches

Biological approaches treat for mental illnesses like any other disease in which a physical defect causes an apparent dysfunction. The irregularity in psychiatric diseases is thought to be related to the brain. As a result, the goal of these techniques is to comprehend the link between abnormal brain activities and psychiatric diseases (Chalmers et al., 2012). Several hypotheses claim that mental diseases are caused by genetic, neurological, or physiological factors (Szaflarski, 2014). These ideologies view mental health as an illness that can be treated with medicine instead of psychotherapy. Recent advances in neuroscience have confirmed biological or organic techniques in the study of the important linkages between brain anatomy and human behavior (Scheid, 1999).

2.4.5.2 .Psychological approaches

Individuals, rather than organizations, are the focus of psychologists. They're interested in the factors that influence deviant ideas and behaviors on a personal level. Traditionally, psychology has been confined to function within certain theoretical frameworks (Thoits, 1999). Nonetheless, it has lately been proposed that the scope of the problem should be expanded. To help patients feel better, psychologists are now researching therapeutic treatments. Stress that the physiological and genetic foundations of psychiatric illnesses are thoroughly understood. Likewise, social factors that influence mental health difficulties are considered as both predictors and determinants of mental diseases (Scheid, 1999). The biological underpinnings of mental illness are not ignored by psychological conceptions of abnormality. Nonetheless, psychological models place far less emphasis on biological aspects when it comes to treatment. Because of

their various focuses, psychological theories that aim to explain anomalous behavior might be classified (Chalmers et al., 2012).

2.4.5.3 .Psychiatric epidemiological approaches

Approaches psychiatric epidemiological is a subset of the epidemiology of medical, as the name implies. It is concerned with the frequency and patterns of mental illnesses, as well as their correlations, in various communities (Scanlan, 2015). The study of the impact of social circumstances and socio-demographic characteristics such as age, gender, social class, and occupation on mental health outcomes is known as psychiatric epidemiology. This area fits under the domains of both sociology and psychiatry due to its areas of focus. Psychiatric epidemiology frequently incorporates survey research techniques, which are typically attributed to sociology, to examine huge populations (Thoits, 1999). While researching large groups of people is necessary for generalizability and policy, it is a difficult challenge when it comes to mental illness. Non-clinicians who ask respondents about their symptoms frequently conduct epidemiological surveys. Due to a lack of safeguards and remedial processes that are only available in clinical settings, diagnostic errors are more likely in such situations (Scanlan, 2015). To make an accurate diagnosis, professionals must also be persuaded to interview a sufficient sample of the community. As a result, epidemiologists are forced to rely on non-clinical interviews conducted in a variety of settings (Dalgleish & Black, 2020).

2.4.5.4 .Sociological approach

Biological and psychological approaches to mental illness are combined in the sociology of mental health and illness. However, in terms of theories and methodological approach, it is separate. Mental disorders and mental wellness, according to sociological perspectives, are products of

social life. In general, there are two types of sociological threads in mental health and illness (Scanlan, 2015). Some techniques concentrate on social issues such as family problems, traumatic life events, financial hardship, and social expectations. It may have an impact on people's mental health. Other approaches concentrate on the role of cultural factors in the definition of mental illnesses and responses to mental health issues. When it comes to mental health and illness, it is critical to track the frequency of stressful events in people's life (Wells et al., 2003). Memories of a troubled childhood, the death of a loved one, a major threat, the dissolution of intimate relationships, and the loss of a job are all examples of such experiences (Dalgleish & Black, 2020).

2.4.6 .Mental Health Dimensions

Mental health issues include a wide spectrum of maladies, ranging from little stress in everyday situations to significant mental illnesses that impair daily functioning (Ahadi et al., 2010). Distress, melancholy, Anxiety, and eating problems are so prevalent in today's society that they often go unnoticed (Asztalos & Bourdeaudhuij, 2010). Neurotic symptoms, such as extreme sorts of emotional experiences, and psychotic symptoms, such as apparent conditions altering an individual's views of reality, are more likely to be assessed by patients and the general public (Lauder, et al., 2007). Even though symptoms of specific mental health conditions are often similar, patient behaviors might vary significantly from case to case, making It is more difficult to label someone as a mental health sufferer. Nurses' opinions of moderate mental health problems such as stress, anxiety, and depression are vital to understanding since they can have a substantial impact on nurses' mental health (Headey et al., 1993).

2.4.6.1. Anxiety

2.4.6.1.1. An Introductory Overview of Anxiety

Anxiety is a chronic disorder characterized by a persistent and excessive feeling of fear, as well as bodily symptoms such as perspiration, palpitations, and stress. Anxiety is a blanket word encompassing a variety of disorders that produce anxiety, fear, apprehension, and concern (Headey et al., 1993). These illnesses affect how we feel and act, and they can even cause physical symptoms. Mild anxiety is a natural response to everyday stress, but severe anxiety can be crippling and have a considerable impact on one's daily life. Before facing something tough, such as a test, examination, or interview, people frequently experience a general mood of concern or fear. These emotions are simply explained and accepted as normal (Drissi et al., 2020). Anxiety is considered an issue when symptoms make it difficult for a person to sleep or operate normally, when a reaction is out of proportion to what one may expect in a particular situation, this can happen (Ahadi et al., 2010).

2.4.6.1.2. Normal and pathological responses to anxiety

Anxiety is described as the fear of injury or disaster in the future, coupled with a feeling of dysphoria (unpleasantness) and/or bodily tension symptoms. Internal or outward harm may be the goal of the anticipated harm. It is a warning signal that can alert a person to impending danger and allow them to take the required precautions to deal with the threat (Videbeck, 2014). It's vital to understand anxiety as a natural sensation or emotional state that arises in response to specific circumstances, and that it's a common response to a variety of stressful events. This shows that a small degree of anxiety may be advantageous in dealing with daily responsibilities (Lauder, et al., 2007). Only when it reaches a specific level of intensity or when worry interferes with a person's ability to adapt, it

becomes a pathological reaction, generating substantial discomfort and symptoms that damage the individual physiologically, psychologically, and behaviourally (Manfredini et al., 2005).

2.4.6.1.3. Signs and symptoms of anxiety disorder

Anxiety disorders are a collection of illnesses marked by excessive concern, anxiety, tension, or arousal that produces substantial discomfort or a clinically significant decline in the individual's ability to function (Manfredini et al., 2005). Furthermore, Anxiety sufferers exhibit a wide spectrum of physical symptoms. Many of these sensations are similar to those felt by someone unwell, has a heart attack, or has a stroke, causing anxiety to increase even higher (Videbeck, 2014).

2.4.6.1.4. Risk factors

Although the exact source of anxiety and concern is unknown, the following conditions and events have been observed to raise a person's risk of anxiety:

1. Anxiety's past.
2. Anxiety runs in the family.
3. In chronic conditions, there is a lack of pain control.
4. Physical disability is severe.
5. Family support is lacking.
6. Living with more ailments (Videbeck, 2014).

2.4.6.1.5. Anxiety Levels

Depending on the severity and duration of anxiety, as well as how well a person manages it, anxiety can be both beneficial and harmful. Mild, moderate, severe, and panic anxiety are the four types of anxiety. Each level has an impact on a person's physiology and emotions (Videbeck, 2014). Mild anxiety is a feeling that something is not quite right and has to address. Sensory stimulation helps people focus their attention to learn,

solve issues, think, act, feel, and protect themselves. People with mild anxiety are more likely to adjust or engage in goal-oriented activities. For example, it allows pupils to concentrate on studying for a test. Moderate anxiety is characterized by the unsettling sensation that something is seriously wrong; the individual becomes uneasy or disturbed (Ren et al., 2021). With the help of others, a person with moderate anxiety may still absorb information, solve issues, and learn new things (Chandavarkar et al., 2007). He or she has trouble concentrating on his or her own but led back to the issue. As a person's anxiety and panic levels rise, more primal survival capabilities take over, defensive responses emerge, and cognitive abilities plummet (Drissi et al., 2020).

2.4.6.2. Depression

Depression is a mental illness characterized by a drop-in mood, interest, and energy. It may be considered the polar opposite of mania. Depressive disorders are a group of illnesses characterized by a depressed mood and a loss of interest in formerly enjoyable activities. The symptoms might cause a person's life to be seriously disrupted (Videbeck, 2014). Depression wreaks havoc on you every day your quality of life suffers as a result of your schedule. Depression is another common complication of chronic illnesses. Untreated depression can lead to physical handicap and treatment resistance, as well as affecting the entire family's mental and physical performance, or even death. Depression is a major contribution to the global burden of disease and affects people from all walks of life (Ahadi et al., 2010).

Depression is estimated to afflict 350 million people worldwide today. The World Mental Health Survey, which was done in 17 countries, according to the study, approximately one out of every 20 people had experienced depression in the previous year as a result of these variables;

depression is the leading cause of disability worldwide in terms of total years lost owing to disability. Depression manifests itself in a depressed mood, a loss of interest or pleasure, decreased energy, feelings of guilt or poor self-worth, disturbed sleep or appetite, and impaired attention (Suryavanshi et al., 2020).

2.4.6.3. Stress

2.4.6.3.1. An Introductory Overview of Stress

Until the 1990s, research on nurse stress had primarily focused on nurses, with MHNs being virtually ignored. MHN's are subjected to different stressors than nurses, according to several publications. Psychiatric patients, for example, can be dangerous and unpredictable, and the interpersonal ties that are so important in psychiatric nursing can make the job a potential emotional minefield (Wheeler, 1997). The closing of large mental hospitals and the shift of care to community settings presented new issues for MHN's in the 1990s. Many types of research on the stress of MHNs are narrow in scope. As a result, three major components of the stress response have been investigated: sources of stress, coping mechanisms, and stress manifestations (Sutherland & Cooper, 1990).

2.4.6.3. Stress, stressors, and distress conceptualization

stress is unclear in everyday usage, and it is critical to explain any ambiguity here. When stress is considered because of bad occurrences, it is thought to be a source of psychological issues. It can also relate to an individual's subjective experience (Sutherland & Cooper, 1990). Stress is a term used by psychologists to describe major life events or other environmental sources of emotional distress. The terms stress reaction and stress response are used to describe the emotional effects of stress or pressures (Wheaton, 2010). Mental disorders and psychological distress are viewed in this study as maladaptive reactions chronic stressors, on the other

hand, are seen as environmental factors that produce distress or mental illness. Stressors can cause distress due to conceptual distinctions. It can be observed that the stressors' ability to induce stress is dependent on the context in which they act (Sutherland & Cooper, 1990).

2.4.6.3.3. Stress theory's history and developments

Hans Selye invented the term stress in the scientific literature in the 1930s. He used the phrase to describe anything that causes bodily attrition. He used animals in his tests and identified stresses such as significant temperature changes, overcrowding, and electric shocks. He said that these stressors harmed the body's defense mechanisms and that as a result, the animals were unable to withstand sickness or infection when exposed to it (Selye, 2013).

Selye's biological stress model is divided into four stages:

- Stressors: a set of events or circumstances that might make a person feel threatened or insulted.
- Conditioning factors can alter how stresses affect the organism.
- The general adaption syndrome is a stress condition.
- In the form of distress, these responses might be adaptive or maladaptive.

Selye concentrated on the third stage, which became known as the General Adaptation Syndrome, of these four stages. The General Adaptation Syndrome identified three stages that explain how people react to stress. The body responds to perceive danger in the first step, referred to as the at the alarm stage, the body releases chemicals like adrenaline, noradrenaline, and cortisol in response to a perceived threat (stressor) (Wheaton, 2010). The hormones allow the person to perform activities that would be impossible under normal circumstances. The body directs its resources to rejuvenate injured muscles and produce fewer hormones in the second

stage. After the stress has been dealt with, the resistance stage is referred to as (Holmes, 1967). Even if the stressor is still there, the body remains watchful to act against it, though it is likely that the response will be less severe than in the alert stage. In the third stage, the body's adaptive energy has been depleted, and it is no longer able to respond to the stressor. referred to as weariness. Individuals are more likely to experience stress overload in these situations, which can lead to health concerns if not addressed immediately (Selye, 2013).

To summarize, the biological model of stress provides a holistic picture of stress, encompassing everything from problem perception to stress response and effects. In this paradigm, style distinguished stress from distress and other behavioral responses. Because it establishes a relationship between physiological responses to stress and the use of coping methods, this paradigm is still relevant today. Concerns about the consequences of stress on humans arose once the link between continuous disease and stress was in a laboratory context, it has been demonstrated in animals (Selye, 2013).

Various explanations of stress theories suggested that coping techniques regulate the severity of the link between stress and mental illness symptoms (Lazarus & Folkman, 1984). Humans are not passive beings; thus, they react to stressors in a variety of ways to regulate and lessen their detrimental effects on one's health and well-being. The phrase coping resources have been used to describe the spectrum of abilities that people can utilize to deal with pressures. (Groomes et al., 2002). When people are confronted with stressful events, social support networks are frequently considered as one of the most efficient coping techniques accessible. The material, cognitive, and emotional help that persons in close social proximity can provide to individuals is referred to as social support (Thoits,

1999). Furthermore, persons who feel competent to handle stressors or who have a broad sense of control over when dealing with stress, people in their immediate environment are more inclined to utilize aggressive or active coping mechanisms. or they may use a combination of coping techniques to show resistance to stressors (Biggs et al., 2017)

2.4.7. Promotion and Prevention of Mental Health

The goal promotion of mental health is to treat the agents that influence mental health. Among these include social, environmental, behavioral, and even political challenges. Macro-level variables such as poverty, unemployment, and better living conditions have an impact on mental health (Min & Lee, 2013). Furthermore, behavioral disorders like abuse, smoking, and illegal sexual behaviors are associated with mental health promotion. As a result, the promotion of mental health is an unavoidable aspect of the overall promotion of health (Herrman, 2001). Mental health promotion refers to a broad scope of activities that aim to improve not just mental health but also health behaviors and circumstances that affect physical health. Nonetheless, the focus on broader societal changes in mental health promotion does not seem to fit within the scope of health policies and interventions. For example, mental health promotion programs are unlikely to result in considerable changes in socioeconomic disparity and poverty (Zechmeister et al., 2008). As a result, mental health promotion initiatives should use an etiological approach, identifying the most important determinants of mental health and proving improvements in these characteristics to create evidence for improved mental health outcomes (Patel et al., 2005).

In this way, specific mental health indicators can generate to inform broader policy actions and strategy shifts. Preventing or delaying recurrences of mental disorders, as well as the impact of illness on the

affected person, their families, and society, was defined as reducing the morbidity, spread, and recurring of disorders of mental, the amount of time spent dealing with symptoms or a risk factor for mental illness with the hopes of preventing or postponing recurrences, as well as reducing the impact of illness on the individual, their families, and society (Conley & Durlak, 2013) The focus of primary interventions is on disease preventive techniques before the onset of sickness. Secondary interventions try to reduce the rate of mental illness prevalence by establishing facilities for early detection and treatment (Clarke & Kuosmanen, 2014).

2.4.8. Factors that influence the mental health of nurses

2.4.8.1. Individual differences

Individual variations do not appear to have a significant impact on nurses' and midwives' mental health and well-being, contrary to popular notions, according to the studies in this review. While there is evidence that psychological traits like resilience, self-efficacy, hope, and, to a degree, personality promote happiness, the data show that sociodemographic factors have a limited impact (Verhaeghe & Maeseneer, 2013). Despite extensive research, data show that sociodemographic characteristics like age, sex, employment, degree, or even race are all factors to consider work grade is not reliable indicators of nurses' and midwives' psychological health and well-being (Hsiao et al., 2015). Several studies found that these characteristics were common mental health issues are unrelated to job happiness problems, among samples of nurses from around the country, as well as work engagement various specialties, and that they not in any major way connected midwives or mental health nurses who are burnt out. Nurses working in critical care and acute settings are more likely to experience burnout and psychological discomfort similarly not predicted by socio-demographics (Bourbonnais, 1999). Other research indicated that personal

care duties common mental illnesses among nurses and midwives were not predicted and that other personal variables such as marital status and sexual orientation had no bearing on midwives may experience work-related stress, burnout, depression, or anxiety (Hsiao et al., 2015).

Where socio-demographic indicators are shown to be associated with wellbeing and mental health among nurses and midwives, their impacts tended to be smaller than the other factors. However, there was some indication that young and inexperienced nurses and midwives were more vulnerable (Perry et al., 2015). There is minimal proof that nurses' and midwives' personalities have changed an impact on their mental health and well-being, according to the studies analyzed. One study, for example, Just a few significant connections between the 'Big Five' personality traits (conscientiousness, openness to experience, agreeableness, extraversion, and neuroticism) and six distinct forms of job stress reactions were discovered (Hsiao et al., 2015). Nonetheless, more conscientious critical care nurses reported reduced stress from time constraints, self-assurance/competence, and management. These findings are explained by the fact that nurses that are to cope with stress, those who are more conscientious are more inclined to use problem-solving abilities. Critical care, on the other hand, compared to other specialties, has a higher nurse-to-patient ratio therefore the work there may be more demanding but involve a lower caseload (Verhaeghe & Maeseneer, 2013). Hope, efficacy, resilience, and optimism have all been associated with increased job engagement and lower burnout among nurses. Midwives who were more emotionally intelligent and resilient were also less likely to experience post-traumatic stress symptoms. The tactics that midwives and nurses adopt have a big impact on how to deal with stress's effect on their mental health and welfare, according to the general literature on coping (Perry et al.,

2015). avoidant or emotional coping behaviors are connected to an increased risk of anxiety and depressive symptoms, as well as burnout, whereas problem-focused coping behaviors have been linked to improved outcomes mental health outcomes (Martensson, 2014).

2.4.8.2. Occupational factors

Midwives and nurses work in possible traumatic and upsetting cases. vulnerability to such occurrences regularly can have a negative impact on their mental health and well-being, but even a single traumatic incident can have major implications (Park et al., 2018). Despite this, research shows that nursing and midwifery are gratifying and important jobs that provide a feeling of purpose and pride that can help people feel better. (Martensson, 2014). Nursing and midwifery are both characterized by the provision of care and compassion to others, and many midwives and nurses find meaning and a sense of purpose in this element of their work. Building strong relationships with patients is particularly rewarding since it allows midwives and nurses to felt like They have a positive impact (Hsiao et al., 2015). The most meaningful situations fluctuate depending on the type of work performed. According to research with midwives, It was very rewarding to provide continuity of treatment and to be a part of a patient's pregnant journey, whereas soothing end-of-life patients was the nurses in palliative care find a source of satisfaction (Perry et al., 2015). Those circumstances that generate significant emotional emotions in midwives and nurses, such as anxiety, fear, helplessness, are considered potentially upsetting and traumatic (Verhaeghe & Maeseneer, 2013).

Managing patient mortality is a typical origin of sadness for many nurses, despite it being a necessary part of their job. While providing compassionate care benefits staffing and patient outcomes well-being, Nurses and midwives may incur personal costs as a result of it. Inability to

turn off from work, an inability to unwind and rehabilitation chances, and stressed personal relationships are among them (Martensson, 2014). When patient results are not as intended, having unreasonable anticipations the degree they can provide delivery to their patients has the ability to cause anguish and self- censure among personnel. This is seen in mental health nurses who have witnessed a patient commit suicide and in midwives who have witnessed a prenatal trauma occurrence (Yang et al., 2018).

Although situations when horrific events occur upsetting occurrences emergency rooms, abortion treatment, critical care, and palliative care room, for example, are increasingly prevalent, such incidents have a negative impact on mental health nurses (Park et al., 2018). Newly qualified employees, as well as those who believe they are ill-prepared, seem to be particularly vulnerable. When incidents involving children or patient suicide occur unexpectedly, they are more likely to be stressful. Additional posttraumatic stress risk factors include midwives and nurses who can emotionally in relation to circumstance in some manner, whether via their own experience or that of a friend or family member (Perry et al., 2015). This is especially true if nurses and midwives are emotionally committed in their work or in their patients. The number and severity of stressful incidents raises the likelihood of developing post-traumatic stress symptoms (Park et al., 2018). The mental health of nurses and midwives was found to be affected by repeated exposure. Factors such as professional experience, supportive work environments, training, self-esteem, and the use of humour can help to mitigate the negative impact of traumatic events on the mental health of nurses and midwives (Martensson, 2014).

