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EFFECTS OF COVID-19 ON MENTAL HEALTH AMONG NURSES AT PARIRENYATWA GROUP OF HOSPITALS

BY

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A RESEARCH PROJECT SUBMITTED IN PARTIAL FULLFILLMENT FOR THE POST BASIC BACHELOR OF NURSING SCIENCE DEGREE IN THE COLLEGE OF HEALTH, AGRICULTURE AND NATURAL SCIENCES

2022

ABSTRACT

Health care nurses have carried out heavy burden during the COVID-19 pandemic, in the challenge to control the deadly virus. They faced many direct consequences, thereby supporting their psychological wellbeing continues to be of paramount importance. This study was carried out to identify the effects COVID-19 had among nurses working at Parirenyatwa Group of Hospitals.

A review of literature was carried out information searched from several data bases , namely, PubMed, Domnican convent university .Published studies from journals that reported the psychological effects of COVID-19 on mental health among nurses was used.

The study carried out on 52 nurses working in the COVID-19 red zone unit , revealed that nurses experienced mental challenges of depression, burnout sleep disorders , post -traumatic stress disorder and obsessive compulsive disorders. Results also revealed that nurses used many copying strategies to cope during the COVID-19 pandemic namely, prayer, resting during shifts, keeping contact with relatives and friends. Mitigating strategies were also employed by nursing management to help nurses cope in the pandemic, for example giving them a COVID-19 allowance, counselling sessions and reduction in number of working hours.

The evidence of data collected revealed that nurses were at more risk of facing mental challenges during the COVID-19 pandemic. More priority need to be given when it comes to their mental health during pandemics. Nurses working in other department out of the COVID-19 red zone unit should also have mental health studies carried out on them, least they produce results similar or worst when it comes to their mental health.

KEY WORDS
COVID-19, nurses, coping strategies, mental challenges.

DECLARATION PAGE

I declare that this proposal is my own original work except where sources have been cited or acknowledged. The work has never been submitted, nor will it ever be submitted to another university for the award of a degree.

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ACKNOWLEDGEMENTS

DEDICATION PAGE

This dissertation is dedicated to my lovely daughters Marcia and Vanessa. My daughters you

have been with me through thick and thin in the journeys of life.

The love you have given me has given me strength and power to move on and keep soldiering

on. You understand every situation without being judgemental. I love you so much my lovely

daughters.

LIST OF ACRONYMS AND ABREVIATIONS

AUREC   Africa university research ethics committee

DEFINITION OF KEY TERMS

Mental health – It refers to the state of right mind whereby one's mental health is free from stress, depression and other related stressors (Wang 2020).

COVID-19 –is a contagious zoonotic disease caused by novel coronavirus named by several Acute Respiratory Syndrome Coronavirus-2(SARS-CoV-2) (Srivastara N, Baxi P. 2020)

Pandemic – It refers to a worldwide spread of a new disease that affects large numbers of people. (WHO, 2010).

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CHAPTER ONE: INTRODUCTION

1.1 INTRODUCTION

The chapter provides an overview of the study which aims to explore effects of coronavirus disease of 2019 (COVID-19) pandemic on mental health among nurses at Parirenyatwa Group of Hospitals. The chapter will provide details on the background of the study, statement of the problem, research objectives and research questions. The significance of the study, study delimitations, and limitations, as well as definition of terms, abbreviations and the conceptual framework that guided the study will also be presented.

COVID-19 is a contagious zoonotic disease caused by novel coronavirus named by the Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2) (Srivastara & Baxi, 2020). COVID-19 clinical manifestations include fever, dry cough, dyspnoea, chest pain fatigue and myalgia (Harapan 2020). COVID-19 pandemic has spread across the globe at an unprecedented rate due to its increased infectiousness. Recent statistics from March 21, 2022 reported around 471 million global cases of COVID-19 over 407 million people recoveries and 6.1 million deaths according to (Worldometer, 2022). Globally, recent research by Teo (2021) revealed nurses been experiencing mental health challenges such as burn out, stress and anxiety since the start of COVID-19 pandemic. Countries in the developed countries for example Italy and spain reporting high prevalence of mental health problems among health care workers according to research by (Conti Fontanesi & Bueno-Guerra, 2020).

In the sub-Saharan Africa region, Africa reported as many as 44 million people infected with COVID-19 and estimates of 190 000 deaths according to (WHO Regional office for Africa, 2020).In Kenya according to research by Kenya Harmonised health facility assessment (2018). High rates of depression and anxiety were reported amongst healthcare workers working in government institution than those in private institutions. Recent research by Shah (2021) revealed statistics of 53% depression, 44% anxiety and 41% insomnia between August and November 2020. Little attention on mental health effects of COVID-19 prevalent in South Africa resulted in an increase in mental health issues according to research by Dhai (2017), financial budget as low as 5% is allocated for mental health services in the country.

At national level in Zimbabwe a few people were infected by Covid-19 between April and May 2020 and a few succumbed to the disease according to researches by Heather. Duffy and Sharer 2020. Despite lockdown from March to April 14, 2020 the number of infected rose to 56 cases by May 25 2020. However not much studies concentrated on COVID-19 mental health effects on nurses at Parirenyatwa Group of Hospitals according to research studies by Kavenga, Hannah, Rickson and Krance (2020), on occupational health services carried out between 27th of July and 30 October 2020 on 950 participants 45% felt fearful but optimistic, 35% felt fearful or very fearful and 20% neutral. Therefore it is critical to investigate the mental health among nurses, the focus of the study being Parirenyatwa Group of Hospitals.

1.2 BACKGROUND TO THE STUDY

Nurses are the front-line caregivers for patients in a hospital setting (Varghese et al., 2021). Helping, promoting, and easing the pain of persons in their care are among their responsibility. Nurses are expected to create and maintain professional connections with patients, practice with compassion, and respect all patients regardless of their social, personal, or health-related status, according to the nursing code of ethics (ANA, 2010).

The COVID-19 pandemic has resulted in significant impacts not only among the general population and affected patients but also among the health care workers who care for infected patients. Although the pandemic has affected various aspects of health and wellbeing, mental health is among the most reported concerns according to (Ahmed & Aibao, 2020). A global study done between April and May 2020 across 31 countries looking at mental health outcomes in health care workers during March 2020 to May 2020 of the pandemic showed an overall prevalence of 60% anxiety and 53% depression (Marzo & ALrifai, 2020).

Previous respiratory illnesses in this century, such as SARS, Middle East Respiratory Syndrome (MERS), have shown stress, anxiety, sadness, hostility, somatization, and terror in nurses (Kurevakwesu, 2021; Garriga et al., 2020; Druss, 2020). During that time, nurses have shown to have a greater prevalence of mental illnesses than physicians and other health care workers. COVID-19 has also had an impact on the psychological health of nurses, as evidenced by a study conducted in various parts of the world (Stuijfzand, 2020). In March 2020 during the early stages

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of COVID-19, nurses from across the globe reported higher levels of anxiety and sadness than other frontline health care professionals. (De Kock, 2021).

Furthermore, Negative health outcomes are expected to be more common among health-care providers during the COVID-19 pandemic than in previous pandemics (SARS and MERS) (Druss, 2020).This could be due to a number of factors, including a lack of personal protective equipment in some countries, increased workload, and inexperienced clinical staff in dealing with this new clinical situation and its associated guidelines. The COVID-19 pandemic, is anticipated to have both long and short-term effects on mental health (WHO, 2020). WHO published an article for mental well-being of high-risk groups, particularly health care providers, due to the importance of the pandemic's mental health implications (WHO, 2020).

According to Chevance (2020), having appropriate training and readiness, being at high risk of infection due to work conditions, job stress, quarantine, perceived risk, and poor organizational support were identified as highly influencing factors that affect the psychological well-being of health care practitioners who take makor responsibility for treating patients with coronavirus infections is crucial to maintain the quality of appropriate health treatment. (Greenberg, 2020).

The main medical center in Zimbabwe is Parirenyatwa Group of Hospitals, which is located in Harare. The hospital was previously known as the Andrew Fleming Hospital, and was named after the British South African Company's chief medical officer. Following Zimbabwe's independence in 1980, the hospital was renamed in honor of Tichafa Samuel Parirenyatwa(1927-1962), Joshua Nkomo's close companion and the country's first black doctor of medicine (Chibuwe, 2013). The hospital has a maternity unit, sekuru Kaguvi, which specializes in eye therapy, an annex for mental patients, and many specialized pediatric wards, in addition to its normal medical and surgical sections (Chibuwe, 2013). The main hospital complex contains around 5000 beds and 12 operating theaters. Parirenyatwa is a home to the University of Zimbabwe's College of Health Sciences. From third year onwards, medical students at the university train at Parirenyatwa Group of Hospitals. Within the complex there is a school of nursing with three intakes of general nurses per year for a three-year diploma in nursing, as well as several post basic training courses such as, community and primary care nursing, othopaedic, oncology and midwifery to name a few.

The first wave of COVID-19 was felt in Zimbabwe, with few people infected between April and May, 2020 and few fatalities (Heather, Duffy and Sharer, 2020). In order to maintain their

professional oath of service, nurses were tasked with the treatment of COVID-19 infected patients on the frontlines, risking their bodily and mental health. To help frontline workers cope with workload, the authorities issued self-care guidelines on physical and mental wellbeing (Ministry of child care, 2020).

However given the paucity of understanding and information about the virus, particularly nurses, working in close proximity with COVID-19 patients, these were insufficient (Dzingwa, 2021). It is therefore imperative to study the effects of COVID-19 on mental health of nurses at Parirenyatwa Group of Hospitals.

1.3 STATEMENT OF THE PROBLEM

There is a dearth of literature on mental health challenges on nurses in Zimbabwe even particularly with regard to COVID-19 pandemic.35% healthcare workers felt fearful,45%fearful but optimistic and 20% neutral in a study on occupational health at Parirenyatwa Group of Hospitals by Kavenga, Hannah, and Kranzer, (2020). Majority of the studies on mental health on nurses in relation to COVID-19 originated from outside Zimbabwe. Few studies such as that of (Matsungo, Chopera 2020), focused on effects of COVID -19 induced lockdown on nutrition, health and lifestyle pattern among adults in Zimbabwe, a few mental effects appeared on stress induced by changes in lifestyle, It appears that although these studies documented literature on effects of COVID-19, the focus was not on mental effects of COVID-19 among nurses at Parirenyatwa Group of Hospitals. A significant number of studies focus more on COVID-19 patients and mental health challenges thereby ignoring nurses as frontline workers. According to (Mazhandu, 2020) a psychiatrist in Harare, counseled several patients struggling with depression and suicidal thoughts waiting for COVID-19 test results. International Organization for Immigration offered mental health and psychosocial support services to returnee's immigrants. According to International Organization Migration (2020), mental health and psychosocial support services are necessary part of response to immigrants as the populations suffer from many negative impacts of the pandemic like loss of loved ones, stigma, isolation, job loss. According to Nyamukapa (2021), the Zimbabwe Country Coordinator for the Friendship Bench Program, counselling sessions are provided through online platforms, accessible via Whats App, video, texting or audio to curb for psychiatric disorders depression, panic attacks and insomnia during COVID-19 pandemic. COVID-19 has caused a lot

of stress within the Zimbabwean population according to Doctor Machando, the Chief Mental Health Officer for the WHO Office in Zimbabwe. Therefore this current study aim to find out the challenges experienced by nurses in relation to mental health issues during COVID-19 pandemic.

1.3 RESEARCH OBJECTIVES

1.3.1 BROAD OBJECTIVE:

The aim of the study is to explore effects of COVID-19 pandemic on mental health among nurses working at Parirenyatwa Group of Hospitals, Zimbabwe.

1.3.2 SPECIFIC RESEARCH OBJECTIVES

The study sought to achieve the following objectives:

1 To explore mental health challenges experienced by nurses at Parirenyatwa Group of Hospitals during COVID-19 pandemic.
2 To establish coping strategies employed by nurses to deal with mental health challenges at Parirenyatwa Group of Hospitals during COVID-19 pandemic.
3 To ascertain measures put in place by hospital management to mitigate challenges faced by nurses at Parirenyatwa Group of Hospitals during the COVID-19 pandemic.

1.4 RESEARCH QUESTIONS

This study answered the questions below:

1. What mental health challenges were experienced by nurses at Parirenyatwa Group of Hospitals during COVID-19 pandemic?

2. What coping strategies were employed by nurses to deal with mental health challenges at Parirenyatwa Group of Hospitals during COVID-19 pandemic?

3. What measures were put in place by hospital management to mitigate mental challenges faced by nurses at Parirenyatwa Group of Hospitals during COVID -19 pandemic?

1.4 ASSUMPTIONS

The study assumed the response of respondents will be satisfactory with a response of above 95%. It also assumed tangible results will be revealed on the mental effects of COVID-19 among nurses at Parirenyatwa Group of Hospitals.

1.5 SIGNIFICANCE OF THE STUDY

To Parirenyatwa Group of Hospitals

Information researched will help the nursing team at Parirenyatwa Group of Hospitals to understand challenges and strategies employed to mitigate mental health effects of COVID-19 and further recommendations can be applied in other hospitals and other health facilities.

The researcher

This study will produce data that will help better comprehend and appreciate nurse's work. It will validate previous information on mental health effects of nurses and bring in fresh insights as far as COVID-19 is concerned.

The Ministry of Health and Child Care

It is critical to remember that theoretical knowledge is insufficient without empirical proof, thus this study will provide new information on the effects of COVID-19 on mental health of nurses. This will also help the Ministry of Health and Child Care to take seriously mental health issues on nurses. It will also help the health ministry to take up proactive measures as opposed to reactive ones.

1.6 DELIMITATIONS OF THE STUDY

The study was conducted at Parirenyatwa Group of Hospitals therefore all other nurses from other hospitals were not part of this research. The research was carried out in the COVID-19 red zone unit.

1.7 LIMITATIONS OF THE STUDY

Due to COVID-19 restrictions, the researcher had difficulty getting vital information, since collecting data from respondents was challenging. The researcher, on the other hand, persuade the respondents and adhere to the COVID-19 protocols.

Some people may be hesitant to join for a variety of reasons, including fear and other factors that are only known to them. To get around this, the researcher will only interview people who are eager to participate and provide honest responses.

Restrictions to interview nurses at work might be a big challenge. To overcome this the researcher will ask for permission from Parirenyatwa Group of Hospitals authorities to interview nurses at a specified times like lunch time.

Since the study is about mental health issues, it may be difficult to ask respondents some questions because it is sensitive topic. To circumvent this obstacle, the researcher will guarantee the respondents that information which they have provided will be kept private and confidential and respondents are not forced to respond to any questions which are uncomfortable to them.

Bias is another issue to contend with. Some of the participants may not be forthcoming with their opinions, which could jeopardize the study's outcome. To address this, the researcher will dig deeper in cases where participants are not revealing honest information.

1.8 SUMMARY OF CHAPTER ONE

This chapter introduced the study on mental challenges experienced by nurses during COVID-19 pandemic at Parirenyatwa Group of Hospitals. It introduced the background to the study, statement of the problem, research objectives, and research questions, significance of the study, delimitations and limitations of the study.

CHAPTER TWO: LITERATURE REVIEW

2.1 INTRODUCTION

The purpose of this chapter was to discuss other studies on similar topic by different authors. Literature review allows a researcher to appreciate other scholarly findings and have a better understanding of the current research study. It describes the content and quality of knowledge already available, and readily presents the reader the significance of previous work (Okoli & Schabram, 2010).