2.4.8.3. Organizational factors

Some studies that have distinguished the substantial drop in the several of midwives and nurses attest to the rise in job demands. Although shift

work is a necessary part of many nursing and midwifery jobs, it is a cause of discontent for many people (Yang et al., 2018). Nonetheless, kind of shift (working on weekends and evenings) and inadequate situation are likely to contribute significantly to employee discontent and poor mental health (Perry et al., 2015). Demands of the job, which refer to how difficult it is, which refer to how demanding a specific to play a part, are a more general representation of workload. This is a cause for concern, as excessive job expectations have already been linked to a greater extent risk of burnout and depression and anxiety symptoms in nurses (Park et al., 2018).

High job demands have physiological repercussions, such as higher heart rates, which can have serious consequences for employees' long-term health. In multiple qualitative investigations of nurses working in various settings, a tremendous workload, together with a lack of personnel and resources, identified as a primary source of stress (Hsiao et al., 2015).

Maintaining mental health requires a feeling of being in command of one's life in working conditions. This is often measured as job control, this was shown to be lower among nurses than in other professions, similar to job demands mentioned above (Yang et al., 2018). Job control was demonstrated to prevent nurses and midwives from burnout anxiety and depression in other research (Martensson, 2014). Nurses who work in operating rooms and hospital wards have been connected to having more job control. Nurses' mental health and wellbeing have been found to harm by more precise expressions of a lack of independence, and little involvement in decision-making processes are all symptoms of inadequate work control (Bourbonnais, 1999).

There is evidence that nurses in less likely than the general working staff to feel supported, similar to job demands and control. This is a

significant result, given a growing collection of evidence suggests that a lack of social support might have a negative impact on nurses' mental health and well-being (Park et al., 2018). Workplace support linked to a lower risk of according to research, there is fatigue in mental health status for nurses, depression, and anxiety in a mixed sample of nurses, burnout and depression and anxiety symptoms in acute nurses, disengage and work-related anxiety in hospital nurses, and disengage in nurses who care for the elderly (Hsiao et al., 2015).

2.5. Quality of Life

2.5.1 .Quality of Life background

The term quality of life (QOL) is a complex and broad concept that is new, but not the content; human beings have always sought to live a good life. Questions about the basic quality of a good existence have occupied the minds of great philosophers throughout history and cultures. Happiness and welfare were more often used phrases in the past (Herrman, 2001). Individuals are urged to reach their full potential to live a happy life, according to various definitions. For this purpose, quality of life stands for being, well-being, and a sense of belonging are all words that come to mind when thinking about being, as well as the term "health" on occasion (Lee & Pejabat, 2018). Quality of life has both objective and subjective components. People's perceptions of QOL experiences for enterprises are based on a critical goal: to meet the diverse demands of employees while generating positive job-related emotions (Ruiz et al., 2020). QOL factors are numerous and diverse, spanning a wide range of life domains. Material conveniences, health status, opportunities for recreation, interaction with others, the status of education or learning, Diversity and artistic expression, values of culture, the working environment, finance and compensation, training and development, security, residence, and expression freedom are

all models of quality of life (Gholami et al., 2012). Since 1970 its inception, the World Health Organization has defined quality of life (QOL). As an individual's perspective of their place in life in connection to their goals, personal convictions, expectations, interaction with others, criteria, and interests in the context of the culture and value systems in which they live (Borthwick-Duffy, 1992). There are three basic characteristics of the concept of quality of life :

1. Instead of reflecting a nationwide quality of life, it reflects individual life situations and perspectives.

2. It is a multifaceted notion that encompasses a wide range of life domains, including housing, education, employment, work-life balance, and access to institutions and public services, as well as their interactions.

3. It combines empirical data on subsistence status with self opinions and situations to supply an image of societal welfare (An et al., 2020).

The topic of life quality has become increasingly popular in recent years. The term quality of life is now commonly used in a variety of contexts. The word can be found in publications and television ads. It is also frequently used as a justification for purchasing a particular product (Lee et al., 2018). The commercial says that using the product will improve one's quality of life, which is supposed to be the most compelling reason to buy it. The term quality of life is increasingly widely used in serious discussions (Ruiz et al., 2020). The discourses of social and medical care fall within this category. The goal of professional activities is frequently stated as the quality of life, a goal that is described as equally as vital as the more tangible goals. However, if the quality of life is to be applied in these serious situations, the dimension of quality of life must be determinable and even measurable (Chiu et al., 2007). Personnel from the social and medical sectors, as well as their politicians, require assistance in orienting

themselves in this new reality. They must first determine what quality of life is and then develop instruments to define and quantify this new dimension (Lee & Pejabat, 2018).

2.5.2. The concept of Quality of Life

After World War II, the phrase quality of life (QOL) was coined in the United States. It used to signify the good life, and it was restricted to whether or not you have conventional consumer goods. Affluence — owning a car, a home, or other valuables – was associated with a high quality of life (García & Ramírez Navarrro, 2018). It was a category of the haves. The notion grew in scope throughout time, encompassing life satisfaction, the realization of one's needs and goals, and the modification of one's environment to better cope with it (Varricchio, 2006). To put it another way, the QOL notion evolved from having to be. High quality of life was reserved for the healthy back then. Only a healthy society, according to the argument, is capable of producing material and cultural goods, enabling people to utilize them, and achieving the high degree of development that is indicative of a higher quality of life (Balvir et al., 2021). The technique of determining QOL was given special attention. Finally, general QOL was defined as an individual's assessment of his or her life condition over a period. In other words, it is the evaluation of a portion of one's life that occurs between the human subject on the one hand and the things that influence him/her from the external world and the internal environment (his/her own body) on the other (Stojanov et al., 2020). Observer ratings are regarded as supplementary information. It is important to realize that these evaluations are subject to subjectivity in reality perception. The value people place on various areas of life is influenced in part by the role of the rate in the diagnostic process and the ratter's job. Physicians place a greater emphasis on the somatic state and

physical symptoms that can lower the quality of life (Milosevic et al., 2011). Psychologists and the patient's family place a greater emphasis on psychosocial factors. The subjective source of information - a first-hand assessment of one's position by an interested party – is now often regarded as the most essential and reliable source of data. When assessing their quality of life, everyone considers a variety of criteria. Some of these elements are objective, while others are personal (Stojanov et al., 2020). The economic condition, education, site of residence, work, family relations, and social relations are all crucial external influences for both healthy and unwell persons (García & Ramírez Navarrro, 2018).

2.5.3. Dimensions of the Quality of Life

1. The physical environment encompasses everything that contributes to an individual's comfort and security, including appropriate temperature in the workplace, high-quality room furniture in hospitals, efficient energy, and a well-monitored environment in colleges.

2. Social contacts are aspects that aid in the strengthening of interpersonal ties. Meal-sharing experiences in the workplace could be one example of this. Comfortable visiting areas could be provided at a hospital. This could include online student communities at an institution.

3. Ease and efficiency refer to the characteristics that influence an individual's capacity to complete tasks efficiently: In a corporate setting, there is a lot of freedom in terms of working hours reducing waiting time in hospital transportation services in a university setting.

4. Nutritious and healthful meals, nutrition and lifestyle advice, and access to exercise and athletic programs in a company, a hospital, or a university are all examples of health and nutrition.

5. Factors that help an individual feel truly valued, such as non-monetary employee rewards or company incentive programs, are examples of recognition.

6. Personal development refers to everything that assists people in learning and progressing (Zautra et al., 1977) (Duarte & Pinto-Gouveia, 2016).

2.5.4. Quality of Life good Indicator of general health

The quality-of-life concept is used in the nursing sciences to examine the nursing and non-nursing outcomes of health care and nursing interventions, as well as to assess the health-related and non-health-related implications of health care and nursing interventions (Stojanov et al., 2020). It is part of the broader concept of person-centered nursing care, which entails both extending lives and making nursing efforts to maintain optimal vital activity. This is significant because, according to the WHO, health entails not only the absence of sickness or impairment, but also good physical, psychological, social welfare, the ability to execute social tasks, and the ability to adapt to and cope with change (Milosevic et al., 2011).

The subjective satisfaction that a person experiences and projects onto all elements of their life are a function of the difference between the desired scenario and the real situation, i.e., quality of life is a function of the difference between the wanted situation and the actual situation (physical, psychological, social and spiritual) (Ruiz et al., 2020). Irreversible health decline and decreased mobility result in limitations in daily activities and, as a result, lower quality of life. The gap between the desired and actual scenario widens, and the wider it is, the lower the patient's satisfaction with his or her quality of life (Zautra et al., 1977). This is because all activities that determine the patient's range of independence have a direct and indirect impact on the amount to which the patient requires assistance from others and the healthcare system (Duarte & Pinto-Gouveia, 2016). One of

the reasons we measure the quality of life is to obtain a deeper understanding of the well-being of nursing staff or a specific group of nurses, as well as to examine the benefits and drawbacks of COVID-19's specific influence on the quality of life (Bowling & Windsor, 2001). We acquire vital information about nursing staff, including psychological aspects and quality of life, by assessing QOL (Milosevic et al., 2011).

2.5.5. Quality of life in Nurses

In recent years, there has been a lot of interest in looking into the psychosocial aspects of nursing staff's work environment. Bad financial circumstances, limited physical security, working night shifts, and poor working conditions with a high physical and mental strain are all contributing factors (Varricchio, 2006). Working as a nurse entails dealing with human needs, issues, and suffering daily, as well as regular engagement with co-workers, clients, and their families, as well as many organizational responsibilities (Milosevic et al., 2011). Numerous studies conducted in various nations throughout the world have revealed that nurses experience a significant level of work-related stress. Emotional tiredness, persistent fatigue, cardiovascular disorders, tumors, and pain in the lower region of the spine are the most frequently stated pathological conditions (Ruiz et al., 2020). The environment in which nurses work, as well as the sort of work they conduct, has a significant influence on the quality of life and job satisfaction (Duarte & Pinto-Gouveia, 2016). A working environment that meets the expected safety standards ensures the prevention of injuries and diseases that can occur during the working process, and thus ensures the presence of healthy nurses, unencumbered by working conditions, is unquestionably a prerequisite for a nurse's security and satisfaction in the workplace (Varricchio, 2006). The nursing profession has a tremendous impact on numerous elements of their lives

due to the constant patient care that takes place 24 hours, including employment in rotating night shifts. Rotating night shifts are frequently linked to sleep disturbances, which can harm their physical health by raising the risk of cardiovascular, gastrointestinal, and cancer diseases (Milosevic et al., 2011). Working rotational night shifts can also have a severe impact on mental performance and focus, which raises the likelihood of making mistakes at work (Bowling & Windsor, 2001). The nursing profession's priority list includes topics such as great emotional and physical efforts and insufficient remuneration. As a result, we can conclude that nurses' quality of life is a multifaceted phenomenon that is influenced by and interacts with many facets of their work environment and personal lives (Duarte & Pinto-Gouveia, 2016). The goal of this study was to determine the level of nurses' perceived quality of life, as well as to estimate the differences in nurses' quality of life-based on their place of employment (Varricchio, 2006). Nurses have contributed significantly to our understanding of this notion. The focus of quality of life concept analyses has been on the notion's existential dimensions. Because of quality-of-life researchers' diverse disciplinary viewpoints and a lack of consensus on definition and measurement (Milosevic et al., 2011). Furthermore, nurses are more likely to examine the issue from a social science standpoint than from a nursing standpoint. While this is a practical strategy, it does not guarantee the establishment of a distinct body of knowledge for the nursing field (García & Ramírez Navarrro, 2018).

2.6. The COVID-19 pandemic's impact on nurses

2.6.1. Introduction

The communicable or non-communicable diseases have a major effect on society people and lead to the death of some people, which affect others with stress and fear of this pandemic and the world is currently passing by

the COVID-19 who threatens the world (WHO, 2020).Coronaviruses are viruses group that can contract animals and humans and the cause of SARS, MERS, and COVID-19 (Jemal et al., 2020). (COVID-19) is defined as a disease caused by a novel coronavirus now named severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2; formerly called 2019-nCoV) (WHO, 2020).

The COVID -19 pandemic impact for Iraq and neighbouring countries was grand which gradually led to close in March and April and board-spread disruption of people's life (Kamal & Othman, 2020).

When Iraq records first COVID-19 case on February 24, 2020, in Governorate of Najaf, the country has already been facing a combination of challenges and emergencies, see the Figure (1) (Habib et al., 2020).

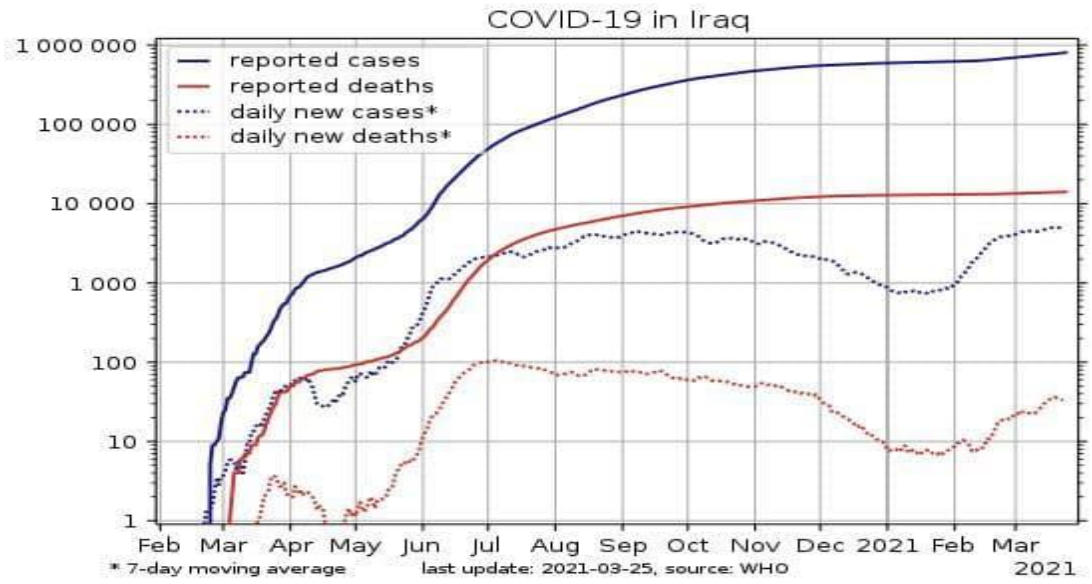


Figure (1) COVID-19 in Iraq

In this regard, to decrease the rate of spread, the government of Iraq in March 2020 forced all people members to stay at home an obligatory quarantine, except essential needs. As a result of the pandemic, Iraq government interfaces with hard work pressure, besides the high total health disbursement (Kamal & Othman, 2020).

The COVID-19 pandemic has had a physical and psychological impact on nurses. Nurses are more vulnerable to the pandemic of COVID-19 than the general population because they meet infected people on a regular basis (Rossi et al., 2020). Nurses have been forced to operate in stressful situations, without the right safety equipment, and have had to make difficult ethical decisions (Gorbalenya et al., 2020). Staff shortages, poor working conditions, and an inadequate mental health care system have all been affected by the pandemic (Law, 2020). Globally, health and social systems are straining to keep up. In humanitarian, fragile, and low-income countries, where health and social institutions already weakened, the situation is particularly difficult (Ferguson et al., 2020). Sexual and reproductive health services are at risk of being cut, resulting in greater maternal mortality and morbidity (Adams & Walls, 2020). According to the World Health Organization, one out of every ten nurses in some countries is infected with the coronavirus. The International Council of Nurses revealed in May 2020 that the COVID-19 epidemic had infected at least 90,000 healthcare professionals and killed over 260 nurses. Retired healthcare workers will take out of retirement to assist during the COVID-19 crisis, according to the government (CDC, 2020).

2.6.2. Psychological impact

The nurses who cared for COVID-19 patients experienced worry, despair, and stress. Increasing job expectations on healthcare workers clash with their responsibilities to their families and friends, causing psychological stress (Ripp et al., 2020). Nurses expressed concern about having to self-isolate, quarantine, or become unwell, as well as psychological problems (Xing et al., 2020) such as:

2.6.2.1. Anxiety

During pandemics, health care providers who are actively involved in handling impacted patients often experience anxiety. Furthermore, nurses are more exposed to traumatic events such as patients' suffering and fatalities as a result of their direct interaction with COVID-19 patients (Cui et al., 2021) which may exacerbate their concerns and anxiety. Nurses reported having the highest anxiety levels and the highest prevalence of anxiety among nurses. Fear of becoming infected or unintentionally infecting others was the main source of anxiety among nurses during the COVID-19 pandemic (Elkholy et al., 2020). Lack of personal protective equipment (PPE), fear of harboring the novel coronavirus at work, lack of access to COVID-19 testing, fear of transmitting the virus at work, doubt that their institution would support them if they became infected, lack of access to childcare facilities during a lockdown, and fear of being deployed in an unfamiliar war were among the other sources of anxiety identified in nurses (Mattila et al., 2021). While a modest amount of anxiety might assist, stimulate and elicit excitement in a person, long-term anxiety exposure can have detrimental repercussions for their physical and psychological health as well as their professional performance.

Nurse Managers are critical in addressing nurses' COVID-19 worry and anxieties by supporting their mental, psychological, and emotional health through evidence-based measures, supportive organizational policies, and the provision of a safe and secure work environment (Di et al., 2020). Several risk factors, especially those relevant to employment and decreased proper support, might cause stress and panic among HCWs. Anxiety can manifest itself in three ways: cognitive, behavioral, and physical. Constant anxieties, insufficient focus, concern, and terrified Extreme conditions are

expected or catastrophic consequences are all cognitive symptoms (Temsah et al., 2020).

2.6.2.2. Depression

Nurses who provide treatment to COVID-19 patients frequently experience depressive symptoms. Those who are currently suffering from psychological problems may have an exacerbation of symptoms (Elhadi et al., 2020). Sleep and appetite disturbances, in a bad mood, diminished attention in previously pleasant activities, impoverished focus and focus and easy fatigue are all common symptoms of depression. Inability to assist the patient during a crisis may result in feelings of guilt, shame, or self-harm (Lee et al., 2018). Feeling powerless, hopeless, and worthless can have a cognitive component (Tercan et al., 2020). A depressed episode diagnosis can be made when the symptoms are numerous, varied, and upsetting, and they are interfering with daily functioning. The problem requires prompt pharmaceutical and psychological interventions to be successfully addressed (Sahin et al., 2020).

2.6.2.3. Post-Traumatic Stress Disorder

Aside from the more prevalent mental health difficulties, persons who do COVID-19 responsibilities may suffer PTSD afterward. The forecasts are based on prior experiences with the MERS and SARS outbreaks (Greenberg et al., 2020). According to earlier studies, the rates of PTSD in the current pandemic may surge above 10% due to increased mortality and other risk factors contributing to psychological stress. Moral harm, such as a sense of being unable to aid the patient, may potentially play a role in the development of PTSD (Lau et al., 2006).

2.7. Previous studies

2.7.1. First study

Di Tella et al., 2020 During the COVID-19 epidemic in Italy, researchers looked at the mental health of healthcare personnel. As a result, the goal of this study was to look at the psychological effects of the COVID-19 epidemic on Italian healthcare personnel. The final dataset includes the replies of 145 healthcare workers (72 physicians and 73 nurses). Participants were requested to complete (a) quality of life and health-related Visual Analogue Scales, (b) State-Trait Anxiety Inventory-Form Y1, (c) Beck Depression Inventory, and (d) PTSD Checklist for DSM-5. When healthcare workers working in COVID-19 wards were compared to those working in other units, the former reported greater levels of depressive symptoms and PTSS. Furthermore, regression analyses revealed that gender and marital status, as well as gender and age, were significant predictors of depressive symptoms and PTSS among healthcare workers dealing with COVID-19 patients.

2.7.2. Second Study

Buselli et al., 2020 During the COVID-19 outbreak in Italy, researchers looked into the assessment psychological care of health workers. The main goal of this study is to highlight and share the experiences of an Occupational Health Department that was in charge of monitoring hospital staff conditions during the first phase of the SARS-COV-2 epidemic. As of the date of this report, 106 workers (79 females and 27 males, on average) were employed. Approximately 81 percent of all participants had been tracked before the pandemic's onset. A total of 60% of the people in the study had their previous therapy program changed. Meanwhile, 7% switched from psychiatric treatment to a combined therapy that included psychological treatment. The findings show that the majority

of people who sought assistance were female nurses who already had mental health issues. A more clinical, gender-specific approach is required.