2.2 CONCEPTUAL FRAMEWORK
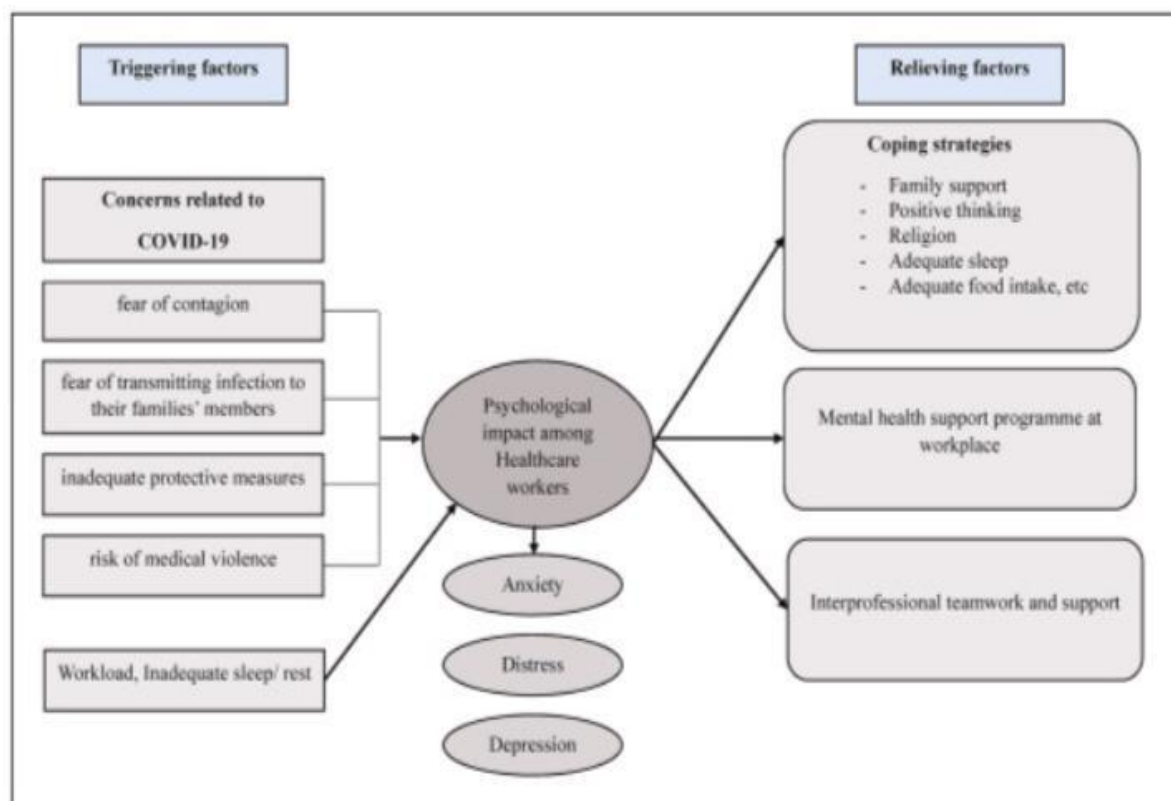
Source: International Journal of Environmental Research and Public Health, Volume 18, 2021

2.3 RELEVANCE OF THE THEORETICAL FRAMEWORK TO THE STUDY

Conceptual framework explains how the study is designed and its basis that guides a researcher in explaining theory and linking it to practice. According to Rakotsoane (2012), conceptual framework entails a model that guide a research study. In other words it is basis on which the research is founded on and lies. The relevance of a conceptual framework is that it enables a researcher to have a better understanding of certain phenomenon's and how they relate to the study, by connecting the researcher to existing knowledge guided by a relevant theory and giving a basis for choice of research method (Matthew Regan, 2017). This was useful in identifying the cause of mental instability of nurses at Parirenyatwa Group of Hospitals.

The framework above shows triggering factors during COVID-19 pandemic for example fear of contagion, inadequate protective measures, workload, inadequate sleep and rest .these factors aligned with the first objective because for the researcher to explore mental challenges faced, there was need to look into each triggering factor highlighted above in the framework. The framework highlights the most probable causes that can trigger nurse's mental health challenges.

The above framework shows relieving factors of family support, positive thinking, religion, mental health support programs and inter professional support. Nurses need support during the pandemic which help nurses to cope. These factors gave the researcher insight on what to explore to find answers on coping strategies employed by nurses at Parirenyatwa Group of Hospitals.

Factors highlighted in the framework of mental health support groups, inter professional support is the responsibility of the nursing management to ensure it is provided at the institution. These factors enabled the researcher to find out measures that were employed by the nursing management at Parirenyatwa.

Callista Roy's adaptation model (Roy 1976) was be co-operated in the study. The theory assumptions related to the person, environment, health and nursing. Callista Roy states that the person is submitted to a scheme that include the stimulus, which generates the coping mechanisms and results in the response of the individual, family or community which ends up supporting another stimulus. Callista Roy observed that stimulus can be of three types: focal, contextual, and residual. Relatively in the context of COVID-19 pandemic the correct management of focal

stimulus is critical, covering the signs and symptoms of COVID-19 such as fever, dry cough, and fatigue among other symptoms that worsen the illness as severe dyspnea. These symptoms stimulated nurse's mental health leading to fear of contagion, causing anxiety if not controlled. In contextual stimulus which can be defined with preexisting poor availability of safety in workplaces for nurses, for example a workplace prone to infection transmission due to unavailability of personal protective equipment, contribute to mental challenges of nurses as the situation is made worse during the pandemic. Regarding residual stimulus they are defined as internal and external factors, work related stress, stress related to high viral transmission.

In coping mechanisms there is religious belief for example believing all will be well as long as there is belief in God. Regulators and cognates, which include the physiological mode which dialogues directly with the individual physiology, revealing aspects related to the organism's situation and function. The cognate coping mechanisms pass through modes defined as self-concept, role function and interdependence. The self-concept mode defines coping as imminent demand to maintain psychic integrity, with a focus on psychological and spiritual aspects. The copying mechanism that works with the role function mode refers to the individual's ability to understand individual role in the world, self- knowledge that allow identification in society. The coping mechanism of the interdependence mode brings the affective demands of everyone, with the proposal of social distance it is common to observe anguish on the community, which has a peculiar demand to relate, for complete well-being.

The responses that reflect the individual's adaptive process was divided into adaptive and ineffective. The adaptive one promote the integrity of the human being, positively affecting health. The ineffective response, on the other hand, is when the individual is unable to cope effectively, compromising self-care and development. Therefore, Callista Roy's Adaptation Model was used by the research to come up with tangible results of the study. (Silva de Almeida, 2020).

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2.3.1 MENTAL HEALTH CHALLENGES EXPERIENCED BY NURSES DURING COVID-19 PANDEMIC

In this section literature on mental health challenges experienced by nurses will be clearly elaborated. Literature review in this section was explored through Pub Med search engine and Dominican University's Iceberg database. Literature from this section is divided into literature from developed and underdeveloped countries.

Many healthcare employees are at risk for mental health issues because of their work environment they spend most of their time providing high-demand patient care (Fernandez, 2021). Burnout is widespread among all health-care workers, and it has a negative impact on many aspects of health (Fernandez & Cherise, 2021). According to Moreno et al., (2020), COVID-19 pandemic has put a lot of strain on health care workers who have been on the front lines, and have to deal with a lot of work to combat the disease. COVID-19 originated in Wuhan, China, when tens of thousands of health care workers were dispatched across the country to aid local healthcare professionals in caring for these sick patients (Yao, Chen & Xu, 2020) and widespread burnout was noted among these health workers.

Moreover people with mental health illnesses are experiencing more symptoms, yet there is limited availability to services and assistance during the pandemic (chevance et al., 2020); Cortese et al., 2020);Hao et al., 2020; Kozloff et al., 2020; Narzisi, 2020; Wang et al., 2020; Yao et al., 2020). Early discharge of patients and disruption of direct psychiatric care are now prevalent in most institutions to deal with ward congestion, although this has negative implications such as symptomatic relapse, suicidality, inadequate access to medical care, and isolation at home (Chevance et al., 2020; Moreno det al., 2020).This has far reaching moral and practical implications (Beck and Wykes, 2020; Lora et al., 2017). COVID-19 limits, on the other hand, have limited family support for mental health treatment, which has detrimental implications (Moreno et al., 2020).

In a systematic review by Danet, (2021) nurses as professionals in the first line of assistance in 12 cross sectional articles on psychological impact of COVID-19 on Western frontline healthcare workers, authors showed percentages of stress among health care personnel ranged from 37% to 78%. In Italian areas with the highest prevalence of COVID-19 20% to 72 % anxiety symptoms

affected healthcare workers, anxiety mostly affected nurses (Giusti & Pedroli 2020). Symptoms of depression ranged from 25% and 31% in Italy to 64% and 65% in United Kingdom and Turkey (Chirico 2020). Sleep disorders were observed in 8% and 55% of the total samples in Italy, healthcare workers reported high (32%) and medium (36%) levels of emotional exhaustion and depersonalization (12% high and 14% moderate), with higher burnout among frontline personnel. In Asia depression, anxiety, insomnia and fear rates among health care professionals were 27.2%, 25.9%, 35.0% and 77.1% (Thatrimontrichai & Apisarnthanarak, 2021). Overall, the study showed COVID-19 affected healthcare workers mentally**.**

A cross sectional study conducted in two hospitals in Wuhan China, focused on front line nurses caring for COVID-19 patients (Hu et al., 2020). Nurses completed online questionnaires, burnout levels among nurses was measured using the Chinese version of the Maslach burnout inventory: human services survey (Hu & Ni, 2020).The survey showed that 835 frontline nurses reported levels of emotional exhaustion, 556 nurses marked high depersonalization while caring for COVID-19 patients (Hu & Ni, 2020). From the conducted study, the results demonstrated that many frontline nurses in Wuhan China experienced moderate levels of burnout as a result of increased patient workload according to (Hu & Ni, 2020).

Chen (2021) examined the presence of depression and anxiety in healthcare workers in China, a cross sectional study was used along with convenience sampling to get literature perspectives, workload and health conditions of health care workers. Depression and anxiety remains two of the most common psychological conditions in China, Many of the stressful events are out of the healthcare workers control, according to Chen 2021. High levels of anxiety at 29% and depressive features within healthcare workers was recorded (De Pablo et al, 2020). Nurses expressed that family members and friends avoided any relations with the nurses for fear of contagion (De Pablo et al., 2020).

Moreover, in developing countries for example Kenya a cross-sectional study conducted in three major hospitals among Health care workers using survey questionnaires with 433 participants, anxiety, depression, insomnia, distress and burnout were reported in 53.6, 44.3% 41.1%, 31.0%, 45.8% of all participants, respectively. (AIRifai, 2020).

In another cross sectional study in hospitals across United Arab Emirates, nurses making up more than half of the participants, information was gathered using the survey monkey platform to conduct an anonymous and self-reported online survey (Mateo 2020), a generalized anxiety disorder 7- item (GAD-7) scale was used (Spitzer 2006) and psychological distress (K10) scale a well validated self- report clinical measure of psychological symptoms (Saddik 2021). Among 268 nurses 55.7% had psychological distress and anxiety (Saddik et al., 2021). A study in Saudi Arabia found that 26.5% of health care workers reported moderate depressive and anxiety disorders during the COVID-19 pandemic. In the study it was found that female healthcare workers are likely linked to higher levels of anxiety and psychological suffering as a result of complex combination of biological, social and gender role requirements (Connor & Madhavan, 2020).

Health care workers with knowledge of COVID-19 and COVID-19 protective measures showed resilience and less stress (Lai & Wang, 2020). Nearly all participants believed public concern of COVID-19 was justified, on the contrary 44% thought it was dysfunctional (Saddik, 2021).The findings suggests that health care workers, nurses in particular those with higher perception of infection risk had a higher risk of depression, anxiety and distress (Lai 2020). Healthcare workers noted lower levels of fear among Chinese, because China experienced COVID-19 ahead of other countries in the world (WHO, 2020).

Changes in everyday duties might lead to stress, fear of infection, economic loss, lifestyle changes, changes in work schedules, and unfavorable mental health outcomes, according to Hsieh et al. (2020), Thobaity & Alshammari (2020), and Stuijfzand et al. (2020) leads to sleep problems, anxiety and suicide. As the epidemic spreads, psychiatric healthcare providers will be more concerned about patient treatment in the face of limited resources and the efficacy of their own COVID-19 protection. Long working hours and a lack of nourishment will also have an impact on them, leading to significant psychological anguish, Post Traumatic Stress Disorder (PTSD), and burnout (NIMHAS, 2020; Thobaity & Alshammari, 2020).

2.3.2 COPING STRATEGIES EMPLOYED BY NURSES TO DEAL WITH MENTAL HEALTH CHALLENGES

According to Lazarus and Folkman's Transactional Model to Stress and coping, coping refers to a cognitive and behavioral efforts that are constantly changing to master, reduce or tolerate a specific stressor appraised as exceeding one's available resources and abilities (Dardas & Ahmad 2015). Copying strategies are usually individualized and influenced by personal experiences, educational levels and resources available for them in a social context. (Zhao & Dai 2021)**.**

In this section six themes namely use of COVID-19 protective measures, avoidance strategy, social support, faith based practices psychological support and management support literature found by several researchers will be discussed.

In developed countries a cross sectional online study conducted by (Sheroun & Wankhar, 2020) on the nursing students found that COVID-19 protective measures have been used by the masses in different ways, along with the mentioned coping styles, avoiding public places or events, washing or disinfecting hands more often than usual avoiding public transport such as buses and trains. Awareness of these protective measures with reduced numbers of reported cases reduce the stress of the medical staff such as nurses (Cai & Tu, 2020). In contrast, a study by Ali and Cole (2020) mentioned that protective measures are not readily used by all nurses as copying strategies. The study indicated that only 75% of the participants reported that they follow all strict protective measures such as protective gear, face masks and hand washing to reduce their risk of infection. Cui and Jiang (2021) added that nurses should be trained for skills necessary to protect themselves COVID-19. Adequate understanding of COVID-19 could increase nurse's confidence and sufficient training should be offered (Zhang & Dai, 2020).

Avoidance strategy was also identified as a strategy used by nurses during the COVID-19 pandemic, avoidance refers to the act or practice of withdrawing or avoiding something unwanted (Ali and Cole 2020). A study conducted in Alabama by Ali et al., (2020) found that majority of participants reported avoiding media coverage providing updates on COVID-19 infection and mortality statistics. According to Sheroun and Wankhar (2020), erroneous news reports have also added to anxiety and fear. However a study by Ali and Cole (2020) pointed out that a reliance on

avoidance strategy for nurses could significantly limit their access to updated risk information, which may include improved studies or additional protective measures.

The third theme identified from literature as a strategy used by nurses during the COVID-19 pandemic is social support. Social support is one of the most effective means of coping with stressful events, it can come from spouse, relatives, friends, co-workers and community (Kim et al., 2008). Nurses should be supported at all times to make them happy at work (Gunawan & Marzilli, 2021). With the help of social support nurses stress responses can be significantly reduced (Cai & Tu 2020).

According to Hiton (2021), nurses in most developed countries resorted to seeking counselling from professionals to deal with the mental health challenges they were experiencing. The same findings were also noted by (Brent, 2021) who reported that the majority of nurses in developed countries about 83% had to use faith while some resorted to pray and sacrifice. This was the most widely adopted coping mechanism by nurses.