2.7.3. Third Study

Tercan et al., 2020 Nurses working in a COVID-19 pandemic hospital was evaluated for differences in anxiety and depression. A survey was used to take a quantitative approach. A convenience sampling method was used to recruit 331 nurses. Females had significantly greater anxiety levels (p=0.017). Nurses who have family members with chronic illness have significantly higher depression ratings than nurses who do not (p=0.376). Similarly, nurses with older family members have significantly higher sadness and anxiety ratings than nurses without (p=0.008). There was a significant difference in depression levels between nurses who provided COVID-19 care and those who did not (p=0.002). The depression and anxiety levels of nurses are investigated in this study. Nurses who care for COVID-19 patients had greater levels of despair and anxiety. Nurses who assist COVID-19 patients should be in a functional mental state. To maintain a healthy world, governments, health organizations, and hospital administrations should take appropriate measures to prevent nursing depression and anxiety.

2.7.4. Fourth Study

Zhu et al., 2020 COVID-19: Immediate Psychological Impact on 5062 Health Workers was studied in Wuhan. The goal was to analyze the immediate psychological impact on HWs. Between February 8th and 10th, 2020, a single-center, cross-sectional survey of HWs was conducted using online questionnaires. The Impact of Event Scale-Revised (IES-R), Patient Health Questionnaire-9 (PHQ-9), and Generalized Anxiety Disorder 7-item (GAD-7) were used to assess stress, depression, and anxiety, respectively. A questionnaire has been created to analyze the effectiveness of Tongji

Hospital's psychological protection measures. 5062 filled surveys were received (response rate, 77.1 percent). Stress, sadness, and anxiety symptoms were reported by 1509 (29.8%), 681 (13.5%), and 1218 (24.1%) HWs, respectively. Women (HR, 1.31; P=0.032), years of work > 10 years (HR, 2.02; P0.001), concurrent chronic illnesses (HR, 1.51; P0.001), history of mental disorders (HR, 3.27; P0.001), and proven or suspected family members or relatives (HR, 1.23; P=0.030) were all risk factors for stress, protective variables were hospital and department administrators' care (odds ratio [OR], 0.76; P=0.024) and comprehensive coverage of all departments with protective measures (OR, 0.69; P=0.004).

2.7.5. Fifth Study

Shoja et al., 2020 The impact of Covid-19 on the workload of Iranian healthcare personnel was investigated. Nurses scored higher on the NASA-TLX subscales for mental pressure, physical pressure, time strain (temporal), and frustration than the other vocations (p0.05). Furthermore, compared to other occupations, nurses had a significantly higher workload. The NASA-TLX score was impacted by the type of employment, the shift of work, educational level, and the presence of COVID-19. In general, NASA-TLX scores in nursing were higher than scores in other health care professions. The findings of this study show that person who interacted with COVID-19 patients had considerably greater overall workload and mental health than those who did not.

2.7.6. Sixth Study

Ruiz-Fernández et al., 2020 Burnout, weariness, and compassion satisfaction were investigated as factors in nursing professionals' quality of life. Compassion fatigue and burnout were at an all-time high. Compassion satisfaction was lower than the expected average. Compassion fatigue is linked to marital status, the healthcare environment, the location where the

center is located, and the work shift. The presence of compassion fatigue was predicted by being married, working in primary care, living in a city, and working a morning, evening, or night shift, according to the multiple linear regression model. The age, sex, marital status, the healthcare setting of the center, the location of the center, and the work shift were all factors in compassion satisfaction.

2.7.7. Seventh Study

Kamal & Othman, 2020 In the Kurdistan area of Iraq, depression, anxiety, and stress were researched during the COVID-19 epidemic. Data from 548 adult participants were gathered and analyzed using an online survey utilizing the DASS-21 to evaluate depression, anxiety, and stress in April 2020. The majority of the participants were from Sulaimani (89%), with a mean age of 37.9 (SD 13.5) and a male/female ratio of 1. Depression, anxiety, and stress were all prevalent in 45 %, 47 %, and 18 % of the population, respectively. Female sex was shown to be a significant independent predictor in greater levels of depression (coefficient 1.89, p0.05), anxiety (coefficient 2.19, p0.001), and stress (coefficient 1.52, p0.05) in regression analysis. Depression (coefficient 3.81, p0.05; coefficient 2.39, p0.05 respectively), anxiety (coefficient 2.92, p0.05; coefficient 4.1, p0.001 respectively), and stress (coefficient 3.83, p0.001; coefficient 4.1, p0.001 respectively) were all found to be significantly associated with postgraduate education and other occupations. The study finds that common mental health illnesses were prevalent throughout the pandemic, and it recommends that public health measures be taken to improve the population's mental health and resilience.

2.7.8. Eighth Study

Khanal et al., 2020 A cross-sectional survey from Nepal looked at mental health implications among health professionals during COVID-19

in a low-resource context. A total of 475 health professionals took part in the study. A 14-item Hospital Anxiety and Depression Scale (HADS: 0–21) was used to assess anxiety and depression, while a 7-item Insomnia Severity Index (ISI: 0–28) was used to assess insomnia. To evaluate the risk variables for mental health outcomes, researchers used multivariable logistic regression analysis. In all, 41.9 % of health professionals reported anxiety symptoms, 37.5 % had depression symptoms, and 33.9 percent had sleeplessness symptoms. Anxiety (AOR: 2.47; 95 % CI: 1.62–3.76), sadness (AOR: 2.05; 95 percent CI: 1.34–3.11), and sleeplessness (AOR: 2.37; 95 % CI: 1.46–3.84) were all substantially linked with stigma encountered by health workers. Anxiety (AOR: 3.40; 95 % CI:1.31–8.81), depression (AOR: 3.83; 95 % CI: 1.45–10.14), and insomnia (AOR: 3.82; 95 % CI: 1.52–9.62) symptoms were significantly associated with a history of mental health medication, while insufficient workplace precautionary measures were significantly associated with higher odds of exhibiting symptoms of anxiety (AOR: 1.89; 95 % CI: 1.12–3.19) and depression (Nurses (AOR: 2.33; 95% CI: 1.21–4.47) were significantly more likely to experience anxiety symptoms than other health workers. During the early stages of the pandemic in Nepal, health professionals displayed a significant amount of worry, melancholy, and sleeplessness symptoms, according to the data. Mental health outcomes were more likely among health professionals who faced stigma, had a history of medication for mental health problems, and reported insufficient preventative measures in their employment.

2.7.9. Ninth Study

Elhadi et al., 2020 studied the Mental health of healthcare professionals during the civil war and the COVID-19 epidemic The researchers conducted a multi-center cross-sectional survey on depressed

symptoms, anxiety symptoms, and abuse. The Hospital Anxiety and Depression Scale (HADS) was developed to assess the prevalence of anxiety and depression in healthcare personnel. 745 qualified healthcare professionals from 15 hospitals had their data evaluated. The connection between depressive and anxious symptoms and the individuals' fundamental characteristics was determined. A total of 420 people (56.3%) experienced depressed symptoms, whereas 348 people (46.7%) had anxious symptoms. Depressive symptoms were linked to age, resident status, department, stigmatization, and living in a war zone. Anxiety symptoms were substantially linked with age, department, years of experience, working hours per week, internal displacement, stigmatization, living in a war zone, and verbal abuse.

2.7.10. Tenth Study

Elkholy et al., 2020 studied In Egypt, the mental health of frontline healthcare workers who were exposed to COVID-19 was studied. This hospital-based cross-sectional survey collected demographic and mental health data from 502 HCW dealing with COVID-19. In April and May 2020, HCW were polled in 20 hospitals around Egypt (Fever, Chest, and Quarantine hospitals). Sixty % of the 502 HCW polled were physicians, 16.1% were specialist nurses, and 23.9 % were nonspecialized nurses. In chest hospitals, 35.3 percent worked, 17.5 percent worked in fever hospitals, and 47.2 percent worked in quarantine hospitals. Anxiety, sleeplessness, sadness, and stress were all common complaints among HCWs. Females had a greater risk of severe anxiety (odds ratio [OR], 1.85; 95 % confidence interval [CI], 1.12–3.05; p =.016), severe depression (OR, 2.013; 95 % CI, 1.17–3.4; p =.011), and severe stress (OR, 2.68; 95 % CI, 1.5–4.6; p.001). When compared to Quarantine hospital personnel, Fever

hospital workers had a greater incidence of severe depression (OR, 1.52; 95 % CI, 1.11–2.09; p.01).

2.7.11. Eleventh Study

Allan et al., 2020 studied the frequency of common and stress-related mental health problems among pandemic-affected hospitals' healthcare employees. The prevalence estimate for clinically significant PTSS in the acute period was 23.4 % (95 % CI 16.3, 31.2; N = 4147; I2 = 96.2 %); the estimate for the 12 months plus window was 11.9 percent (8.4, 15.8; N = 1136; I2 = 74.3 percent). The prevalence estimates for general psychiatric cases were 34.1 percent (18.7, 51.4; N = 3971; I2 = 99.1 %); 612–months, 17.9 percent (13.1, 23.2; N = 223; I2 = 0.0 %); and 12 months plus, 29.3 % (6.0, 61.0; N = 710; I2 = 97.8%). In the acute period, there were no differences between doctors and nurses in terms of PTSS and general psychiatric cases. Mental health disorders are particularly frequent among HCWs dealing with pandemic-affected patients in the immediate aftermath of a pandemic, although the trajectory of these illnesses after that time is unknown.

2.7.12. Twelfth Study

Que et al., 2020 studied the influence of the COVID-19 epidemic on healthcare personnel's mental health. A cross-sectional web-based survey of healthcare professionals was undertaken in February 2020. The Generalized Anxiety Disorder Scale, Patient Health Questionnaire, and Insomnia Severity Index were used to examine psychological issues. The variables linked to psychological issues were investigated using logistic regression analysis. During the COVID-19 pandemic in China, the prevalence of anxiety, sadness, sleeplessness, and general psychological issues in healthcare professionals was 46.04 %, 44.37 %, 28.75 percent, and 56.59 %, respectively. In physicians, medical residents, nurses,

technicians, and public health workers, the prevalence of general psychological issues was 60.35 %, 50.82 %, 62.02 %, 57.54 %, and 62.40 %, respectively. Front-line healthcare professionals had a greater risk of anxiety, sleeplessness, and general psychological issues than healthcare workers who did not work on the front lines.

2.7.13. Thirteen study

Pappa et al., 2020 studied During the COVID-19 epidemic, there was a high frequency of depression, anxiety, and sleeplessness among healthcare personnel. Up till April 17th, 2020, a comprehensive search of literature databases was done. Two reviewers evaluated full-text publications separately based on predetermined criteria. To determine the prevalence of certain mental health conditions, the risk of bias for each individual study was examined, and data was aggregated using random-effects meta-analyses. The review process has been entered into PROSPERO and is accessible over the internet. Thirteen trials with a total of 33,062 individuals were included in the analysis. Anxiety was assessed in 12 studies, with a pooled prevalence of 23.2%, and depression in 10 studies, with a prevalence rate of 22.8%. Female HCWs and nurses had greater rates of emotional symptoms than male and medical professionals, respectively, according to a subgroup study. Finally, a total of 389 percent of people suffer from sleeplessness, according to five research.

2.7.14. Fourteen study

Vidotti et al., 2019 studied Burnout syndrome, occupational stress, and nursing employees' quality of life. The Maslach Burnout Inventory, the Demand-Control-Support Questionnaire, and the World Health Organization Quality of Life – WHOQOL-Brief were used to collect data on sociodemographic, occupational, and lifestyle factors. The Spearman's rank correlation coefficient was used to examine the data using descriptive

and inferential statistics. Burnout syndrome was shown to be prevalent in 20.9 % of workers, and its aspects included excessive demand, a lack of control over work, a lack of social support at work, and bad assessments of physical, psychological, and social quality of life as well as the workplace. Burnout syndrome has been linked to high-stress levels and a bad opinion of life quality among nurses. The Spearman's rank correlation coefficient was used to examine the data using descriptive and inferential statistics. Burnout syndrome was shown to be prevalent in 20.9 % of workers, and its aspects included excessive demand, a lack of control over work, a lack of social support at work, and bad assessments of physical, psychological, and social quality of life as well as the workplace.

2.7.15. Fifteen Study

Sarafis et al., 2016 studied the effects of work stress on nurses' caring behaviors and health-related quality of life. In 2013, correlational research was undertaken in Greece with nurses (N = 246) who worked in both public and private facilities. Three study tools were used to operationalize the variables: The Expanded Nursing Stress Scale (ENSS), the Health Survey SF-12, and the Caring Behaviours Inventory (CBI). We ran both univariate and multivariate analyses. Participants were much more stressed when they were exposed to death, patients and their families, confrontations with supervisors, and doubt regarding the therapeutic impact. Total stress and the four aspects of CBI were shown to have a strong negative connection.

Chapter Three

Methodology

Chapter Three

Methodology

The study's methodology is presented in this chapter.

3.1. Study Design

A correlation study design for quantitative research. Using the technique in the assessment to impact mental health status and quality of life among nurses in Iraq through the COVID -19 pandemic. The research was carried out between 17 /3/ 2021 to 16 /3/ 2022.

3.2. Arrangements for Administration and Ethics

Formal administrative approvals to perform the study were obtained prior to data collection, as shown in appendix (A).

1. Official agreement was obtained from the Department of Mental Health Nursing after the presentation of the project, then permission from the University of Babylon / College of Nursing / Research Ethics Committee to conduct the study.
2. Approval from Training and Development Center in Babylon health directorate.
3. The researcher obtains agreement from the nurses themselves to participate in the study, then leaves them to decide if they participate or not completely freely according to their conviction of the subject.
4. The researcher informs the participants that the information will be kept private and used solely for research reasons to stimulate nurses to take part in the study.

3.3. The Study Setting

The research was carried out on all levels of nurses who work at the hospitals within the Iraqi ministry of health in all Iraqi governorates.

3.4. Description of the Sample

3.4.1. The target population

The target sample was composed of (70066) nurse who works in the hospitals within the Iraqi ministry of health (This statistic was taken from the Iraqi Ministry of Health, Nursing Department). To obtain the appropriate sample for the research, the researcher used (Steven Thompson's equation) and after performing the calculation, the result was 383 nurses, but the researcher preferred that the participant nurses be (1000) nurses which are larger than required to make the sample more representative of the community and suitable for research and to ensure the credibility of the results and reduce bias (appendix B).

3.4.2. The Study Sample

A non-probability (purposive) sample of 1000 nurses was selected from south to north in Iraq. Those nurses accepted participating in the study.

3.4.3. The Criteria of the Study Sample:

1. The nurses working in hospitals of the ministry of health.
2. Both gender male and female
3. Excluding nurses working outside the nursing wards (who do not provide direct nursing care to the patient and have administrative responsibilities).
4. Excluding any previous history of psychiatric disorder and chronic diseases.

3.5. The Instruments of study

3.5.1 The Instruments

The study was conducted on all levels of nurses who work within the Iraqi ministry of health One of the tools that were used to build the questionnaire was to measure the "impact COVID-19 pandemic on mental health and quality of life among nurses in Iraq". The study depended and modification also on the Depression, Anxiety Stress Scale (DASS21) the Arabic version (Moussa et al., 2017) (Al-Zahrani, 2019). And Quality of Life during COVID-19 Scale the Arabic version (Abde Nasser, 2020) because this research is close to our study, the researcher was contacted and his approval was obtained for the purpose of using a research tool to build the current research questionnaire (appendix C).

The following details of each Scale used as follow:

The Questionnaire

The Questionnaire included five parts see in (appendix C):

1. **Part one:** Letter cover to get the nurses' consent to participate in the research.
2. **Part Two**: sociodemographic data such as (gender, age, marital status, location, education level, have children, No. of children, years of work in hospitals of the ministry of health, years of experience in the nursing field, and interest in nursing work.
3. **Part Three:** question about COVID-19 such as work in the health institution, Personal protection equipment available in the workplace, have you previously been infected by COVID-19, and how severe was the infection with COVID-19.
4. **Part Four:** Depression, Anxiety Stress Scale (DASS21) Questionnaire, in this section, 21 questions. Levels of the status of mental health were assessed by using the "Depression, Anxiety and Stress Scale (DASS-

21)" and the score was calculated using the standard scale and divided into:

A. Depression subscale: it consists of (7) items (3,5,10,13,16,17,21) using four levels Likert rating scale (almost always, often, sometimes, never) they have been rated and scored as (0) for never, (1) for some time, (2) for often, (3) for almost always, the total degree of score 21 and this divides the levels of depression into the following table:

Table (1-3) depression levels scores

No.	Score	Severity
1.	(0–4)	Normal
2.	(5–6)	Mild depression
3.	(7–10)	Moderate depression
4.	(11–13)	Severe depression
5.	(14+)	Extremely severe depression

B. Anxiety subscale: it consists of (7) items 2, 4, 7, 9, 15, 19, and 20 using four levels Likert rating scale (almost always, often, sometimes, never) they have been rated and scored as (0) for never, (1) for some time, (2) for often (3) for almost always, the total degree of score 21 and this divides the levels of anxiety into the following table:

Table (2-3) anxiety levels scores

No.	Score	Severity
1.	(0–3)	Normal
2.	(4–5)	Mild anxiety
3.	(6–7)	Moderate anxiety
4.	(8–9)	Severe anxiety
5.	(10+)	Extremely severe anxiety

C. Stress subscale: it consists of 7 items 1, 6, 8, 11, 12, 14, and 18 using four levels Likert rating scale (almost always, often, sometimes, never) they have been rated and scored as (0) for never, (1) for some time, (2) for often (3) for almost always, the total degree of score 21 and this divides the levels of stress into the following table:

Table (3-3) stress levels scores

No.	Score	Severity
1.	(0–7)	Normal
2.	(8–9)	Mild stress
3.	(10–12)	Moderate stress
4.	(13–16)	Severe stress
5.	(17+)	Extremely severe stress

5. **Part five:** Quality of Life during COVID-19 scale, in this section, 15 questions using five levels Likert rating scale (almost always, often, sometimes, little, never) they have been rated and scored as (1) for never, (2) for little (3) for some time, (4) for often (5) for almost always, the total degree of score 75 and this divides the levels of quality of life into the following table:

Table (4-3) quality of life levels scores.

No.	Levels	Score
1.	Poor	(15-27)
2.	Fair	(28-39)
3.	Good	(40-51)
4.	Very good	(52-63)
5.	Excellent	(64–75)

3.5.2. The Study Instruments Validity

The instruments were given to a panel of experts in various disciplines (nursing and medicine) to assess the questionnaire validity, draft of the questionnaire was shown to 19 experts to ensure that it was valid (Appendix D) and they are each of

1. (3) Experts of the Nursing College / Babylon University.
2. (2) Experts of the Nursing College / Baghdad University.
3. (2) Experts of the Nursing College / Karbala University.
4. (1) Expert of the Nursing College/al Qadisiyah University.
5. (4) Experts of the Ministry of Health.
6. (1) Expert of the Medicine College /Al-Kufa University.
7. (1) Expert of the Medicine College / Thi Qar University.
8. (1) Expert of the College of education for women / Al-Kufa University.
9. (1) Expert of the Altoosi University College.
10. (1) Expert of the kut University College.
11. (1) Expert of Al-Manara College of medical sciences.
12. (1) Expert of Medical Technical Institute Baghdad.

- A copy of the questionnaire was submitted to each one of the experts. They asked to review and evaluate its content adequacy.
- The result indicated that the questionnaire is clear, adequate, relevant, and Valid after taking into consideration their suggestion and recommendation for modification.

3.5.3. Pilot Study

Before starting work, the pilot study was conducted on 50 nurses working in the Babylon Health Directorate in hospitals (general Kaseem hospital, Al Shomali hospital, Al Hashmia hospital). For the period from the 18th April 2021 to 17th May 2021. The sample of the pilot study was not entered in the research's sample major.