Another research by Yoku (2021) found that some nurses in developing countries resigned because they could no longer handle the situation. Yoku (2021) noted that some nurses in Africa some about 47% of nurses resigned in government health institutions and joined the private health sector where they got better salaries and better working conditions, including staff benefits and adequate personal protective equipment.

The National institute of mental health and neurosciences, (2020) concluded that the COVID-19 pandemic had far-reaching implications on mental health care delivery, with mental health workers bearing the brunt of these effects. Furthermore, according to NIMHANS (2020), most of the strain placed on mental health workers is due to the carelessness that plagues the care of psychiatric patients and psychiatric facilities during pandemics. As such some nurses would go to work twice per week or few hours a day as a coping strategy to mental health challenges.

2.3.3 MEASURES PUT IN PLACE TO MITIGATE MENTAL CHALLENGES FACED BY NURSES DURING COVID -19 PANDEMIC.

The COVID-19 pandemic caused major psychological effects on health care workers, to have a better control of the pandemic the healthcare workers needed to be taken care of to preserve their mental health whilst fighting against the virus. This section explored interventions put in place in developing and developed countries to mitigate mental challenges faced by nurses.

In developed countries like China according to a cross-sectional study using an online questionnaire on 540 health care workers in two TB medical institutions in Anhui province, (Fang et al., 2021).Three scales were used to assess social support, depression and loneliness namely, the perceived social support scale, the self-rating depression scale and the University of California, Los Angeles (UCLA) loneliness scale. The major findings revealed that healthcare workers needed one on one psychological counselling (Fang et al, 2021). Counselling services and peer support were considered as mostly needed (Fang et al., 2021).

In 25 hospital University Sahah's Nurses in Malaysia, evaluation of the handbook yielded positive results, the nurses reported positive qualitative feedback regarding techniques presented in the handbook (Ping & Zhang, 2020).

The second intervention was a mental health support team, peer support, and counselling mental health teams including psychiatrists, social workers, psychological counselors and psychiatric nurses. These professionals offered advice and support to health care workers. The intervention was used in Italy since April 2020 during the COVID-19 first wave, (Viteritti & Zace, 2021). Peer group psychological support enabled health care workers to share emotions and experiences. The intervention helped health care workers to share solutions of mental health challenges faced (Viteritti & Zace, 2021).

In developing countries mental health has been given less priority during the COVID-19 pandemic and received little attention from governments (Kovacevic, 2021). The findings were expected as mental health policies have generally not been priority in most Sub Saharan Africa countries (Ugochukwu & Mbaezue, 2020) for example by 2020, the Nigerian mental health services delivery policy had yet to be effected into law. In Zimbabwe the policy had been last reviewed in 1996 (Kidia & Mangezi, 2017). COVID-19 budget focused less on mental health but more on securing protective clothing and testing kits. (Jacob et al., 2020). Despite the lack of focus in mental health needs in the countries, some countries have initiated training of mental health and lay providers in psychological first aid to health manage the needs of health care workers (International Federation of Red Cross and Red Crescent Societies 2020). In Kenya training of mental health providers in psychological first aid and deployment to quarantine sites, hospitals and tele- counselling (Jaguga & Kwobah, 2020). In South Africa, frontline workers were provided with psychological support, establishment of the subcommittee of mental health psychosocial support in all different taskforce teams responding to COVID-19 and social media engagement by different partner both from the non-governmental organization world and government in Uganda. Five countries namely, Cameroon, Uganda, Tanzania, Kenya and South Africa, all have mental health guidelines or mental health components in the health guidelines (Scott & Kolstoe, 2020).

Furthermore, Hsieh et al., (2020) looked into the issues faced by health workers during the Severe Acute Respiratory Syndrome (SARS) outbreak in Taiwan (2002–2003) and linked them to COVID-19. SARS harmed healthcare professionals more than the general public, according to Hsieh and Jory (2020). In the findings, Hsieh et al., (2020) recommended that there is urgent need to put in place counselling sessions for nurses as well. It was noted that, in all hospitals and clinics nurses should be given enough basic salary including work benefits. This was linked to COVID-19 unusual path of transmission, as well as the fact that the virus was predominantly found in healthcare settings (Hsieh et al., 2020; Stuijfzand et al., 2020; Centres for disease Control and Prevention (cdc), 2003; Lee et al., 2003).

2.3.4 CHAPTER SUMMARY

The chapter discussed literature review. It focused on past and current studies conducted by other researchers on similar work. Various arguments from different researchers and scholars were the main discussion in this chapter. The following chapter discussed research methodology.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 INTRODUCTION

The previous chapter provided the mini literature on mental health effects among nurses. In this section, the researcher briefly explain the methodology and methods that were used to gather data, considering objectives of the study, research questions, limitations and scope. According to Creswell (2014) research methodology refers to the methods used to gather information for a particular study.

A quantitative approach was adopted, the researcher used quantitative data gathering techniques because it allowed the researcher to grasp information on the quantities, numbers based on measured values (McLeod, 2019). Analyzing quantitative data will allowed the researcher to explore ideas and further explain questionnaires results.

3.2 RESEARCH DESIGN

The researcher employed a quantitative research design. A research design is a structure that guides the execution of a research method and analysis of the data (Bryman and Bell, 2007). Quantitative design was utilized since it involves collection of views, perspectives and opinions of correspondents regarding the effects of COVID-19 on mental health among nurses at Parirenyatwa Group of Hospitals. The researcher used a cross sectional study which enabled the researcher to collect data from many different individuals at a single point in time. In this case, data was collected from red zone COVID-19 unit at Parirenyatwa Group of Hospitals. The type of study was used since it is appropriate to achieve the intended goals within the time frame of the research, moreover a cross sectional study was cheaper. The researcher used quantitative data gathering techniques. Quantitative data is information about quantities, and therefore numbers, based on measured values (Mcleod, 2019). The term survey applied to the collection of information from a sample of individuals through their responses to questions (Check & Schutt, 2012). Employment of a descriptive cross- sectional design allowed for collection of primary data through Survey questionnaires by the researcher.

Secondary data was collected from various websites databases, journals and other research projects conducted by known and reputable scholars. Analyzing quantitative data allow the researcher to explore ideas and further explain questionnaires results.

3.3 POPULATION AND SAMPLING

It is a group of people to which a researcher would like the results of the study to be generalized. It could also be a set of all cases of interest (Richardson, 2005) and might be initially any size or might cover almost any geographical area (Gay & Dioh 2002). Theoretically researchers could specify on even distinction of population called the study population. (Wolfer, 2007).

The study population comprised of nurses at Parirenyatwa Group of Hospitals working in the red zone unit. An age group of between 25- 59years was targeted, to come up with different views and opinions from nurses on effects of COVID-19 among nurses in the red zone unit. The study intended to find out nurses mental health effects experiences during COVID-19 pandemic. Hence it was appropriate to target nurses.

3.3.1 INCLUSION CRITERIA

Inclusion criteria in research consisted of key features of a target population that a researcher will use to answer their research question (Patino & Ferreira, 2018). The researcher included only nurses currently or those who once worked in the COVID-19 red zone unit at Parirenyatwa Group of Hospitals. These nurses were included because they had the information that the researcher wanted about their experiences during the pandemic. The number of days worked in the COVID-19 red zone was considered, only nurses who had worked in the unit for at least a month participate in the study, because they have enough exposure to come up with valid information needed by the researcher.

3.3.2 EXCLUSION CRITERIA

Exclusion criteria in research are the key features as inclusion criteria but with additional characteristics that could hinder success of the researcher and increase the risk for an unfavorable outcome (Patino & Ferreira, 2018). The researcher excluded nurses and other staff who do not work in COVID-19 red zone unit. This is because these nurses did not have the actual information that the researcher needed.

3.3.3 SAMPLE SIZE

Polit and Hungler (2008) defined a sample size as the total number of study participants chosen to represent the entire population.

The researcher came up with a sample size of 52 for this study using Raosoft sample calculator to calculate the sample, at 95% degree of confidence and a margin error of 5% and response distribution of 50%. The population of nursing health workers at Parirenyatwa Group of Hospital working as nurses in the red zone unit is 72.

Where n=Sample size

N=total population

e=Error tolerance

z=Value of confidence interval of 95%

P=population proportion

The following formula was used to get the sample size:

$X= z(^c/100)^{2r}(100-r)$

$n=^{Nx}/(N-1) E^2+x)$

$E=Sqrt \{(N-n) x/n(N-1)\}$

Therefore with a total population of 72 nurses at 95% confidence level the sample size for the study will be 52 .The sample size for this study was 52 nurses selected at Parirenyatwa Group of Hospitals in the red zone unit. The researcher came up with a sample size of 52 participants deemed by the researcher as a fair representation of Parirenyatwa Group of Hospital nurses population Nesbury (2010) suggests the larger the sample size the greater the probability the sample will reflect the general population.

3.3.4 SAMPLING AND SAMPLING TECHNIQUE

Purposive sampling technique was used by the researcher. This is a deliberately non -random method of sampling which aims to sample a group of people or setting with a particular characteristic. It is sometimes called judgment sampling where respondents are selected because they have knowledge that is valuable to research process (Bouling, 2002).This was deemed the best sampling technique to use by the researcher. The study purposively sampled a total of 52 nurses at Parirenyatwa Group of Hospitals Red Zone unit. Purposive sampling method was used because it was less time consuming and was based on researcher's personal convictions that the sampled people had the information needed.

3.4 DATA COLLECTION INSTRUMENTS

Leedy (2003) regarded a questionnaire as the most widely used technique for collecting primary data. This technique consists of a set of questions presented in written form to the respondents to obtain views of the participants or the research problem. A questionnaires was used by the researcher as they are easy to administer and for measurement of analysis to be possible since all respondents answered the same questions. The researcher used a questionnaire to collect data because they eliminated interviewer bias and guaranteed anonymity of respondents. The questionnaire had their draw backs such as difficulty in constructing them. In addition, the technique did not allow for further probing and collection of non-verbal cues.The method allowed the researcher to gather as much information as possible about experiences of nurses on mental health challenges.

3.5 PILOT STUDY

The researcher issued out the survey questionnaire which was distributed to five nurses to complete. This allowed the researcher to identify areas which needs clarification and avoid ambiguity in the questions. After that the researcher made alterations after receiving feedback from the five nurses.

3.6 DATA COLLECTION PROCEDURE

Before data was collected the researcher first sought permission from the authorities at Parirenyatwa Group of hospitals to conduct the research, followed by creating a rapport with nurses at Parirenyatwa Group of Hospitals in the Red Zone Unit, approaching and selecting of respondents to participate in the study. The researcher explained the research objectives purpose and data collecting procedure to respondents, so that they get an insight of the topic. After respondents are selected, the researcher made appointments with the respondents on interviews. The researcher ensured the appointment dates did not disturb the normal set up of the nursing duties by setting dates on less busy days. The primary data sources included filling up of questionnaires which were be issued out to the nurses in the red zone unit. The questionnaires were designed based on the objectives of the study, In addition, the questionnaires included the demographic data with the following information that is the age, gender , marital status, religion, years of experience, level of qualification and number of months worked in Red zone unit. Section B comprises of questions on mental health challenges faced by nurses during COVID-19 pandemic, section C the coping strategies employed by nurses and section D measures employed by nursing management to mitigate the mental challenges faced by nurses at Parirenyatwa group of hospitals in Red zone unit.

Primary data was gathered using survey questionnaire. The questionnaires provided data that is quantitative .The researcher issued questionnaires and gave the respondents time to fill them in. The respondents were ensured data collected will be kept private and confidential and locked in a cupboard by the researcher.

3.7 ANALYSIS AND ORGANIZATION OF DATA

On completion of data collection, data was analyzed to come up with tangible results. Data analysis is a process of scrutinizing and coding information and make interpretation of the findings. According to Creswell (2014), data analysis entails the process of interpreting and give meaning to raw data collected by a researcher from a field study. Data in this study was mainly based on the quantitative data collection. The researcher analyze the data soon after data collection, organizing, providing structure and eliciting meaning from the structured questionnaires. Presentation and analysis was based on the methods of collection. The procedures employed was

primarily designed to reduce and categorize large quantities of data into more meaningful units for interpretation (Singleton 2007). Bar graphs and tables were used after data interpretation, recommendation and solution of the problems are given.

3.7.1 VALIDITY AND RELIABILITY

An instrument is valid if it measures what is intended to measure accurately and achieves the purpose for which it was designed (Pattern 2004), (Wallen & Fraenbel 2001).Validity involves the appropriateness meaningfulness and usefulness of inferences made by the researcher on the basis of the data collected (Wallen & Fraenbel, 2001). Validity can often be thought as judgmental. According to Pattern (2004) content validity is determined by judgments on the appropriateness of the instrument content. Pattern (2004) identifies three principles to improve content validity.

1   Use a broad sample of content rather than a narrow one.
2   Emphasize import material
3   Write questions to measure the appropriate skill.

These three principles was addressed when writing the survey items to provide additional content validity of the survey. The principles results in a collection of broad range of data for example factual, attitudes, opinions, values and behavior. Writing of questions also helped in measuring accurate experiences and opinions of participants. Surveys emphasis on import material ensures a variety of opinions from different participants and also allows for addition of material to existing information in surveys.

3.8 ETHICAL CONSIDERATIONS

Ethical clearance permission

The ethical clearance to carry out the study was obtained from the respective authorities of Parirenyatwa Group of Hospitals by the researcher. A permission letter from Parirenyatwa Group of Hospital authorities was obtained by the researcher.

Informed consent

All participants involved in the research were issued with consent forms, written in venecular language which the participants understand. Since the participants are nurses the consent form was in English. The researcher ensured the participants understand the contents of the consent form to ensure transparency.

Right to privacy and confidentiality

The researcher also sought ethical clearance from the Africa University Research Ethics Committee (AUREC). The researcher obtained consent from respondents. The consent form was written in English only for ease of understanding of the participants. The guidelines comprises of information on voluntary participation, no harm to respondents, anonymity and confidentiality, identifying purpose and reporting. Each guideline addressed individually with explanations to help eliminate or control any ethical concerns. The researcher made sure that the participation is completely voluntary.

The researcher avoided possible harm to respondents this included embarrassment or feeling uncomfortable about questions. The study did not include sensitive questions that could cause embarrassment or uncomfortable feelings.

The respondent's identity was protected by exercising anonymity and confidentiality. Anonymity was adhered to, no names or anything that shows identification was used in the research. A coding methods was used to ensure anonymity instead of revealing names of respondents.

The researcher let all prospective respondents know the purpose of the survey and the organization that is sponsoring it. The researcher made sure the respondents are all aware of the purpose of the study.

Accurately report both the methods and the results of the survey to professional colleagues in the educational community. The researcher assumed this responsibility seriously and believes that the research accurately reported.

3.8.1   Information gathered by the researcher was kept safely locked in a cupboard and the researcher practiced professionalism and adhered to ethical principles of research.

3.8.2 Sanitizing, masking up and maintaining social distance during carrying out of the research was adhered to by the researcher.

3.9 CHAPTER SUMMARY

This chapter describes the procedure and methods that were used to gather the data. It discusses the research design, target population, sample and sampling techniques, data collection and instruments and ethical considerations.