The objectives of the study of the pilot were:

1. Identify the reliability of the questionnaire.
2. To ensure the questionnaire's clarity and content adequacy.
3. Estimate the average amount of time it takes to collect data.
4. Determine any problems that may arise throughout the data gathering procedure.

The finding of the study of pilot refers that the questionnaire was clear and understandable to the participant. The time needs for data collection range among 15-20 minute.

3.5.4. Reliability of the Questionnaire:

The reliability of the Depression Anxiety Stress Scale (DASS-21) was determined as a result of conducting a pilot study; the Cronbach's Alpha table (5-3) results indicated that the reliability of the Depression Anxiety Stress Scale (DASS-21) is = 0.918, and reliability of the Quality of Life during the COVID-19 scale is = 0.785.

Table (5-3) Reliability statistics

Statistics of Reliability		
Scales	Technique Cronbach's Alpha	Number of Items
Depression Anxiety Stress Scale	**0.918**	**21**
Quality of Life during COVID -19 scale	**0.785**	**15**

3.6. Methods of Data Collection:

After the expert responses were done and complete all official approvals were by the researcher, the questionnaire was administered and the data was collected by the researcher after completing all official approvals that give the researcher had the opportunity to carry out his work to complete the scientific research. The questionnaire was administered online by the researcher personally. Electronic data were collected through

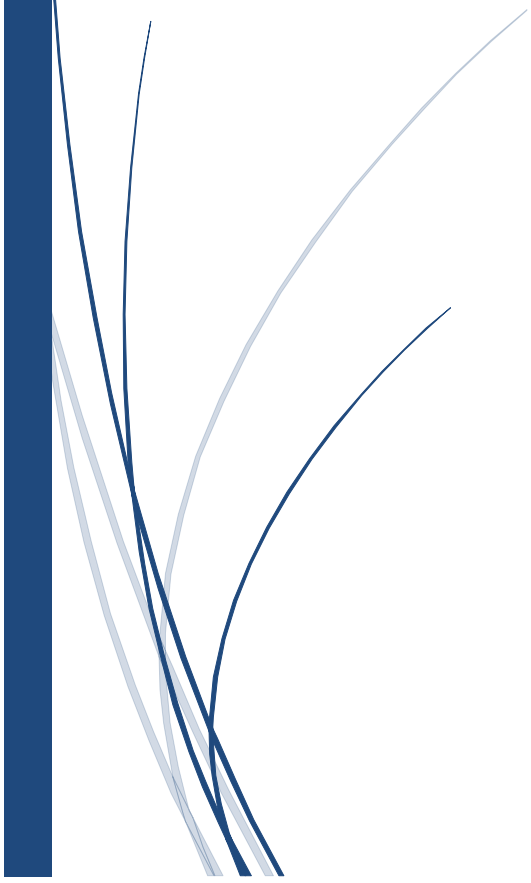
the Google Forms link, the questionnaire link https://docs.google.com/forms/d/1gnUTua5IFWltw7DHaOaEx6b8xEsR4h2UubEclsJ64Nk/edit#responses. The data collection was carried out from 18th May to 17th July 2021 by the purposive method used the questionnaire link was sent to a number of nurses defined by the researcher. In order to ensure that the questionnaire reaches the largest possible number to achieve the actual sample size.

3.7. Statistical Data Analysis

Statistical Package of Social Sciences (SPSS) version 25 and Microsoft Excel (2019) were used to analyze the data. To assess and evaluate the study's findings, the following statistical data analysis methodologies.

Chapter Four

Results of the Study



Chapter Four

Study Results

This chapter shows the results of the study focused on the approaches used in the analysis of data, which include descriptive and inferential statistics as the following.

Table (4-1): Sample Distribution based on Sociodemographic Variable

No.	Variable	Categories	Frequency	Percent
1	Gender	Female	467	46.7
		Male	533	53.3
		Total	1000	100.0
2	Age	20-29	619	61.9
		30-39	261	26.1
		40-49	97	9.7
		50-59	23	2.3
		Total	1000	100.0
3	Marital status	Single	405	40.5
		Married	566	56.6
		Separated	25	2.5
		Widower	4	0.4
		Total	1000	100.0
4	Education level	High school degree	140	14.0
		Diploma degree	339	33.9
		Bachelor's degree	413	41.3
		Postgraduate	108	10.8
		Total	1000	100.0
5	Location	Babylon	191	19.1
		Baghdad	103	10.3
		Najaf	91	9.1
		Karbala	74	7.4
		Wasit	46	4.6
		Qadisiyah	74	7.4
		Salahaddin	26	2.6
		Diyala	40	4.0

		Mosul	43	4.3
		Anbar	19	1.9
		Maysan	109	10.9
		Dhi Qar	95	9.5
		Basra	29	2.9
		Muthanna	29	2.9
		Kirkuk	31	3.1
		Total	1000	100.0
6	Have children	No	530	53.0
		Yes	470	47.0
		Total	1000	100.0
7	No. of children	0	530	53.0
		1	127	12.7
		2	125	12.5
		3	96	9.6
		4	56	5.6
		5	36	3.6
		6	19	1.9
		7	4	0.4
		8	5	0.5
		9	2	0.2
		Total	1000	100.0
8	Years of work in ministry of health	1-6	109	10.9
		7-12	368	36.8
		13-18	221	22.1
		19-24	144	14.4
		25-30	114	11.4
		31-36	44	4.4
		Total	1000	100.0
9	Years of experience in the Nursing field	1-6	716	71.6
		7-12	142	14.2
		13-18	79	7.9
		19-24	37	3.7
		25-30	16	1.6
		31-36	10	1
		Total	1000	100.0
10	Interested in Nursing work	No	168	16.8
		Yes	832	83.2
		Total	1000	100.0

This table shows that the higher present 53.3% of the sample were male, 61.9 % of the sample were from age group (20-29) years, regarding marital status 56.6% of the sample were married, regarding education level 41.3% of the sample were bachelor's degree, regarding location 19.1% of the sample were Babylon, regarding having children 53% of the sample had no children, regarding No. of children 12.7% of the sample have one child, regarding years of work in the ministry of health 36.8% of them have (7-12) year work in the ministry of health, regarding experienced years in the field of nursing 71.6% of the sample have (1-6) year and regarding interested in work of nursing 83.2% of the sample answer were yes they are interested in work of nursing.

Table (4-2): Distribution of the sample according to answers about COVID-19

No.	Variable	Categories	Frequency	Percent
1	Workplace in the health institution	Epidemiology Department	110	11.0
		Isolation Department	76	7.6
		Emergency department	141	14.1
		Admitting Department	92	9.2
		Other places	581	58.1
		Total	1000	100.0
2	Personal protection equipment available in the workplace	No	249	24.9
		Yes	751	75.1
		Total	1000	100.0
3	Have you previously infected by COVID-19	No	531	53.1
		Yes	469	46.9
		Total	1000	100.0
4	How severe was the infection with COVID-19	No	531	53.1
		Mild	183	18.3
		Moderate	252	25.2
		Severe	34	3.4
		Total	1000	100.0

This table shows nurses' answers about COVID-19 the highest percentage (58.1) they answer about the workplace in the health institution as (other places),

personal while answer (75.1% yes) about protection equipment available in the workplace, about previously infected by COVID-19 they answer (no = 53.1), and how severe was the infection with COVID-19 (moderate = 25.2).

Table (4-3): Assessment of study sample regarding mental health status levels (depression, anxiety and stress)

Depression levels	Frequency	Percent
Normal (0-4)	401	40.1
Mild (5-6)	153	15.3
Moderate (7-10)	230	23.0
Severe (11-13)	86	8.6
Extremely severe (14-21)	130	13.0
Total	1000	100.0
Anxiety levels	**Frequency**	**Percent**
Normal (0-3)	316	31.6
Mild (4-5)	182	18.2
Moderate (6-7)	143	14.3
Severe (8-9)	101	10.1
Extremely severe (10+)	258	25.8
Total	1000	100.0
Stress levels	**Frequency**	**Percent**
Normal (0-7)	387	38.7
Mild (8-9)	145	14.5
Moderate (7-10)	167	16.7
Severe (13-16)	171	17.1
Extremely severe (17+)	130	13.0
Total	1000	100.0

This table shows that the higher present 40.1 % of the sample level of depression were normal while (23%) of the sample level were moderate depression levels. Regarding anxiety levels (31.6 %) of the sample were normal, (25.8 %) of the sample have extremely severe anxiety levels. Regarding stress levels (38.7 %) of the sample were normal (17.1 %) of the sample have severe stress levels

Table (4-4): Overall assessment of study sample regarding mental health levels

Mental Health		Frequency	Percent
Normal (≥28)		267	26.7
Change in Mental Health	**Mild (29-36)**	330	33.0
	Moderate (37-44)	220	22.0
	Severe (45-52)	130	13.0
	Extremely severe (53≤)	53	5.3
	Total	1000	100 %

This table shows that the higher present 33 % of the sample have mild changes in mental health status and (26.7%) have normal health statues

Table (4-5): Assessment of study sample regarding the quality of life levels.

Quality of Life	Frequency	Percent
Poor (15-27)	19	1.9
Fair (28-39)	113	11.3
Good (40-51)	440	44.0
Very good (52-63)	368	36.8
Excellent (64–75)	60	6.0
Total	1000	100.0

This table shows that the higher present 44 % of the sample quality of life level were good and 36.8 % of the sample were very good level in quality of life.

Table (4-6): Regression (prediction) **analysis for the impact of COVID-19 on mental health status**

Variable	Model	df	F	P. value	Sig.
Depression	Regression	3	2.055	.105	N.S.
	Residual	996			
	Total	999			
Anxiety	Regression	3	2.788	.040	S.

	Residual	996			
	Total	999			
Stress	Regression	3	2.685	.045	S.
	Residual	996			
	Total	999			

The table indicates founding significant relationship between COVID-19 and anxiety level and stress level. While there is a non-significant relationship between COVID-19 and depression level.

Table (4-7): Regression (prediction) **analysis for the impact of COVID-19 on quality of life**

Variable	Model	df	F	P. value	Sig
Quality of Life	Regression	3	3.012	.029	H.S.
	Residual	996			
	Total	999			

The table indicates found significant relationship between COVID-19 and quality of life.

Table (4-8): Regression (prediction) **analysis for the impact of mental health on quality of life**

Variable	Model	df	F	P. value	Sig
Quality of Life	Regression	3	871.483	.000	H.S.
	Residual	996			
	Total	999			

The table indicates found significant relationship between mental health and quality of life.

Table (4-9): Relationship between Depression Levels and demographic characteristics of the study sample

Depression Levels / Variables	Sources of Variance	One Way ANOVA analysis			
		df	F	P. value	Sig.
Age	Between Groups	3	7.391	.000	H.S.
	Within Groups	996			
	Total	999			
Marital status	Between Groups	3	4.652	.003	H.S.
	Within Groups	996			
	Total	999			
Education level	Between Groups	3	2.284	.047	S.
	Within Groups	996			
	Total	999			
Location	Between Groups	14	2.074	.011	S.
	Within Groups	985			
	Total	999			
No. of children	Between Groups	9	1.984	.038	S.
	Within Groups	990			
	Total	999			
Years of work in the ministry of health	Between Groups	5	2.472	.031	S.
	Within Groups	994			
	Total	999			
Years of experience in the Nursing field	Between Groups	6	2.855	.009	H.S.
	Within Groups	993			
	Total	999			
Workplace in the health institution	Between Groups	4	.474	.755	N.S
	Within Groups	995			
	Total	999			
How severe was the infection with COVID-19	Between Groups	3	.815	.486	N.S
	Within Groups	996			
	Total	999			

The table above shows a significant relationship between depression levels and age, marital status, education level, location, No. of children, years of work in the ministry of health, and years of experience in the nursing field at $p \leq 0.05$. It is clear from this that the table his not found a significant relationship between

depression levels and workplace in the health institution and how severe was the infection with COVID-19 at $p \leq 0.05$.

Table (4-10): Relationship between Depression and demographic characteristics of the study sample

Depression Levels / Variables	t. TEST analysis			
	t	df	P. value	Sig.
Gender	-3.980	998	.000	**H.S.**
Have children	-3.372	998	.001	**H.S.**
Interested in work of nursing	-1.938	998	.050	**S**
Personal protection equipment available in the workplace	-1.744	998	.041	**S**
Have you previously infected by COVID-19	-1.004	998	.316	**N.S.**

The table above shows found a significant relationship between depression levels and gender, having children, interest in work of nursing, personal protection equipment available in the workplace at $p \leq 0.05$. The table also shows that there is no significant relationship between depression levels and have you previously infected by COVID-19 at $p \leq 0.05$.

Table (4-11): Relationship between Anxiety Levels and demographic characteristics of the study sample

Anxiety Levels / Variables	Sources of Variance	One Way ANOVA analysis			
		df	F	P. value	Sig.
Age	Between Groups	3	8.423	.000	H.S.
	Within Groups	996			
	Total	999			
Marital status	Between Groups	3	4.278	.005	H.S.
	Within Groups	996			
	Total	999			
Education level	Between Groups	3	1.690	.168	N.S.
	Within Groups	996			
	Total	999			
Location	Between Groups	14	1.292	.205	N.S
	Within Groups	985			
	Total	999			
No. of children	Between Groups	9	1.752	.043	S.
	Within Groups	990			
	Total	999			
Years of work in the ministry of health	Between Groups	5	3.103	.009	S.
	Within Groups	994			
	Total	999			
Years of experience in the Nursing field	Between Groups	6	3.591	.002	S.
	Within Groups	993			
	Total	999			
Workplace in the health institution	Between Groups	4	.732	.570	N.S.
	Within Groups	995			
	Total	999			
How severe was the infection with COVID-19	Between Groups	3	.798	.495	N.S.
	Within Groups	996			
	Total	999			

The table above shows a significant relationship between anxiety levels and age, marital status, No. of children, years of work in the ministry of health, and years of experience in the nursing field at $p \leq 0.05$. Show this table no found a significant relationship between anxiety levels and education level, location,

workplace in the health institution and how severe was the infection with COVID-19 at $p \leq 0.05$.

Table (4-12): Relationship between Anxiety Levels and demographic characteristics of the study sample

Anxiety Levels / Variables	t. TEST analysis			
	t	df	P. value	Sig.
Gender	-3.599	998	.000	**H.S.**
Have children	-3.170	998	.002	**H.S.**
Interested in work of nursing	-1.544	998	.123	**N.S.**
Personal protection equipment available in the workplace	-2.300	998	.022	**S**
Have you previously infected by COVID-19	-0.739	998	.460	**N.S.**

It appears from the table that there is a significant relationship between anxiety levels and gender, have children, personal protection equipment available in the workplace at $p \leq 0.05$. It appears from this that the table his not found a significant relationship between anxiety levels and interested in work of nursing, have you previously infected by COVID-19 at $p \leq 0.05$.

Table (4-13): Relationship between Stress Levels and demographic characteristics of the study sample

Stress / Variables	Sources of Variance	One Way ANOVA analysis			
		df	F	P. value	Sig.
Age	Between Groups	3	7.434	.000	H.S.
	Within Groups	996			
	Total	999			
Marital status	Between Groups	3	4.866	.002	H.S.
	Within Groups	996			
	Total	999			
Education level	Between Groups	3	2.267	.049	S.
	Within Groups	996			
	Total	999			
Location	Between Groups	14	1.292	.205	N.S.
	Within Groups	985			
	Total	999			
No. of children	Between Groups	9	1.768	.040	S.
	Within Groups	990			
	Total	999			
Years of work in the ministry of health	Between Groups	5	2.900	.013	S.
	Within Groups	994			
	Total	999			
Years of experience in the Nursing field	Between Groups	6	3.007	.006	H.S.
	Within Groups	993			
	Total	999			
Workplace in the health institution	Between Groups	4	.442	.778	N.S.
	Within Groups	995			
	Total	999			
How severe was the infection with COVID-19	Between Groups	3	.653	.581	N.S.
	Within Groups	996			
	Total	999			

The table above found a significant relationship between stress levels and age, marital status, education level, No. of children, years of work in the ministry of health, and years of experience in the nursing field at $p \leq 0.05$. It appears from this table that there is no significant relationship between stress levels and location,

workplace in the health institution and how severe was the infection with COVID-19 at $p \leq 0.05$.

Table (4-14): Relationship between Stress Levels and demographic characteristics of the study sample

Stress Levels / Variables	t. TEST analysis			
	t	df	P. value	Sig.
Gender	-3.695	998	.000	**H.S.**
Have children	-3.154	998	.002	**H.S.**
Interested in work of nursing	-1.732	998	.049	**S.**
Personal protection equipment available in workplace	-2.326	998	.020	**S.**
Have you previously infected by COVID-19	-0.784	998	.433	**N.S.**

The table above found a significant relationship between stress levels and gender, having children, interest in the work of nursing, personal protection equipment available in the workplace at $p \leq 0.05$. It appears from this that the table his not found a significant relationship between stress levels and have you previously infected by COVID-19 at $p \leq 0.05$.

Table (4-15): Relationship between Quality of life Levels and demographic characteristics of the study sample

Quality of Life Levels / Variables	Sources of Variance	One Way ANOVA analysis			
		df	F	P. value	Sig.
Age	Between Groups	3	6.997	.000	H.S.
	Within Groups	996			
	Total	999			
Marital status	Between Groups	3	5.558	.001	H.S.
	Within Groups	996			
	Total	999			
Education level	Between Groups	3	2.689	.045	S.
	Within Groups	996			
	Total	999			
Location	Between Groups	14	2.476	.002	H.S.
	Within Groups	985			
	Total	999			
No. of children	Between Groups	9	2.105	.027	S.
	Within Groups	990			
	Total	999			
Years of work in the ministry of health	Between Groups	5	2.674	.021	S.
	Within Groups	994			
	Total	999			
Years of experience in the Nursing field	Between Groups	6	3.860	.001	H.S.
	Within Groups	993			
	Total	999			
Workplace in the health institution	Between Groups	4	2.323	.045	S.
	Within Groups	995			
	Total	999			
How severe was the infection with COVID-19	Between Groups	3	1.295	.275	N.S.
	Within Groups	996			
	Total	999			

It appears from this that the table his found a significant relationship between quality of life levels and age, marital status, education level, location, No. of children, years of work in the ministry of health, experienced years in the field of nursing and workplace in the health institution at $p \leq 0.05$. The table his not found a significant relationship between quality of life levels and how severe was the infection with COVID-19 at $p \leq 0.05$.

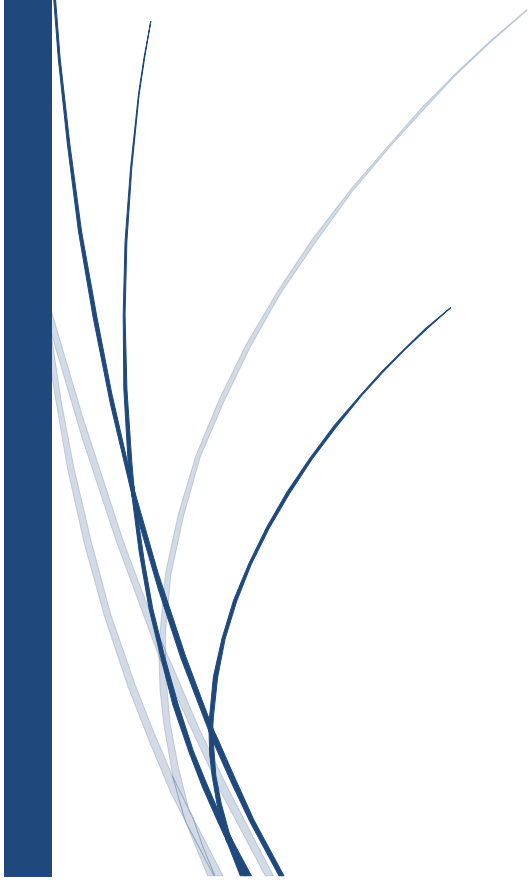
Table (4-16): Relationship between Quality of life Levels and demographic characteristics of the study sample

Quality of Life / Variables	t. TEST analysis			
	t	df	P. value	Sig.
Gender	-3.672	998	.000	**H.S.**
Have children	-3.263	998	.001	**H.S.**
Interested in work of nursing	-1.267	998	.206	**N.S.**
Personal protection equipment available in the workplace	-2.133	998	.033	**S**
Have you previously infected by COVID-19	-1.461	998	.144	**N.S.**

The table above his found a significant relationship between quality of life levels and gender, having children, personal protection equipment available in the workplace at $p \leq 0.05$. It appears from this that the table his not found significant relationship between quality of life levels and interested in work of nursing, have you previously infected by COVID-19 at $p \leq 0.05$.