CHAPTER FOUR: DATA PRESENTATION, ANALYSIS AND DISCUSSION'

4.1 INTRODUCTION

The previous chapter focused on research methodology and explained how data was collected including the instruments used. This particular chapter focuses on presentation and analysis of the results based on the research questions of the study. The data was presented and analysed using bar graphs, charts and tables. The chapter is organised as follows; response rate, demographic information of respondents and findings based on research questions for each objective.

4.2 DATA PRESENTATION AND ANALYSIS

4.2 RESPONSE RATE
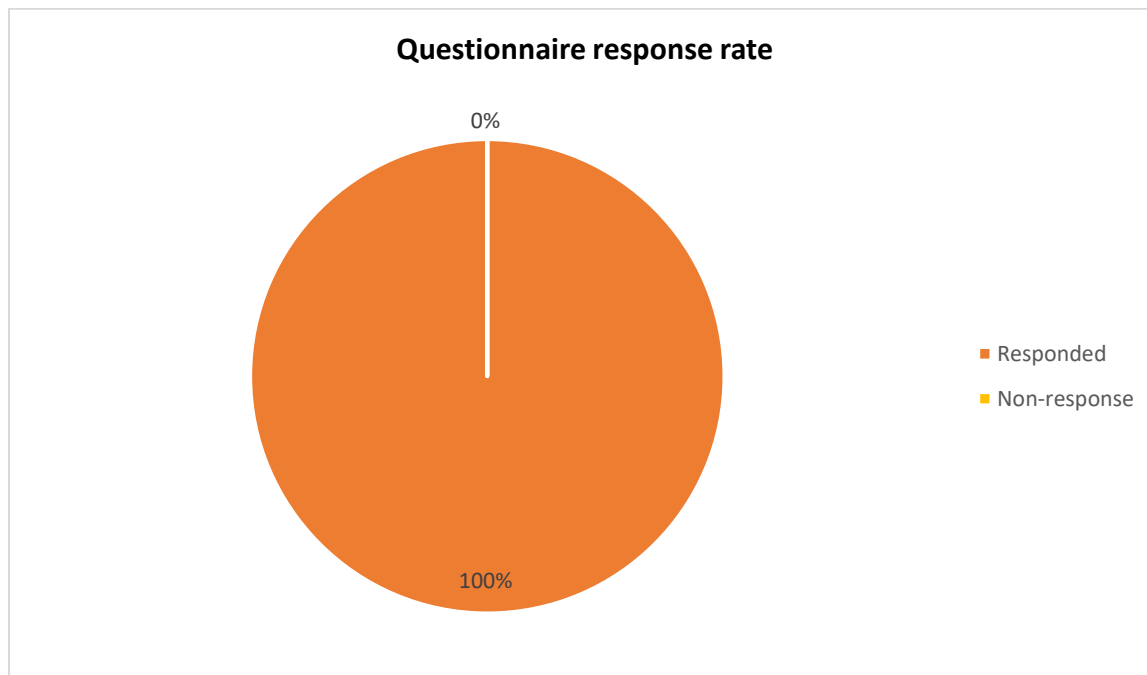
Figure 4.1: Questionnaire response rate

As shown on figure 4.1 (above), a total of 52 nurses were sampled to participate in the study so as to solicit information on the effects of Covid-19 on mental health of nurses at Parirenyatwa Group

of Hospitals. The figure indicate that all of the sampled participants managed to complete the questionnaires and returned them back to the researcher for evaluation and analysis hence the response rate was 100%. It can be noted that high response rate generated in this study could be because nurses were interested to participate and perhaps were given enough time to complete the survey forms. The findings are in line with Yin (2003) who argued that if respondents are given enough time to complete questionnaire forms they can produce a high response rate. Therefore the results of the study were reliable and accurate.

4.3 DEMOGRAPHIC DATA
4.3.1 GENDER
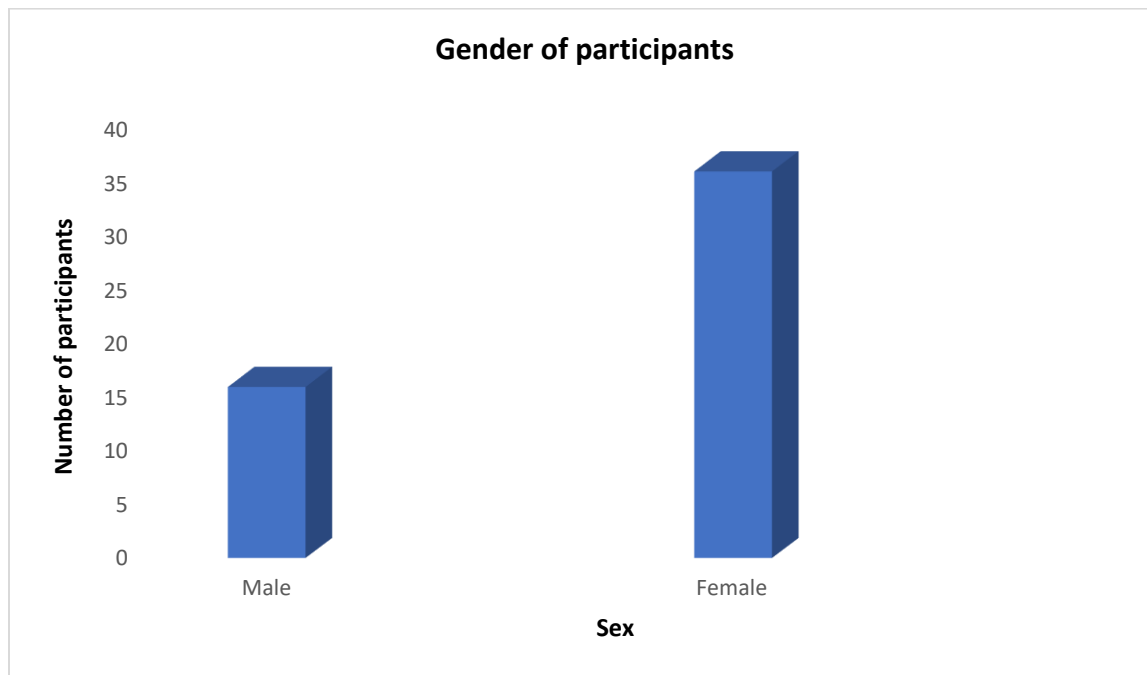
Figure 4.2: Gender of participants

Figure 4.2 (above) shows that 16 (31%) were male participants and 39 (69%) were male participants. The results shows that majority of the participants (69%) were female nurses. This could be because of the nature of the job in which most women enroll for nursing as compared to men. The results of the study are in agreement with Rakotsoane (2012) who argued that gender is

important in every study as it can influence the outcome of the results. The findings are also in line with Cherub (2017) who found similar results in which female nurses who participated in the study constituted to about 70% as compared to male nurses.

4.3.2 AGE

Age group	Number of participants	Percentage (%)
25-35	26	50
36-45	18	35
46-59	8	15

Table 4.1: Age of participants

Table 4.1 (above) shows that at the age group 25-35 there were 26 (50%) participants, at the ages of 36-45 there were 18 (35%) and at the ages of 46-59 there were 8 (15%). The results shows that majority of the nurses (50%) were between 25-35 years of age. This could be because the nursing practice has more young nurses as compared to older people. The same findings are in line with Hao (2020) who noted that, 73% of nurses were nurses younger than 35 years of age.

4.3.3 LEVEL OF QUALIFICATION

Level of qualification	Number of participants	Percentage (%)
Junior nurse	38	73
Senior nurse	14	27

Table 4.2: Participants level of qualification

Table 4.2 (above) indicates that 38 (73%) of the participants were junior nurses and 14 (27%) were senior nurses. The results imply that, Parirenyatwa Group of Hospital has more junior nurses and this could be because these nurses were employed recently because of Covid-19 pandemic. The same results are in line with Choudhry and Munawar (2020) who argued that, 65% of the respondents were junior nurses.