Chapter Five

Discussion of the Results



Chapter Five

Discussion of the Results

This chapter shows a systematic interpretation and meaningfully derived discussion of the findings with the strengthening of the accessible relevant studies. Since this disease is a new and newly spread disease all over the world, for this reason this research is considered one of the original researches, especially in nursing, because nurses have not previously studied the subject.

5.1. The Demographic Data of the Study Sample Table (4-1)

5.1.1. Gender

The findings of this study show that (53.3%) of the sample were male and (46.7%) were female. Nursing in Iraq was limited to women, and in 1977 the first male course was accepted in the College of Nursing, and since that time males have become more than females in nursing. As the research has reached this result, there are other researchers who found similar results in their research such as AlAteeq et al., 2020 has found that (63%) of the study sample were males, and Kim & Kang, 2020 found that (53%) of the study sample were males.

5.1.2. Age

According to the age, the results indicate that (61.9%) of the sample were from the age group (20-29) year, in recent years, a large number of nursing colleges have been opened in all governorates of Iraq due to the shortage of nurses in hospitals, so found this age group (20-29) years more than other ages. As the research has reached this result, there are other researchers who found similar results in their research such as Khanal et al.,

2020 the found that (68%) of the study sample were age group (20-29) years and Elhadi et al., 2020 have found that (66%) of the study sample were age group (20-29) years.

5.1.3. Marital Status

Concerning marital status, (56.6%) of the nurses in the study were married. Iraqi society, like other Arab societies, prefers early marriage, especially when the person has finished his studies and has a job therefore, the result found more married nurses. As the research has reached this result, there are other researchers who found similar results in their research such as Abu-Snieneh, 2021 who found that (61%) of the study sample were married and Çelmeçe & Menekay, 2020 who have found that (54%) of the study sample were married.

5.1.4. Education Level

Concerning academic achievement, the study has found that (41.3%) of the nurses have Bachelor's degrees and (33.9%) have diploma degrees. Because the nurses are graduated from technical institutes since nursing colleges are newly established. As the research has reached this result, there are other researchers who found similar results in their research such as Jemal et al., 2020 the found that (40%) of the study sample were Bachelor's degree and Shamblaw et al. 2021 have found that (43%) of the study sample were Bachelor's degree.

5.1.5. Location

Concerning location, the nurses in the study were working in Babylon and Baghdad health departments (19.1% and 10.3% respectively). This result may be because the researcher and more of his friends work in Babylon and Baghdad health departments and use the snowball method. There are no studies supporting the result due to the lack of similar studies in

Iraq. As the research has reached this result, there are other researchers who found similar results in their research such as Moradi et al., 2021 and Pieh et al., 2020.

5.1.6. Have Children

Concerning having children, the study has found that (53 %) of the sample have no children. This result may be because most of them were newly married. As the research has reached this result, there are other researchers who found similar results in their research such as Hendy et al., 2021 have found that (55%) of the study sample had no children and Tercan et al., 2020 found that (69%) of the study sample had no children.

5.1.7. Number of children

Concerning the number of children, (12.7%) of nurses in the study group have one child. Because the sample was still young and newly married. As the research has reached this result, there are other researchers who have found similar results in their research such as Zhu et al., 2020 who have found that (48%) of the study sample had one child, and Cai et al., 2020 found that (49%) of the study sample had one child.

5.1.8. Years of work in the Ministry of Health

About years of work in the ministry of health, the study has found that (36.8%) of the sample study of work duration in the ministry of health between (7-12) year. Because of the expansion of recruitment in the nursing profession after the change of the system in Iraq and the increase in the demand for the profession. As the research has reached this result, there are other researchers who found similar results in their research such as Elhadi et al., 2020 found that (26%) of the study sample were work duration in the ministry of health between (7-12) year and Abu-Snieneh, 2021 who his

found that (31%) of the study sample were work duration in the ministry of health between (7-12) year.

5.1.9. Experience Years in the Field of Nursing

Concerning experience years in the field of nursing, the study has found that (71.6%) of the study sample have nursing experience between (1-6) year. Because of the emphasis of the Ministry of Health in the last decade not to assign nurses to anything other than the nursing profession, as the research has reached this result, there are other researchers who found similar results in their research such as Jemal et al., 2020 who found that (42%) of the study sample had nursing experience between of (1-6) year and Suryavanshi et al., 2020 have found that (47%) of the study sample had the nursing experience between of (1-6) year.

5.1.10. Interested in work of nursing

Concerning interest in the work of nursing, the study has found that (83.2%) of the nurses were interested in the work of nursing. Because the nursing profession is one of the important professions that performs a high moral and professional duty. Therefore, the interest in nursing work has increased . As the research has reached this result, there are other researchers who found similar results in their research such as Shoja et al., 2020 who found that (79%) of the study sample were the nurses interested in work of nursing, and Khodadadi et al., 2016 who found that (92%) of the study sample were the nurses interested in work of nursing.

5.2. Distribution of the Sample according to Answers about COVID-19 Table (4-2)

5.2.1. Workplace in the Health Institution

Concerning workplace in the health institution, the study has found that (58.1%) of the nurses' workplaces in other places such as surgical,

children, and women's wards. Because of the large sample size, the small number of working numbers in the isolation wards, and the covid-19 hospitalization, and as the research has reached this result, there are other researchers who found similar results in their research such as Aksoy & Koçak, 2020 who found that (80%) of the study sample were the nurses' workplace in other places and Temsah et al., 2020 who found that (44%) of the study sample were the nurses' workplace in other places.

5.2.2. Personal Protection Equipment available in Workplace

About personal protection equipment available in the workplace, the study found that (75.1%) of the sample have sufficient personal protection equipment for nurses. Due to the efforts of the ministry of health and the donations of international and civil society organizations and families, most of the means of personal protection equipment have been provided to workers in the ministry of health, and as the research has reached this result, there are other researchers who found similar results in their research such as Chowdhury et al., 2021 who found that (54%) of the study sample had sufficient personal protection equipment for nurses and Mattila et al., 2021 who found that (70%) of the study sample had sufficient personal protection equipment for nurses.

5.2.3. Previously Infected by COVID-19

About previously infected by COVID-19 in the workplace, the study has found that (53.1%) of nurses were infected by COVID-19. Because of the severity of the epidemic and unknown methods of transmission, and as the research has reached this result, there are other researchers who found similar results in their research such as Que et al., 2020 who found that (50%) of the study sample were infected by COVID-19 and Zhu et al., 2020 who found that (70%) of the study sample were infected by COVID-19.

5.2.4. Severe was the Infection with COVID-19

Concerning how severe was the infection with COVID-19, the study has found that (25.2%) of nurses have moderate level severity infected with COVID-19. Because of the autoimmunity, the rigidity of the position, and the courage of most nurses, they had a primary role in reducing the COVID-19 infection severity, and as the research has reached this result, there are other researchers who found similar results in their research such as found that (20%) of the study sample were infected by COVID-19 and El-Sokkary et al., 2021 who found that (30%) of the study sample had moderate level severity infected with COVID-19.

5.3. Assessment of Mental health status levels for study sample Table (4-3)

5.3.1. Depression levels

The result of the study shows that (23%) of the nurses have moderate depression levels, this result may be because, the epidemiology of the disease is severe and it can be transmitted easily from the patient to the nurses. Because the nurses have more contact with the patients when they give care to them, which make them more vulnerable to get sick, so the result found them feel depressed, and as the research has reached this result, there are other researchers who found similar results in their research such as Aoun et al., 2020 who found that (27%) of the study sample had moderate depression levels, and Elkholy et al., 2020 who found that (23%) of the study sample had moderate depression levels.

5.3.2. Anxiety Levels

The result of the study shows that (25.8%) of the nurses have extremely severe anxiety levels, this result may be because COVID-19 pandemic and lack of personal protective equipment for nurses, and

inefficiency of the Iraqi health system in the confrontation of the pandemic. This makes the level of anxiety higher in all domains and this leads to increase anxiety in nurses, which can affect their nursing care during COVID-19 to patients and may make them more fatigue and the instability, and as the research has reached this result, there are other researchers who found similar results in their research such as Labrague & De Los Santos, 2020 who found that (37%) of the study sample had extremely severe anxiety levels and Alnazly et al., 2021 who found that (60%) of the study sample had extremely severe anxiety levels.

5.3.3. Stress Levels

The result of the study shows that (17.1%) of the nurses have severe stress levels because of the lack of information about the COVID-19 disease and the ability to spread it among nurses, and the lack of an effective vaccine or treatment. Stress for nurses might have an impact on patient care during COVID-19, making them tired and unstable. In all of the domains, stress levels were higher than those of other nurses, and as the research has reached this result, there are other researchers who found similar results in their research such as Al Maqbali & Al Khadhuri, 2021 who found that (75%) of the study sample had severe stress levels and found that (33%) of the study sample had severe stress levels.

5.4. Overall Mental Health Levels Status Table (4-4)

Concerning assessment mental health levels shows that the majority of nurses have a mild and moderate change in mental health levels status because of the quick widespread of the infection, establishment challenges for health systems, and forced healthcare employees to be treated with work and nonwork pressure, including lack of personal protection supplies, deaths, and morbidity related COVID-19, fearless of bring the virus to a

homeowner, to family individuals and loosing coworkers reason of the pandemic. These reasons led to brief - and longer-term effects on the mental health of nurses, and as the research has reached this result, there are other researchers who found similar results in their research such as Kazmi et al ., 2020 who found the study sample had a mild and moderate change in mental health levels, and Kang et al., 2020 who found that (22%) of the study sample had a moderate change in mental health levels.

5.5. Assessment of study sample regarding Quality-of-Life levels Table (4-5)

The result of the study shows that (44%) of the sample have a good level of quality of life and 36.8 % of the sample have a very good level of quality of life and (11.3%) fair level in quality of life. Results proposed certain respondents were unhappy with their quality of life. The primary effective variables were long hours of working, nurses' facilities are lacking, failure to strike a balance between work and family obligations, vacation time for nurses and their families is insufficient, lack of staffing, supervised practices and management, a lack of opportunity for professional development and an inappropriately working conditions in requirements of the level of safety form COVID-19 disease, patient care supplies, and equipment, as well as the community's perception of nursing and an insufficient income, are all important concerns, all these factors lead to a decrease of levels on the nurses' quality of life. Some respondents were well satisfied with their living quality; During COVID-19, the majority of nurses were content with their coworkers, happy to be first-line defense, and felt a feeling of belonging in their employment, and as the research has reached this result, there are other researchers who found similar results in their research such as Farrokhian et al., 2016 who found that the study sample had

a moderate level in quality of life for nurses, and Shamblaw et al., 2021 who found that the study sample had a good level in quality of life and better quality of life at baseline but not overtime.

5.6. Regression analysis for the Impact of COVID-19 on Mental Health Levels Status Nurses Table (4-6)

5.6.1. Relationship of COVID-19 and Depression Levels among Nurses

The study results show that there was no significant relationship between COVID-19 and the nurses' depression levels. Because nurses are more susceptible to infection with COVID-19 than the public and because of the job hardship. A significant impact of COVID-19 Health facilities has been overwhelmed with COVID-19 patients who need treatment in hospital and care of intensive. The high threats of infection and an exhausting work environment may help to the increased impacts on mental health between nurses and mental health outcomes among health workers affect their work performance. Perceived higher risk and having to stay in quarantine during an epidemic may not only have a short-term effect, and as the research has reached this result, there are other researchers who found similar results in their research such as Si et al., 2020 who found that the study sample were no significant relationship between COVID-19 and depression levels for nurses, and Chowdhury et al., 2021 who found that the study sample were no significant relationship between COVID-19 and depression levels for nurses.

5.6.2. Relationship of COVID-19 and Anxiety Levels among Nurses

The result of the study shows that there was a significant relationship among COVID-19 and anxiety levels for nurses. at the value of probability (0.040). In our study, lack of protective procedures was considerably related to higher odds of stress and depressive symptomatic between nurses. Lack of

protective measures including personal protective equipment can result in not promised work situations, feelings of instability, and high susceptibility to infection. Since a major ratio of COVID-19 cases is without symptoms, the absence of an adequate feeling of protection between nurses may increase the psychological problem and effect mental health among them, and as the research has reached this result, there are other researchers who found similar results in their research such as Tercan et al., 2020 who found that the study sample was a significant relationship between COVID-19 and anxiety levels for nurses at the value of probability (0.000) and Lai et al., 2020 who found that the study sample was a significant relationship between COVID-19 and anxiety levels for nurses at the value of probability (0.03).

5.6.3. Relationship of COVID-19 and Stress levels among Nurses

The findings of the study show there is a significant relationship among COVID-19 and stress levels for nurses at the value of probability (0.045). This difference is partially explained by the different isolation measures that countries have implemented to limit the spread of COVID-19. In addition, demographics and lifestyles with differing norms, beliefs, and cultural values between countries may influence stress among nurses, and as the research has reached this result, there are other researchers who found similar results in their research such as Cui et al., 2021 who found that the study sample was a significant relationship between COVID-19 and stress levels for nurses at the value of probability (0.001) and Cui et al., 2021 who found that the study sample was a significant relationship among COVID-19 and stress levels for nurses at the value of probability (0.001).

5.7. Regression analysis for the COVID-19 on Quality of Life Table (4-7)

The result of the study shows there is a significant relationship among COVID-19 and nurses' quality of Life at the value of probability (0.029). Socio-demographic factors such as age, gender, marital status, health care environment, workplace, shift work, lack of personal protection equipment in hospitals and health isolation places, all these factors impact on the quality of life for nurses, and as the research has reached this result, there are other researchers who found similar results in their research such as Tomar, et al., 2020 who found that the study sample was a significant relationship between COVID-19 and quality of life at the value of probability (0.050). and Hassanpour et al., 2020 who found that the study sample was a significant relationship among COVID-19 and quality of life at the value of probability (0.036).

5.8. Regression analysis for the Mental Health on Quality of life Table (4-8)

The result of the study shows there is a significant relationship among mental health and their quality of life for nurses at the value of probability (0.000). Moderate to severe depression, anxiety and stress were both independently associated with low quality of life, which was reported in some of our respondents. The public is not the only ones at risk of psychological distress during this pandemic in the rapidly expanding phase of the COVID-19 pandemic due to the increased risk of exposure to the virus, frontline doctors, nurses, and health care workers fear they may contract COVID-19 themselves. They are concerned about taking the virus home and passing it on to loved ones and family members - elderly parents,

newborns, and relatives. Increased stress levels among nurses when dealing with patients who are unwilling to cooperate or fail to adhere to safety instructions, and feelings of helplessness when dealing with critically ill patients, in the context of limited intensive care beds and resources. The use of protective equipment for long periods leads to breathing difficulties and limited access to toilets and water, which leads to subsequent physical and mental fatigue. All of these factors lead to a change in the psychological state of nurses and thus their impact on the quality of life of nurses. The psychological and mental state is one of the most important aspects in achieving well-being in the quality of life, and as the research has reached this result, there are other researchers who found similar results in their research such as Suryavanshi et al., 2020 who found that the study sample was a significant relationship among mental health and their quality of life for nurses at the value of probability (0.01) and An et al., 2020 who found that the study sample was a significant relationship among mental health and their quality of life for nurses at the value of probability (0.001).

5.9. Relationship between Depression Levels and demographic characteristics of the Study Sample Tables (4-9, 4-10)

5.9.1. Gender

In terms of gender, the study's findings show found a statistically significant relationship among depression levels and gender for nurses. (0.000). When comparing male and female nurses, the result found that the high percentage of depression levels among female nurses, because women are more sympathetic to patients, feeling insomnia, thinking about illness and fear of the unknown future, addition the physiological composition of women playing a significant role in not bearing the difficulties of life, and as the research has reached this result, there are other researchers who found

similar results in their research such as AlAteeq et al., 2020 who found that the study sample was a significant relationship between depression level and gender for nurses at the probability value (0.001) and Şahin et al., 2020 who found that the study sample was a significant relationship among depression level and gender of nurses at the probability value (0.001).

5.9.2. Age

About age, the findings of the study refer that there is a significant relationship among depression levels and the age of nurses at the probability value (0.000). In comparison between the age groups participating in the sample, the youth group was the most, and this leads to a relationship between this group and depression because this group are newly appointed or lack experience in dealing with such a pandemic, and as the research has reached this result, there are other researchers who found similar results in their research such as Al Maqbali & Al Khadhuri, 2021 who found that the study sample was a significant relationship among depression levels and age of nurses at the probability value (0.007) and Abu-Snieneh, 2021 who found that the study sample was a significant relationship among depression levels and age of nurses at the probability value (0.001).

5.9.3. Marital Status

About marital status, the study of results the refers found significant relationship among depression levels and the marital status for nurses at the probability value (0.003). More than half of the sample are married. The nurses married feel fear for their families and children from spreading the disease to them, as well as the length of work hours, physical and psychological fatigue, and stay away from their families and friends. All of these reasons lead to an increase in depression levels among nurses, and as the research has reached this result, there are other researchers who found

similar results in their research such as Al Maqbali & Al Khadhuri, 2021 who found that the study sample was a significant relationship between depression levels and marital status for nurses at the probability value (0.024) and Şahin et al., 2020 who found that the study sample was a significant relationship between depression levels and marital status for nurses at the probability value (0.024).

5.9.4. Education Level

About education level, the findings of the study refer that there is a significant relationship among depression levels and the education level for nurses at the probability value (0.047). Because of the modernity of nursing colleges in Iraq, a high percentage of bachelor's degrees appeared, and this linked to the lack of experience and expertise in facing pandemic lead to increase depression levels, and as the research has reached this result, there are other researchers who found similar results in their research such as Chowdhury et al., 2021 who found that the study sample was a significant relationship between depression level and education levels for nurses at the probability value (0.030) and Xing et al., 2020 who found that the study sample was a significant relationship between depression levels and education level for nurses at the probability value (0.01).

5.9.5. Location

About the location, the study findings indicate found a significant relationship among depression levels and the location for nurses at the probability value (0.011). Because of the deterioration of the health system in central and southern Iraq, which negatively affects the mental health of nurses, and as the research reached this result, there are other researchers who found similar results in their research such as Lai et al., 2020 who found that the study sample was a significant relationship between

depression levels and location for nurses at the probability value (0.001) and Jemal et al., 2020 who found that the study sample was a significant relationship between depression levels and location for nurses.

5.9.6. Have Children

Concerning having the children, the result of the study has found a significant relationship among depression levels and having the children at the probability value (0.001). Quarantine and its repercussions and the long working period of nurses inside health institutions and their distance from their families and children were one of the reasons for changing the psychological state of nurses, and as the research has reached this result, there are other researchers who found similar results in their research such as Abu-Snieneh, 2021 who found that the study sample was a significant relationship between depression levels and have children at the probability value (0.001) and Tercan et al., 2020 who found that the study sample was a significant relationship between depression levels and have children at the probability value (0.04).

5.9.7. Number of children

Concerning the number of children, the findings of the study have found significant relationship among depression levels and the number of the children at the probability value (0.038). The increase in the number of children leads to a lot of thinking, and preoccupation with their lives and their daily needs during the quarantine period, and this thinking leads to increased anxiety and worry and changes the psychological state of the nurses, and as the research has reached this result, there are other researchers who found similar results in their research such as Zhu, et al., 2020 who found that the study sample was a significant relationship among depression levels and the number of children at the probability value (0.001) and Zhu et

al., 2020 who found that the study sample was a significant relationship between depression levels and the number of children at the probability value (0.001).

5.9.8. Years of work in the ministry of health

Concerning years of work in the ministry of health, the result of the study indicates that there is a significant relationship among depression levels and the years of work in the ministry of health at the probability value (0.031). The number of years of service in the Ministry of Health plays a major role in limiting changes in the psychological state of nurses by acquiring practical experience and skills in how to deal with crises, and as the research has reached this result, there are other researchers who found similar results in their research such as Zhu et al., 2020 who found that the study sample was a significant relationship between depression levels and years of work in the ministry of health at the probability value (0.001) and Jemal et al., 2020 who found that the study sample was a significant relationship between depression levels and years of work in the ministry of health.

5.9.9. Experience Years in the Field of Nursing

Concerning experience years in the field of nursing, the result of the study shows that there is a significant relationship among depression levels and the years of experience in the nursing field at the probability value (0.009). Increased experiences and practical practices in the field of nursing reduce the severity of the change in the psychological state of nurses, and as the research reached this result, there are other researchers who found similar results in their research such as Abu-Snieneh, 2021 who found that the study sample was a significant relationship between depression levels and the years of experience in the nursing field at the probability value

(0.001) and Al Maqbali & Al Khadhuri, 2021 who found that the study sample was a significant relationship between depression levels and the years of experience in the nursing field at the probability value (0.000).

5.9.10. Interested in work of nursing

Concerning interest in the work of nursing, the result of the study shows that there is a significant relationship among depression levels and the interest in the work of nursing at the probability value (0.050). The interest in work in the nursing profession increases the strength and sense of belonging among nurses and leads to giving them confidence in dealing with COVID-19 patients, and as the research has reached this result, there are other researchers who found similar results in their research such as Shoja et al., 2020 who found that the study sample was a significant relationship between depression levels and interest in work of nursing at the probability value (0.031) and Khodadadi et al., 2016 who found that the study sample was a significant relationship between depression levels and interested in work of nursing at the probability value (0.040).

5.9.11. Personal Protection Equipment available in Workplace

Concerning personal protection equipment available in the workplace, the result of the study shows that there is a significant relationship among depression levels and the personal protective equipment available in the workplace at the probability value (0.041). The lack of personal protective equipment and its unavailability in the time of COVID-19 contributed to stress, anxiety, and a change in the psychological state of nurses, and as the research has reached this result, there are other researchers who found similar results in their research such as Jemal et al., 2020 who found that the study sample was a significant relationship between depression levels and the personal protective equipment available in the workplace, and

Chowdhury et al., 2021 who found that the study sample was a significant relationship between depression levels and the personal protective equipment available in the workplace at the probability value (0.001).

5.10. Relationship between Anxiety and demographic characteristics of the Study Sample Tables (4-11, 4-12)

5.10.1. Gender

About gender, the result of the study shows that there is a significant relationship among anxiety levels and the gender of nurses at the probability value (0.000). The lack of skills, knowledge, experience and marital life conditions in the time of the pandemic for female nurses may have an impact on the increased prevalence of stress, anxiety, and depression among nurses, and as the research has reached this result, there are other researchers who found similar results in their research such as Jemal et al., 2020 who found that the study sample was a significant relationship among anxiety levels and the gender of nurses and Şahin et al., 2020 who found that the study sample was a significant relationship among anxiety levels and the gender of nurses at the probability value (0.001).

5.10.2. Age

Concerning the age, the result of the study shows that there is a significant relationship among anxiety levels and the age of nurses at the probability value (0.000). In comparison between the age groups participating in the sample, the youth group was the most, and this leads to a relationship between this group and anxiety levels because this group are newly appointed or lack experience in dealing with such a pandemic, and as the research has reached this result, there are other researchers who found similar results in their research such as Xing et al., 2020 who found that the study sample was a significant relationship among anxiety levels and the age

of nurses at the probability value (0.007) and Şahin et al., 2020 who found that the study sample was a significant relationship among anxiety levels and the age of nurses at the probability value (0.004).

5.10.3. Marital Status

Concerning marital status, the result of the study shows that there is a significant relationship among anxiety levels and the marital status of nurses at the probability value (0.005). More than half of the sample are married. Married nurses feel fear and anxiety for their families and children due to the spread of the disease to them, the long working hours, physical and psychological fatigue, and being away from their families and friends. All of these reasons lead to increased levels of anxiety and fear among nurses, and as the research has reached this result, there are other researchers who found similar results in their research such as Zhu et al., 2020 who found that the study sample was a significant relationship between anxiety levels and the status of marital of nurses at the probability value (0.001) and Çelmeçe & Menekay, 2020 who found that the study sample was a significant relationship among anxiety levels and the marital status of nurses at the probability value (0.001).

5.10.4. Have Children

About having the children, the result of the study has found a significant relationship among anxiety levels and the have children of nurses at the probability value (0.002). Schools closed through epidemic and the kids to remain house. The care and education of the nurse's children were hampered by this scenario. The increase in anxiety levels of nurses' parents is an expected effect of such stressful life events, and as the research has reached this result, there are other researchers who found similar results in their research such as Çelmeçe & Menekay, 2020 who found that the study

sample was a significant relationship among anxiety levels and the have children of nurses at the probability value (0.001) and Tercan et al., 2020 who found that the study sample was a significant relationship among anxiety levels and the have children of nurses at the probability value (0.023).

5.10.5. Number of children

Concerning the number of children, the results of the study have found a significant relationship among anxiety levels and the number of children at the probability value (0.043). During the quarantine time, the high number of children requires a lot of attention and preoccupation with their lives and everyday requirements, which causes increased anxiety and fear among the nurses, and as the research has reached this result, there are other researchers who found similar results in their research such as Zhu, et al., 2020 who found that the study sample was a significant relationship among anxiety levels and the number of children at the probability value (0.001) and Zhu et al., 2020 who found that the study sample was a significant relationship among anxiety levels and the number of children at the probability value (0.001).

5.10.6. Years of Work in Ministry of Health

Concerning years of work in the ministry of health, the findings of the studying have found a significant relationship among anxiety levels and the years of work in the ministry of health at the probability value (0.009). By gaining practical knowledge and abilities in how to cope with crises, the number of years of employment in the Ministry of Health has an essential role in reducing changes in the psychological condition of nurses, and as the research has reached this result, there are other researchers who found similar results in their research such as Zhu et al., 2020 who found that the

study sample was a significant relationship among anxiety levels and the years of work in the ministry of health at the probability value (0.001) and Elhadi et al., 2020 who found that the study sample was a significant relationship among anxiety levels and the years of work in the ministry of health at the probability value (0.001).

5.10.7. Experience Years in the Field of Nursing

Concerning experience years in the field of nursing, the findings of the studying have found a significant relationship among anxiety levels and the years of experience in the nursing field at the probability value (0.002). Nurses' psychological changes are less severe when they have more experience and actual practices in the field of nursing, and as the research has reached this result, there are other researchers who found similar results in their research such as Abu-Snieneh, 2021 who found that the study sample was a significant relationship between anxiety levels and years of experience in the nursing field at the probability value (0.003) and Mattila et al., 2021 who found that the study sample was a significant relationship between anxiety levels and years of experience in the nursing field at the probability value (0.001).

5.10.8. Personal Protection Equipment available in Workplace

Concerning protection equipment available in the workplace, the findings of the studying have found a significant relationship among anxiety levels and the protective equipment available in the workplace at the probability value (0.022). The nurses who had enough availability of personal protective equipment in units had less anxiety then those who experienced a shortage of PPE, and as the research has reached this result, there are other researchers who found similar results in their research such as Mattila et al., 2021 who found that the study sample was a significant

relationship between anxiety levels and the protective equipment available in the workplace at the probability value (0.001) and Chowdhury et al., 2021 who found that the study sample was a significant relationship between anxiety levels and the protective equipment available in the workplace at the probability value (0.005).

5.11. Relationship between Stress and demographic characteristics of the Study Sample Tables (4-13, 4-14)

5.11.1. Gender

About gender, the findings of the studying have found a significant relationship among stress levels and the gender for nurses at the probability value (0.000). The lack of skills, knowledge, experience and marital life conditions in the time of the pandemic for female nurses may have an impact on the increased prevalence of stress, anxiety, and depression among nurses, and as the research has reached this result, there are other researchers who found similar results in their research such as Jemal et al., 2020 who found that the study sample was a significant relationship among stress levels and the gender for nurses and Alnazly et al., 2021 who found that the study sample was a significant relationship among stress levels and the gender for nurses at the probability value (0.001).

5.11.2. Age

Concerning age, the findings of the studying have found a significant relationship among stress levels and the age for nurses at the probability value (0.000). In comparison between the age groups participating in the sample, the youth group was the most, and this leads to a relationship between this group and stress because this group are newly appointed or lack experience in dealing with such a pandemic, and as the research has reached this result, there are other researchers who found similar results in their

research such as Jemal et al., 2020 who found that the study sample was a significant relationship among stress levels and the age for nurses and Alnazly et al., 2021 who found that the study sample was a significant relationship among stress levels and the age for nurses at the probability value (0.000).

5.11.3. Marital Status

Concerning marital status, the findings of the studying have found significant relationship among stress levels and the marital status for nurses at the probability value (0.002). More than half of the sample are married. Married nurses feel fear and stress for their families and friends due to the infection of the disease to them, the long working hours, physical and psychological fatigue, and being away from their families and friends. All of these reasons lead to increased levels of stress and fear among nurses, and as the research has reached this result, there are other researchers who found similar results in their research such as Jemal et al., 2020 who found that the study sample was a significant relationship among stress levels and status of marital for nurses and Alnazly et al., 2021 who found that the study sample was a significant relationship between stress levels and marital status for nurses at the probability value (0.012).

5.11.4. Education Level

About education level, the findings of the studying have found a significant relationship among stress levels and the education level for nurses at the probability value (0.049). Because of the modernity of nursing colleges in Iraq, a high percentage of bachelor's degrees appeared and related to the lack of experience and expertise in facing the pandemic, which leads to increased levels of tension and fear of the unknown in the time of the pandemic, and as the research has reached this result, there are other

researchers who found similar results in their research such as Chowdhury et al., 2021 who found that the study sample was a significant relationship between stress levels and education level for nurses at the probability value (0.001) and Zhu et al., 2020 who found that the study sample was a significant relationship between stress levels and education level for nurses at the probability value (0.001).

5.11.5. Have Children

About having the children, the findings of the studying have found significant relationship among stress levels and the have the children at the probability value (0.002). During the epidemic, schools were shuttered and students were instructed to stay at home. Parents of nurses who are unable to obtain authorization from their employers because they must work have had problems finding someone to care for their children, some babysitters have departed their employment, and working nurses' difficulties have worsened. Such stressful life events are predicted to induce an increase in the stress levels of nurses, and as the research has reached this result, there are other researchers who found similar results in their research such as Çelmeçe & Menekay, 2020 who found that the study sample was a significant relationship between stress levels and have children at the probability value (0.013) and Zhu et al., 2020 who found that the study sample was a significant relationship between stress levels and have children at the probability value (0.001).

5.11.6. Number of children

About the number of children, the findings of the studying have found significant relationship among stress level and the number of children for nurses at the probability value (0.040). During the quarantine duration, the large number of children causes a lot of attention and concern with their

lives and daily requirements, and this thinking causes heightened stress and panic, influencing the nurses' psychological condition , and as the research has reached this result, there are other researchers who found similar results in their research such as Zhu, et al., 2020 who found that the study sample was a significant relationship between stress levels and the number of children for nurses at the probability value (0.001) and Zhu et al., 2020 who found that the study sample was a significant relationship between stress levels and a number of children for nurses at the probability value (0.001).

5.11.7. Years of work in the ministry of health

Concerning years of work in the ministry of health, the findings of the studying have found significant relationship among stress levels and the years of work in the ministry of health at the probability value (0.013). Years of employment in the Ministry of Health are crucial in lowering changes in nurses' psychological states through gaining practical experience and abilities in dealing with crises , and as the research has reached this result, there are other researchers who found similar results in their research such as Zhu et al., 2020 who found that the study sample was a significant relationship among stress levels and the years of work in the ministry of health at the probability value (0.001) and Alnazly et al., 2021 who found that the study sample was a significant relationship among stress levels and the years of work in the ministry of health at the probability value (0.000).

5.11.8. Experience Years in the Field of Nursing

Concerning experience years in the field of nursing, the findings of the studying have found a significant relationship among stress levels and the years of experience in the nursing field at the probability value (0.006). Nurses' psychological changes are less severe when they have more experience and technical practices in the field of nursing, and as the research

has reached this result, there are other researchers who found similar results in their research such as Al Maqbali & Al Khadhuri, 2021 who found that the study sample was a significant relationship among stress levels and the years of experience in the nursing field at the probability value (0.000) and Cui et al., 2021 who found that the study sample was a significant relationship among stress levels and the years of experience in the nursing field at the probability value (0.014).

5.11.9. Interested in work of nursing

Concerning interest in the work of nursing, the findings of the studying have found a significant relationship among stress levels and the interest in the work of nursing at the probability value (0.049). Nurses gain confidence in dealing with COVID-19 patients because of their interest in working in the nursing profession, which enhances their strength and sense of belonging, and as the research has reached this result, there are other researchers who found similar results in their research such as Cui et al., 2021 who found that the study sample was a significant relationship among stress levels and the interest in work of nursing at the probability value (0.001) and Khodadadi et al., 2016 who found that the study sample was a significant relationship among stress levels and the interested in work of nursing at the probability value (0.02).

5.11.10. Personal Protection Equipment available in Workplace

Concerning personal protection equipment available in the workplace, the findings of the studying have found significant relationship among stress level and the personal protective equipment available in the workplace at the probability value (0.020). The availability of personal protective equipment for nurses contributes to reducing the sources of stress due to the transmission of the pandemic to nurses and families, which helps in

improving the overall stress levels of the nurses, and as the research has reached this result, there are other researchers who found similar results in their research such as Hendy et al., 2021 who found that the study sample was a significant relationship between stress levels and the personal protective equipment available in the workplace at the probability value (0.000) and Chowdhury et al., 2021 who found that the study sample was a significant relationship between stress levels and the personal protective equipment available in the workplace at the probability value (0.001).

5.12. Relationship between Quality of Life and demographic characteristics of the Study Sample Tables (4-15, 4-16)

5.12.1. Gender

Concerning gender, the findings of the studying have found significant relationship among quality-of-life levels and gender for nurses at the probability value (0.000). Male nurses had higher levels overall compared to female nurses, who had lower levels overall. These results emerged due to the Iraqi culture and its influence on the patriarchal culture that follows the traditional ideological habits of male superiority. Thus, the social behaviors pattern of Iraq refers to the social structure in which men dominate over women. This affects the quality of life over the sex of nurses, and as the research has reached this result, there are other researchers who found similar results in their research such as Çelmeçe & Menekay, 2020 who found that the study sample was a significant relationship among quality of life levels and the gender for nurses at the probability value (0.011) and Kim & Kang, 2020 who found that the study sample was a significant relationship among quality of life levels and the gender for nurses at the probability value (0.001).

5.12.2. Age

Concerning age, the findings of the studying have found significant relationship among quality-of-life levels and the age of nurses at the probability value (0.000). With the increase in age, the increase in practical and scientific experiences, the rate of the monthly salary increases, and the privileges offered to nurses also increase. All of these things contribute to nurses' improved quality of life, and as the research has reached this result, there are other researchers who found similar results in their research such as Serinkan & Kaymakçi, 2013 who found that the study sample was a significant relationship between quality-of-life level and the age for nurses at the probability value (0.001) and Hemanathan et al., 2017 who found that the study sample was a significant relationship among quality of life level and the age for nurses at the probability value (0.04).

5.12.3. Marital Status

Concerning marital status, the findings of the studying have found significant relationship among the quality of life level and the status of marital for nurses at the probability value (0.001). Married nurses showed generally higher levels than those who were unmarried. Specifically, it seems that marriage greatly affects the quality of life of the nurses. This is due to the many demands of married life overwhelmed by the nurses. And as our research reached this result, there are other researchers who found similar results in their research such as Gholami et al., 2012 who found that the study sample was significant relationship between the quality of life level and status of marital for nurses at the probability value (0.001) and Hemanathan et al., 2017 who found that the study sample was significant relationship between the quality of life level and status of marital for nurses at the probability value (0.050).

5.12.4. Education Level

Concerning education level, the findings of the studying have found a significant relationship among the quality-of-life level and the education level for nurses at the probability value (0.045). The educational level effects the quality of life through the higher the educational level, the higher the rate of monthly income, which leads to an improvement in the social and personal life of nurses, and as the research has reached this result, there are other researchers who found similar results in their research such as Hemanathan et al., 2017 who found that the study sample was a significant relationship among quality of life level and education level for nurses at the probability value (0.05) and Zhang et al., 2021 who found that the study sample was a significant relationship among quality of life level and education level for nurses at the probability value (0.014).

5.12.5. Location

Concerning location, the findings of the studying have found a significant relationship among quality-of-life level and the location for nurses. Some of Iraq's governorates live below the poverty line and this effect the quality of life to nurses at the probability value (0.002), and as the research has reached this result, there are other researchers who found similar results in their research such as Ruiz et al., 2020 who found that the study sample was significant relationship between quality-of-life level and the location at the probability value (0.03), and Moradi et al., 2021 who found that the study sample was a significant relationship among quality-of-life level and the location at the probability value (0.001).

5.12.6. Have Children

Concerning having children, the findings of the studying have found significant relationship among quality-of-life level and the have children at the probability value (0.001). During the onset of the COVID-19 epidemic, schools were closed, children remain at home, quarantine, and the closure of markets led to the complexity and difficulty of daily life and its low quality, especially married nurses with children, and as the research has reached this result, there are other researchers who found similar results in their research such as Çelmeçe & Menekay, 2020 who found that the study sample was a significant relationship among quality-of-life level and the have children at the probability value (0.001) and Tercan et al., 2020 who found that the study sample was a significant relationship among quality-of-life level and the have children at the probability value (0.02).

5.12.7. Number of children

Concerning the number of children, the findings of the studying have found significant relationship among quality-of-life level and the number of children at the probability value (0.027). As the children number increases, the demands of daily life for children increase, especially in the time of the spread of COVID-19, which effects the quality of life of parents of nurses, and as the research has reached this result, there are other researchers who found similar results in their research such as Lee et al., 2018 who found that the study sample was a significant relationship among quality-of-life level and the children number at the probability value (0.001) and Stojanov et al., 2020 who found that the study sample was a significant relationship among quality-of-life level and the children number at the probability value (0.01).

5.12.8. Years of Work in Ministry of Health

Concerning years of work in the ministry of health, the findings of the studying have found significant relationship among quality-of-life level and the years of work in the ministry of health at the probability value (0.021). The longer the period of work in the Ministry of Health is, the more the nurses feel that their jobs are more stable, the more their professional job increases, the shown to impact on quality of life among the nurses positively, and as the research has reached this result, there are other researchers who found similar results in their research such as Hemanathan et al., 2017 who found that the study sample was a significant relationship among quality-of-life level and the years of work in the ministry of health at the probability value (0.01) and An et al., 2020 who found that the study sample was a significant relationship among quality-of-life level and the years of work in the ministry of health at the probability value (0.009).

5.12.9. Experience Years in the Field of Nursing

Concerning experience years in the field of nursing, the findings of the studying have found a significant relationship among quality-of-life level and the years of experience in the nursing field at the probability value (0.001). This study showed a significant relationship among quality of life and experience of work, the nurses with experience of work have the best quality of life. She also mentioned that nurses with long experience have the best life quality than those with less work experience. One source of occupational stress for nurses is the short duration of work experience. Thus, nurses with more work experience appear to feel lower professional pressure and stable in work and therefore have the best quality of life, and as the research has reached this result, there are other researchers who found similar results in their research such as Gholami et al.,2012 who found that

the study sample was a significant relationship among quality-of-life level and the years of experience in the nursing field at the probability value (0.007) and Hemanathan et al., 2017 who found that the study sample was a significant relationship among quality-of-life level and the years of experience in the nursing field at the probability value (0.01).

5.12.10. Workplace in the Health Institution

Concerning workplace in the health institution, the findings of the studying have found significant relationship among quality-of-life level and the workplace in the health institution at the probability value (0.045). The current study revealed a statistically significant relationship among the life quality of nurses and the employees working so that nurses in specialized locations have a better quality of life than nurses in general locations. Inequalities in nurses' quality of life in different settings are attributed to hospital conditions. The factors several such as hospital space, type and number of the patients, the salary of nurses, policies of the hospital, and the material environment maybe impact nurses' quality of life, and the nurses in smaller hospitals were more satisfied with their quality of life, and as the research has reached this result, there are other researchers who found similar results in their research such as Hassanpour et al., 2020 who found that the study sample was significant relationship between quality-of-life level and the workplace in the health institution at the probability value (0.036) and Tomar et al., 2020 who found that the study sample was a significant relationship among quality-of-life level and the workplace in the health institution at the probability value (0.05).

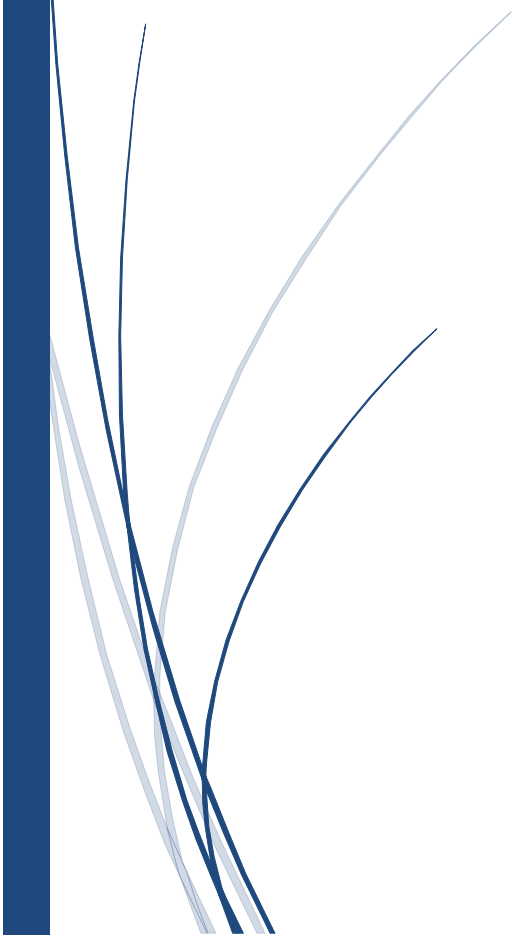
5.12.11. Personal Protection Equipment available in Workplace

Concerning personal protection equipment available in the workplace, the findings of the studying have found a significant relationship between

quality-of-life level and the personal protective equipment available in the workplace at the probability value (0.033). The availability of personal protective equipment for nurses contributes to improving the quality of work by reducing fears of transmission of viruses during reducing sources of anxiety and fear of transmitting the pandemic to their families, which in turn helps improve the life quality in general for nurses, and as the research has reached this result, there are other researchers who found similar results in their research such as Santos et al., 2021 who found that the study sample was a significant relationship among quality-of-life level and the personal protective equipment available in the workplace at the probability value (0.03) and Cotrin et al., 2020 who found that the study sample was a significant relationship among quality-of-life level and the personal protective equipment available in the workplace at the probability value (0.001).

Chapter Six

Conclusions and Recommendations



Chapter Six

Conclusions and Recommendations

6.1. Conclusions

The following conclusions may be drawn from the study's findings:

1. Most of the sample were suffering from an abnormal change in mental health status.

2. Some nurses' quality of life was poor.

3. This study explored mental health status of nurses during COVID-19 pandemic has been impacted

4. The COVID-19 pandemic has had an impact on the quality of life for nurses.

5. The change in mental health has influence on quality of life for the sample.

6. Show that significant relationship between mental health and quality of life with more socio-demographic variables

6.2. Recommendations

Based on the early stated conclusion, the study recommends:

1. Protecting the nursing staff from chronic stress, anxiety, and depression, which constitutes a psychological burden on health during the outbreak of the COVID-19 pandemic, by clarifying the disease and how to prevent it, as well as providing the personal protective equipment to decrease stress, anxiety, and depression during the pandemic.

2. Develop and improve the Iraqi health system and provide health supplies that reduce the risk of transmission of infectious diseases to nursing staff during the spread of the epidemic, which affects the psychological and mental health, and quality of life of nurses.

3. Support social systems play a major role in protecting nurses and reducing the prevalence of psychological distress through, assisting their families to handle daily life requirements and securing their financial status in the establishment of timely.

4. Health authorities develop guidelines and expert consensus to address occupational health and safety conditions, and crisis psychological intervention and counseling for nurses' frontline. Therefore, it is recommended, that the protection of nurses by authorities is prioritized through education and training, the readiness of staff, incentives, availability of Personal protective equipment, and psychological support.

5. Rapid development and implementation of interventions to prevent and treat mental health conditions urgently needed to support the growing number of nurses caring for COVID- 19 patients in Iraq and increasing awareness and formation about COVID-19 pandemic diseases and coping strategies is essential to promote mental health.

6. This study provides a vital impetus for policymakers to prioritize improvement measures for the quality of life of nurses in order to ensure their work commitment; this will safeguard patient care and subsequently enhance the overall performance of the Ministry of Health.

7. A trial with more statistical power and longer-term follow-up could provide more conclusive evidence of the effect of the COVID-19 pandemic on quality of life and mental health among nurses.

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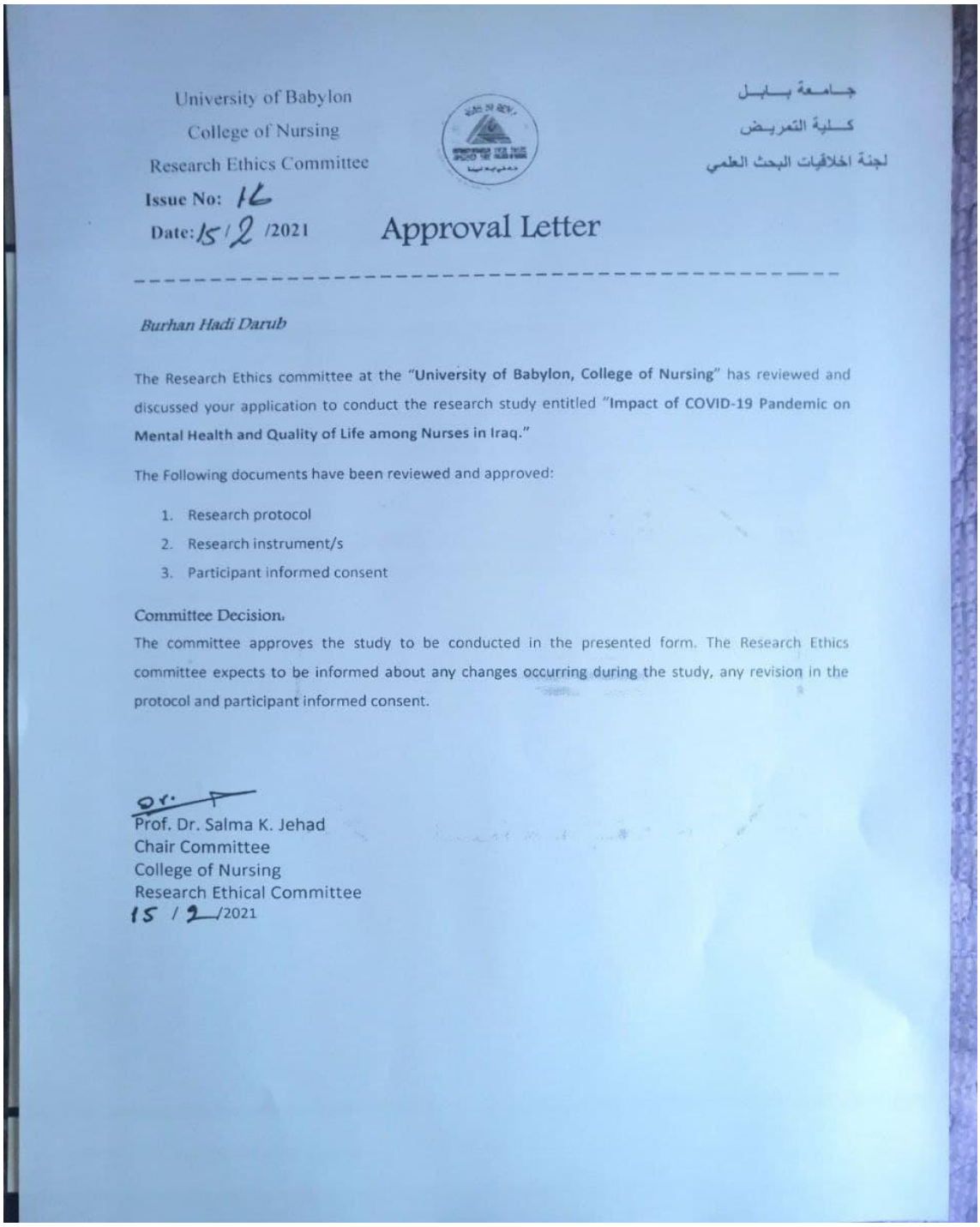
Appendices

Appendix (A)

Administrative Arrangements

Appendix-A-1



University of Babylon
College of Nursing
Research Ethics Committee
Issue No: 12
Date: 15 / 2 /2021

جامعة بابل
كلية التمريض
لجنة اخلاقيات البحث العلمي

Approval Letter

Burhan Hadi Darub

The Research Ethics committee at the "**University of Babylon, College of Nursing**" has reviewed and discussed your application to conduct the research study entitled "**Impact of COVID-19 Pandemic on Mental Health and Quality of Life among Nurses in Iraq.**"

The Following documents have been reviewed and approved:

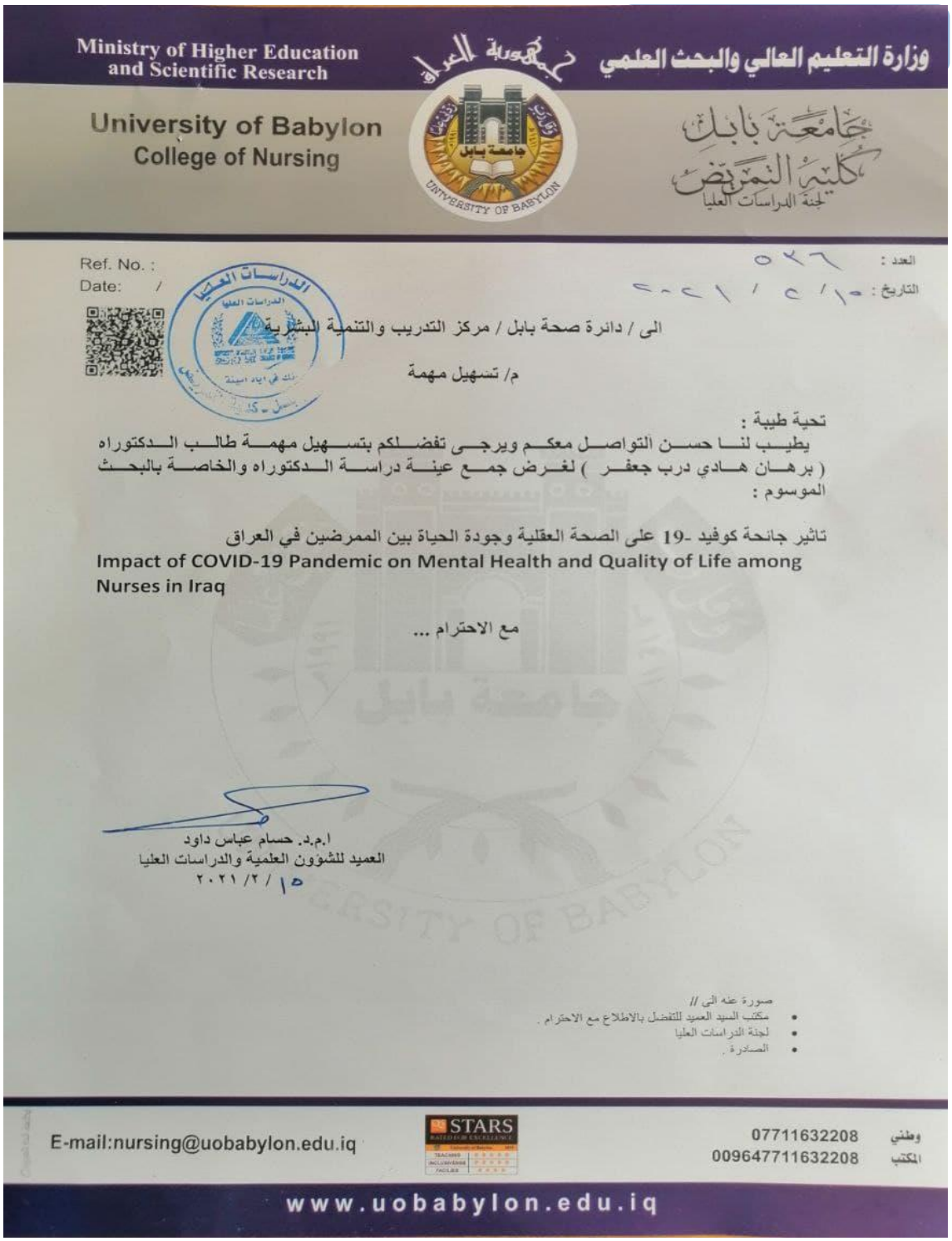
1. Research protocol
2. Research instrument/s
3. Participant informed consent

Committee Decision.

The committee approves the study to be conducted in the presented form. The Research Ethics committee expects to be informed about any changes occurring during the study, any revision in the protocol and participant informed consent.

Prof. Dr. Salma K. Jehad
Chair Committee
College of Nursing
Research Ethical Committee
15 / 2 /2021

Appendix-A-2



Ministry of Higher Education and Scientific Research
وزارة التعليم العالي والبحث العلمي
جمهورية العراق
University of Babylon
College of Nursing
جامعة بابل
كلية التمريض
لجنة الدراسات العليا

العدد : ٥٢٦
التاريخ : ١٥ / ٢ / ٢٠٢١
Ref. No. :
Date: /

الى / دائرة صحة بابل / مركز التدريب والتنمية البشرية

م/ تسهيل مهمة

تحية طيبة :

يطيب لنا حسن التواصل معكم ويرجى تفضلكم بتسهيل مهمة طالب الدكتوراه (برهان هادي درب جعفر) لغرض جمع عينة دراسة الدكتوراه والخاصة بالبحث الموسوم :

تاثير جائحة كوفيد -19 على الصحة العقلية وجودة الحياة بين الممرضين في العراق

Impact of COVID-19 Pandemic on Mental Health and Quality of Life among Nurses in Iraq

مع الاحترام ...

ا.م.د. حسام عباس داود
العميد للشوون العلمية والدراسات العليا
١٥ / ٢ / ٢٠٢١

صورة عنه الى //
- مكتب السيد العميد للتفضل بالاطلاع مع الاحترام .
- لجنة الدراسات العليا
- الصادرة .

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Appendix-A-3

جمهورية العراق

وزارة الصحة والبيئة
دائرة صحة محافظة بابـــل
المديـــر العـــام
مركـــز التدريب والتنمية البشرية
وحدة أدارة البحوث

العدد : ٢١٧
التاريخ: ٢٠٢١/ ٢/ ١٥

Ministry Of Health
Babylon Health Directorate
Email:-
Babel_Healthmoh@yahoo.com
Tel:282628 or 282621

وزارة الصحة
دائرة صحة بابل
مركز التدريب والتنمية البشرية

الى / مستشفى الشوملي العام

/ تسهيل مهمة

تحية طيبة ...

أشارة إلى كتاب جامعة بابل / / كلية التمريض / لجنة الدراسات العليا ذي العدد ٥٣٦ في ٢٠٢١/٢/١٥

نرفق لكم ربطا استمارات الموافقة المبدئية لمشروع البحث العائد للباحث طالب الدراسات العليا دكتوراه (برهان هادي درب جعفر) .

للتفضل بالاطلاع وتسهيل مهمة الموما أليها من خلال توقيع وختم استمارات اجراء البحث المرفقة في مؤسساتكم وحسب الضوابط والإمكانات لاستحصال الموافقة المبدئية ليتسنى لنا أجراء اللازم على أن لا تتحمل مؤسساتكم أية تبعات مادية وقانونية .... مع الاحترام

المرفقات :

استمارة عدد /٢

الدكتور
محمد عبد الله عجرش
مدير مركز التدريب والتنمية البشرية
/ /٢٠٢١

نسخة منه الى :

- مركز التدريب والتنمية البشرية / وحدة أدارة البحوث مع الأوليات ...

Appendix-A-4

جمهورية العـــراق

وزارة الصحة والبيئة
دائرة صحة محافظة بابـــل
المديـــر العـــام
مركـــز التدريب والتنمية البشرية
وحدة أدارة البحوث

العدد : ٧٧٧
التاريخ : ١٧ / ٢ /٢٠٢١

Ministry Of Health
Babylon Health Directorate
Email:-
Babel_Healthmoh@yahoo.com
Tel:282628 or 282621

إلى / مستشفى الشوملي العام
م/ تسهيـــل مهمـــة

وزارة الصحة
دائرة صحة بابل
مركز التدريب والتنمية البشرية

تحية طيبة ...

حصلت موافقـــة اللجنة العلمية للبحوث فـــي دائرتنـــا حول تسهيل مهمـــة الباحث ممرض جامعي (برهان هادي درب) من مستشفى الشوملي العام لإجراء بحثه الموسوم (تأثير جائحة كوفيد -١٩ على الاكتئاب القلق التوتر وجودة الحياة للمرضين في بابل) والذي نال الموافقة من قبل اللجنة برئاســـة (د.منعم مكي الشوك) وعضويـــــة كل مـــن(د. محمد عبد الله عجرش) طبيب اختصـــاص و(د. صباح جاسم الربيعي) طبيب استشاري للتفضل بالاطلاع وتسهيل مهمة الموما إليه في مؤسساتكم الصحية وحسب الضوابط والإمكانيات المتاحة على أن لا تتحمل دائرتنا أية تبعات مادية وقانونية

مـــــع الاحتـــرام ....

الدكتور
محمد عبد الله عجرش
مدير مركز التدريب والتنمية البشرية
/ / ٢٠٢١

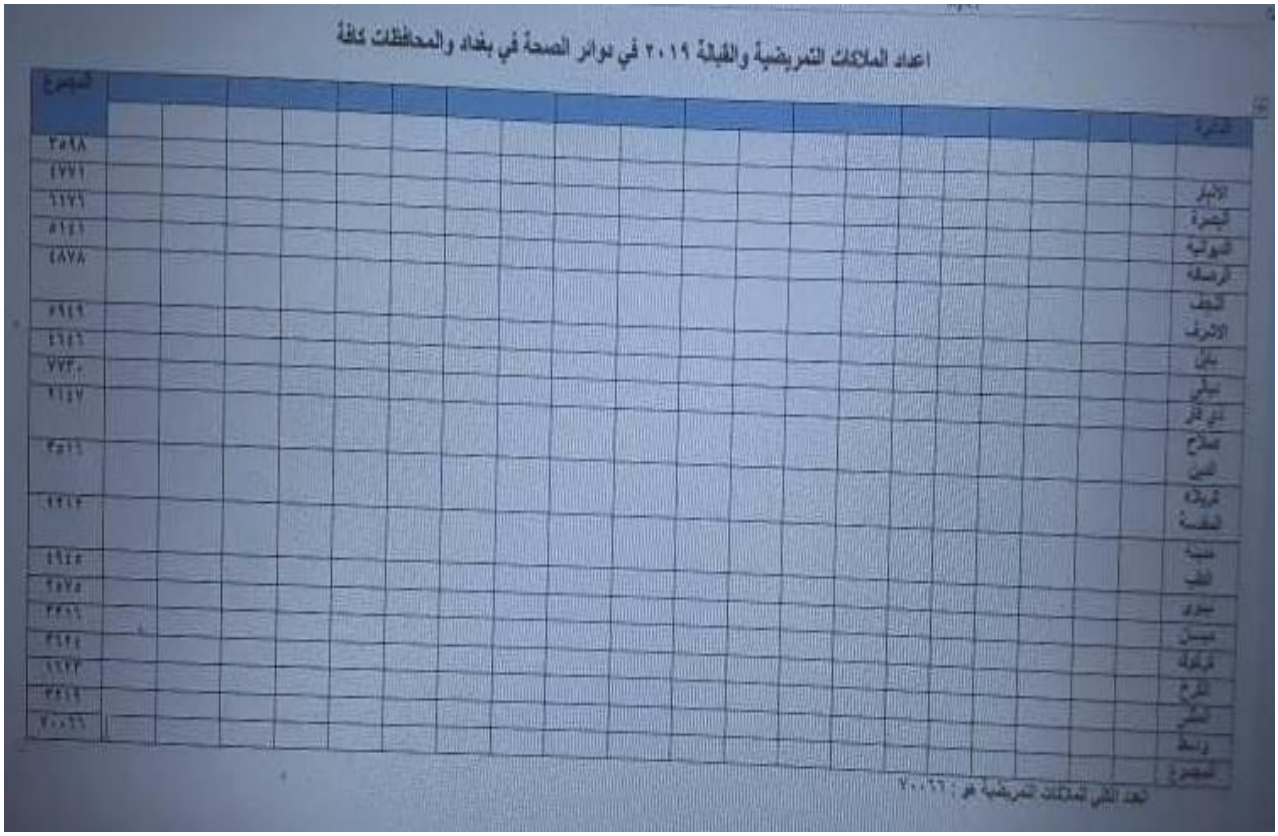
نسخة منه الى :
- مكتب المدير العام / مركز التدريب والتنمية البشرية / وحدة إدارة البحوث ... مع الأوليات.

Appendix (B)

Study Sample

Appendix B

Number of Nurses



Sample Size Calculation

Appendix *(C)*

Study Tools

Appendix C

Depression Anxiety Stress Scale (DASS 21)

No.	Statement	Never	Little	Sometime	Most always
1.	I found it hard to wind down				
2.	I was aware of dryness of my mouth				
3.	I couldn't seem to experience any positive feeling at all				
4.	I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)				
5.	I found it difficult to work up the initiative to do things				
6.	I tended to over-react to situations				
7.	I experienced trembling (eg, in the hands)				
8.	I felt that I was using a lot of nervous energy				
9.	I was worried about situations in which I might panic and make a fool of myself				
10.	I felt that I had nothing to look forward to				
11.	I found myself getting agitated				
12.	I found it difficult to relax				
13.	I felt down-hearted and blue				
14.	I was intolerant of anything that kept me from getting on with what I was doing				
15.	I felt I was close to panic				
16.	I was unable to become enthusiastic about anything				
17.	I felt I wasn't worth much as a person				
18.	I felt that I was rather touchy				
19.	I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat)				
20.	I felt scared without any good reason				
21.	I felt that life was meaningless				

Quality of Life during COVID 19 Scale

No	Statement	Never	Little	Sometime	Often	Most always
.1	To what degree do you feel happiness in your life?					
.2	How good is your relationship with your parents and relatives?					
.3	Will it be new relationships with others?					
.4	Do you feel good in your family life?					
.5	To what degree are you comfortable in your work or your job?					
.6	Do you have an amount of money to meet your daily needs?					
.7	Do you feel physical health and wellness?					
.8	Do you feel safe and secure in your daily life?					
.9	Do you feel reassurance and peace of mind?					
.10	Are you satisfied with the place you live in?					
.11	To what degree is he able to do your daily work?					
.12	To what degree are you satisfied with yourself?					
.13	To what degree are you enjoying your life?					
.14	What degree of negative feelings do you have (frustration, depression)?					
.15	What is your quality-of-life score?					

استمارة استبيانيه

وزارة التعليم العالي والبحث العلمي

كلية التمريض / جامعة بابل

عزيزي الممرض / عزيزتي الممرضة

بين يديك استبانة لأطروحة الدكتوراه

(تأثير جائحة كوفيد-19 على الصحة العقلية وجودة الحياة بين الممرضين في العراق)

يروم الباحث الى دراسة **(تأثير جائحة كوفيد-19 على الصحة العقلية وجودة الحياة بين الممرضين في العراق)** وبما أن مشاركتكم في هذه الدراسة ذات قيمة كبيرة، فالرجاء اختيار الإجابة التي تحدد ما تشعر به بالفعل، علما أنه لا توجد إجابة صحيحة وأخرى خاطئة، وانما اجاباتكم تعد صحيحة -فقط - طالما تعبر عن حقيقة شعورك اتجاه ما تحمله العبارة. لا تضع أكثر من علامة أمام عبارة واحدة مع التأكد من عدم ترك أي عبارة بدون إجابة، علما ان الاستبانة بدون اسم وسوف نتعامل مع أجابتك بخصوصية وسرية مطلقة وتستعمل الاستبانة لغرض البحث العلمي فقط.

علما ان ملئ الاستبيان تعني الموافقة على المشاركة في البحث. **يرجى التحقق من أنك أجبت على كافة الأسئلة.**

مع خالص الشكر والامتنان لتعاونكم معنا خدمة لأهداف الدراسة

الباحث

طالب الدكتوراه / برهان هادي درب

جامعة بابل / كلية التمريض

رقم الاستمارة: ..... اسم المستشفى ....

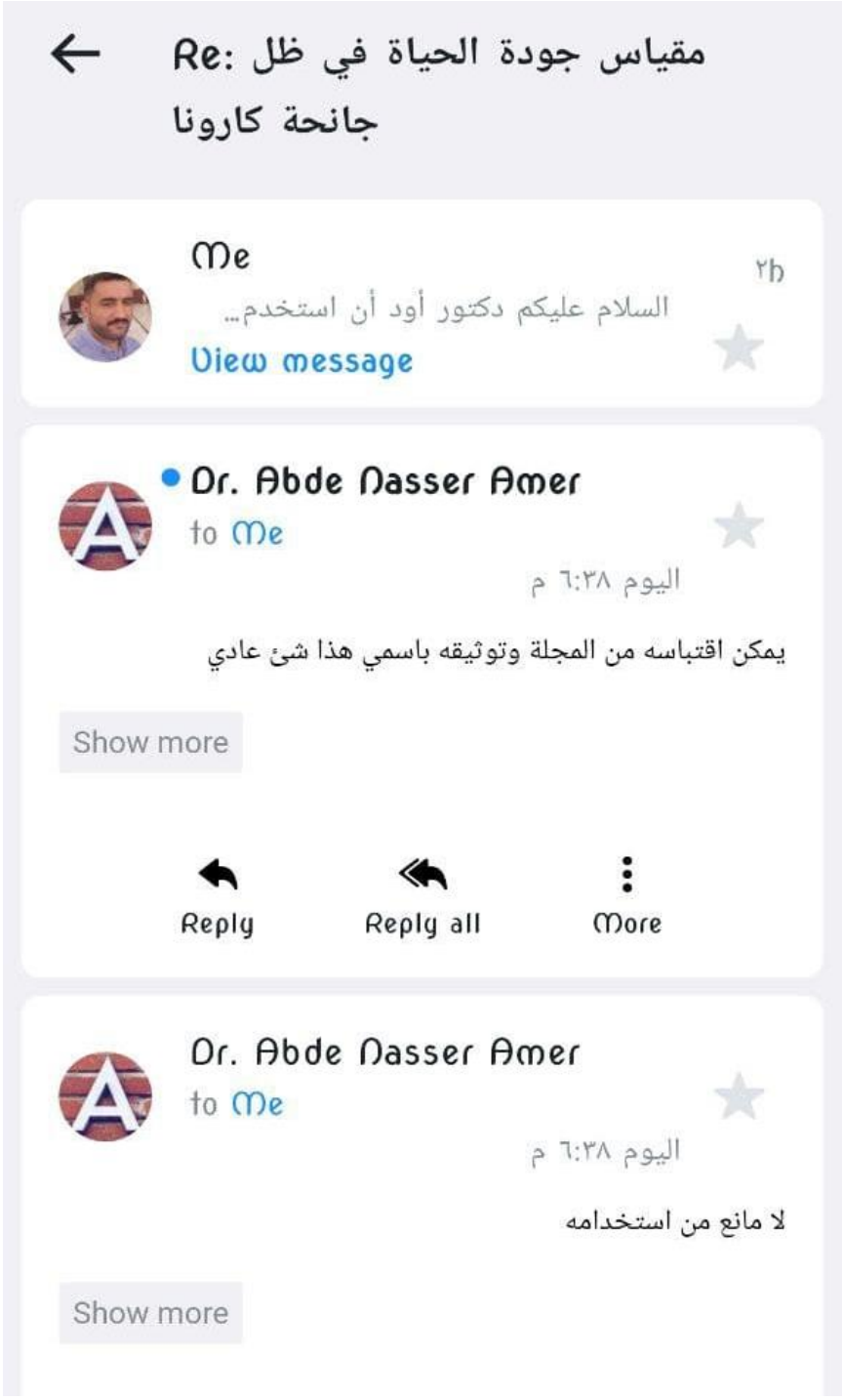
1. الجنس: ذكر ☐ انثى ☐
2. العمر: ☐ سنة
3. الحالة الاجتماعية: أعزب ☐ متزوج ☐ منفصل ☐ أرمل ☐
4. التحصيل الدراسي: اعدادية ☐ دبلوم ☐ بكالوريوس ☐ شهادة عليا ☐
5. الموقع: ☐
6. إذا كنت متزوج هل لديك اطفال: نعم ☐ لا ☐
7. كم عدد الاطفال ☐ طفل
8. عدد سنوات الخدمة في وزارة الصحة: ☐ سنة
9. عدد سنوات الخدمة في حقل التمريض ☐ سنة
10. لديك الرغبة في العمل التمريضي: نعم ☐ لا ☐
11. مكان العمل: الردهة الوبائية ☐ ردهة الاشتباه ☐ ردهات الطوارئ ☐ ردهات الرقود ☐
12. هل تتوفر وسائل الحماية الذاتية في محل العمل (كفوف، غطاء الوجه، غطاء الراس، الخ): نعم ☐ لا ☐
13. اصبت بمرض كوفيد 19 خلال فترة انتشار المرض: نعم ☐ لا ☐
14. إذا كانت نعم كيف كانت شدة الاصابة: بسيطة ☐ متوسطة ☐ شديدة ☐

مقياس الاكتئاب والقلق والضغط النفسي (DASS21)

ت	العبارات	ابدا	احيانا	غالبا	دائما
.1	أجد صعوبة في الاسترخاء والراحة				
.2	اشعر بجفاف في فمي				
.3	ليس بإمكاني الإحساس بمشاعر إيجابية على الإطلاق				
.4	اشعر بصعوبة في التنفس (شدة التنفس السريع، اللهثان بدون القيام بمجهود جسدي مثلاً)				
.5	أجد صعوبة في أخذ المبادرة بعمل الأشياء				
.6	أميل إلى ردة فعل قوية مفرطة للظروف والأحداث				
.7	اشعر برجفة (باليدين مثلاً)				
.8	اشعر بأنني أستهلك الكثير من قدرتي على تحمل التوتر العصبي				
.9	اخاف من مواقف قد أفقد فيها السيطرة على أعصابي واسبب إحراجاً لنفسي				
.10	اشعر بأن ليس لدي أي شيء أتطلع إليه				
.11	اشعر بأنني مضطرب ومنزعج				
.12	أجد صعوبة في الاسترخاء				
.13	اشعر بالحزن والغم				
.14	لا أستطع تحمل أي شيء يحول بيني وبين ما أرغب القيام به				
.15	اشعر بأنني على وشك الوقوع في حالة من الرعب المفاجئ بدون سبب				
.16	أفقد الشعور بالحماس لأي شيء				
.17	اشعر بأن قيمتي قليلة كشخص				
.18	اشعر بأنني أميل إلى الغضب بسرعة				
.19	اشعر بضربات قلبي بدون مجهود جسدي (زيادة في معدل الدقات، أو غياب دقة قلب، مثلاً)				
.20	اشعر بالخوف بدون أي سبب مقنع				
.21	اشعر بأن الحياة ليس لها معنى				

مقياس جودة الحياة خلال جائحة كورونا

ت	العبارات	ابدا	نادرا	احيانا	غالبا	دائما
.1	الى اي درجة تشعر بالسعادة في حياتك					
.2	الى اي درجة علاقتك جيدة مع والديك واقاربك					
.3	تكوّن علاقات جديدة مع الاخرين					
.4	الى اي درجة تشعر بالرضا عن حياتك العائلية					
.5	الى اي درجة انت مرتاح في عملك او وظيفتك					
.6	الى اي درجة يتوفر لديك المال الكافي لتلبية الاحتياجاتك اليومية					
.7	الى اي درجة تشعر بالصحة البدنية والسلامة					
.8	الى اي درجة تشعر بالأمن والامان في حياتك اليومية					
.9	الى اي درجة تشعر بالطمأنينة وراحة البال					
.10	الى اي درجة انت راض عن مسكنك الذي تعيش فيه					
.11	الى اي درجة قادر انت على تأدية اعمالك اليومية					
.12	الى اي درجة انت راضي عن نفسك					
.13	الي اي درجة انت مستمتع بحياتك					
.14	كيف تقيّم المشاعر السلبية لديك مثل (الاحباط، الاكتئاب والقلق)					
.15	كيف تقيّم جودة الحياة اليومية لديك					


Re: مقياس جودة الحياة في ظل جانحة كارونا
Me
٢h
السلام عليكم دكتور أود أن استخدم...
View message
Dr. Abde Nasser Amer
to Me
اليوم ٦:٣٨ م
يمكن اقتباسه من المجلة وتوثيقه باسمي هذا شئ عادي
Show more
Reply
Reply all
More
Dr. Abde Nasser Amer
to Me
اليوم ٦:٣٨ م
لا مانع من استخدامه
Show more

Appendix (D)

Panel of Experts

Appendix D

قائمة خبراء تحكيم الاستبيان

ت	الاســـــــــم	اللقب العلمي	عدد سنوات الخبرة	مكـــان العـــمـل	الاختصاص الدقيق
.1	**د. عبد المهدي عبد الرضا حسن**	أستـــاذ	42 سنة	جامعة بابل / كلية التمريض	دكتوراه صحة نفسية وعقلية
.2	**د. انتصار عبد الغني**	أستـــــاذ	30 سنة	كلية مدينة العلم الجامعة	دكتوراه صحة نفسية وعقلية
.3	**د. علي كريم خضير**	أستـــــاذ	29 سنة	جامعة كربلاء/ كلية التمريض	دكتوراه صحة نفسية وعقلية
.4	**د. معن حميد إبراهيم**	أستـــاذ مساعـــد	40 سنة	كلية الكوت الجامعة	دكتوراه صحة نفسية وعقلية
.5	**د. احمد حسن حسين**	أستـــاذ مساعـــد	27 سنة	جامعة ذي قار / كلية الطب	بورد الطب النفسي
.6	**د. صافي داخل نوام**	أستـــاذ مساعـــد	15 سنة	جامعة كربلاء/ كلية التمريض	دكتوراه صحة نفسية وعقلية
.7	**د. قحطان قاسم محمد**	أستـــاذ مساعـــد	14 سنة	جامعة بغداد/ كلية التمريض	دكتوراه صحة نفسية وعقلية
.8	**د. حسن علي حسين**	أستـــاذ مساعـــد	12 سنة	جامعة بغداد/ كلية التمريض	دكتوراه صحة نفسية وعقلية
.9	**د. حيدر حمزة علي**	أستـــاذ مساعـــد	11 سنة	جامعة بابل/ كلية التمريض	دكتوراه صحة نفسية وعقلية
.10	**د. هاشم جبار صدام**	أستـــاذ مساعـــد	10 سنة	كلية الشيخ الطوسي	دكتوراه اللغة والنحو
.11	**د. اشوان عبد الزهرة هاشم**	أستـــاذ مساعـــد	7 سنة	جامعة الكوفة / كلية الطب	بورد الطب النفسي
.12	**د. حيدر امير جبر**	مدرس	16 سنة	جامعة القادسية/ كلية التمريض	دكتوراه صحة نفسية وعقلية
.13	**د. كوثر سلمان داود**	مدرس	14 سنة	المعهد التقني الطبي / بغداد	دكتوراه صحة نفسية وعقلية
.14	**د. علي احمد كاظم**	مدرس	10 سنة	جامعة بابل/ كلية التمريض	دكتوراه صحة نفسية وعقلية
.15	**د. احسان عباس حسن**	مدرس	7 سنة	جامعة الكوفة / كلية التربية للبنات	دكتوراه علم النفس/طرائق تدريس
.16	**د. بيداء عبد الكريم إسماعيل**	استشاري	33 سنة	وزارة الصحة /دائرة مدينة الطب	دكتوراه صحة نفسية وعقلية
.17	**د. مزهر خليف حسوني**	استشاري	18 سنة	دائرة صحة ميسان/ معهد الصحة العالي	دكتوراه صحة نفسية وعقلية
.18	**د. نبراس هادي عبد الحسين**	استشاري	10 سنة	دائرة صحة بابل/ معهد الصحة العالي	دكتوراه صحة نفسية وعقلية
.19	**د. إبراهيم صفاء كريم**	استشاري	9 سنة	دائرة صحة ذي قار	بورد في الطب النفسي

Appendices (E)

Approval of the Linguistic Expert

Appendix. E

إقــرار الخبيــر اللغــوي

أقر بأن الأطروحة الموسومة:

(تأثير جائحة كوفيد-19 على الصحة العقلية وجودة الحياة بين الممرضين في العراق)

قــد جــرى مراجعتهــا مــن الناحيــة اللغويــة وأصــبحت بأســلوب علمــي ســليم خـــــال مـــن الأخطـــاء اللغويـــــة ولأجلـــه وقعـــــت.

الخـبـيـر الـلـغـوي

المدرس المساعد
امير سلمان حسين

جـامـعـة بـابل/ كـلـيـة الـتـربية للعلوم الانسانية

قسـم اللغـة الإنكليزية

2022 / /

الملخـــــص

الخلاصة

الخلفية: تعد جائحة كوفيد-19 أزمة صحية كبرى غيرت حياة الملايين على مستوى العالم.

الأهداف: هدفت الدراسة إلى تقييم تأثير جائحة كوفيد-19 على حالة الصحة النفسية ونوعية الحياة للممرضين في العراق. علاوة على ذلك ، تقييم مستويات حالة الصحة العقلية ونوعية الحياة ومعرفة العلاقة بين البيانات الديموغرافية وحالة الصحة العقلية ونوعية الحياة.

المنهجية: عينة هادفة غير احتمالية من (1000) ممرض وممرضة من الجنوب إلى الشمال في العراق.

النتائج: كشفت الدراسة أن تأثير كوفيد-19 على (القلق والتوتر وجودة الحياة) للممرضين , كان قيمة p = (0.040 و 0.045 و 0.029 على التوالي) ولايوجد تأثير لكوفيد-19على (الاكتئاب) للممرضين. كما كشفت الدراسة أن (23٪) من العينة عانت من اكتئاب متوسط، و(25.8٪) من العينة عانت من قلق شديد للغاية، و(17.1٪) من العينة عانت من إجهاد شديد، و(11.3٪) من العينة عانت من سوء نوعية الحياة. علاوة على ذلك ، وجدت الدراسة علاقة كبيرة بين البيانات الديموغرافية والاكتئاب والقلق والتوتر ونوعية الحياة عند قيمة $p \leq 0.05$.

الخلاصة: كان معظم أفراد العينة يعانون من تغير غير طبيعي في حالة الصحة العقلية (الاكتئاب والقلق والتوتر) وكانت نوعية حياة بعض الممرضين رديئة. تأثرت حالة الصحة العقلية (القلق والتوتر) للممرضين بسبب جائحة كوفيد-19. كان لوباء كوفيد-19 تأثير على نوعية حياة الممرضين.

التوصيات: الكادر التمريضي من التوتر المزمن والقلق والاكتئاب. تطوير وتحسين النظام الصحي العراقي وتوفير المستلزمات الصحية التي تقلل من خطر انتقال الأمراض المعدية إلى الكوادر التمريضية.

وزارة التعليم العالي والبحـث العلمـي
جامعـة بابـــــل
كليــة التمريـض

تأثير جائحة كوفيد-19 على الصحة العقلية وجودة الحياة بين الممرضين في العراق

اطروحة مقدمة الى مجلس كلية التمريض – جامعة بابل
من قبل

برهان هادي درب السلطاني

الـــى فرع الصحة النفسية والعقلية
كلية التمريض / جامعة بابل

جزء من متطلبات درجة شهادة الدكتوراه فلسفة علوم في التمريض

بإشـــــــراف

الأستـــــــاذ

د. سجاء هاشم محمد

حزيران/2022 ميلادي **ذو القعدة / 1443هجري**