4.3.4 WORK EXPERIENCE
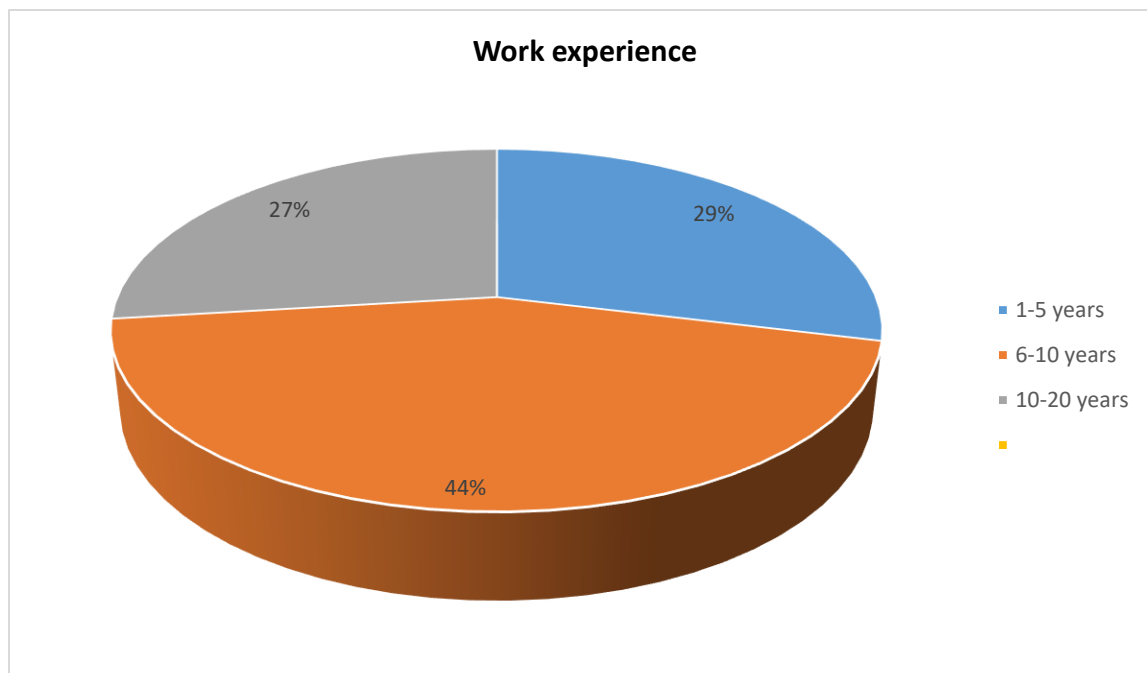
Figure 4.3: Work experience

As shown on figure 4.3 (above), 29% of the participants had worked for 1-5 years, 44% of the participants had at least 6-10 years working experience and 27% had at least 10-20 years of working experience. The results indicate that majority of the nurses (44%) had 6-10 years working experience and therefore this means that they were well experienced in terms of mental health challenges. The results are supported by Cai (2021) who noted that also, 50% of the respondents had at least 6-10 years working experience.

4.3.5 NUMBER OF MONTHS WORKING IN THE RED ZONE UNIT

No. of Months	No. of participants	Percentage (%)
1-6 months	6	12
7-12 months	37	71
13 months >	9	17

Table 4.3: Months working in the red zone

Table 4.3 (above) indicates that 6 (12%) of the participants had worked in the red zone unit for about 1-6 months, 37 (71%) had worked for about 7-12 months in the red zone unit and 9 (17%) had worked for about 13 and more months in the red zone unit. The results may imply that majority of the participants (71%) had worked for about 7-12 months hence they were experienced and understood mental health challenges.

4.4 MENTAL HEALTH CHALLENGES FACED BY NURSES

On this objective the researcher sought to find out the challenges that were faced by nurses at Parirenyatwa Group of Hospital. The results are presented as follows.
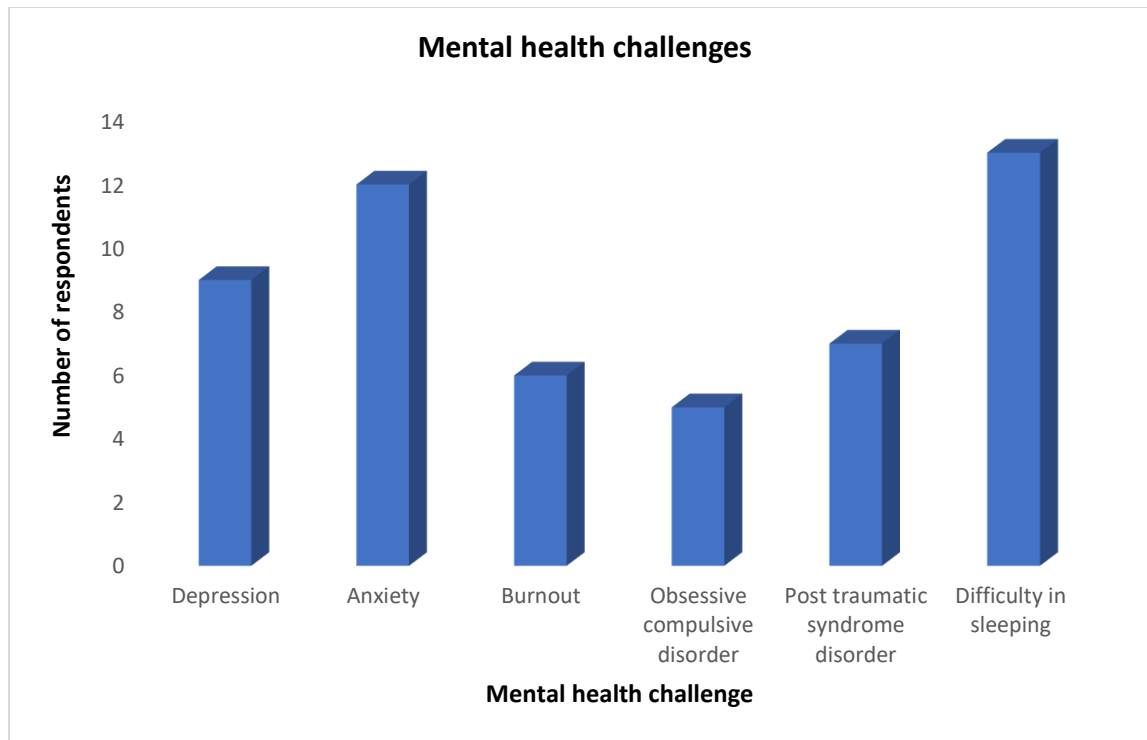
Figure 4.4: Mental health challenges faced by nurses

As shown on figure 4.4 (above), 9 (17%) participants said that they experienced depression as a mental health challenge during Covid-19 at Parirenyatwa Group of Hospital, 12 (23%) said they suffered from anxiety, 6 (12%) said they suffered from burnout, 5 (10%) mentioned obsessive disorder as their major challenge, 7 (13%) said they experienced post-traumatic syndrome disorder and 13 (25%) said they had difficulties in sleeping.

The study findings suggests that majority of the participants (25%) suffered difficulty in sleeping during Covid-19 pandemic. It can be noted that, nurses were working very long hours and under stressful conditions. These nurses risked their lives as frontline workers and were exposed to Covid-19 infection. The results shows that some nurses worked under very poor conditions and some were even admitted because of Covid-19 which increased their mental health challenges. The results are supported by Machando and Nyamukapa (2021) who noted that, most frontline

workers including nurses experienced difficulties in sleeping, anxiety, depression and also post-traumatic stress disorder due to Covid-19 pandemic.

4.5 COPING STRATEGIES EMPLOYED BY NURSES

On this objective the aim was to establish coping strategies that were adopted by nurses at Parirenyatwa Group of Hospital during Covid-19 pandemic.
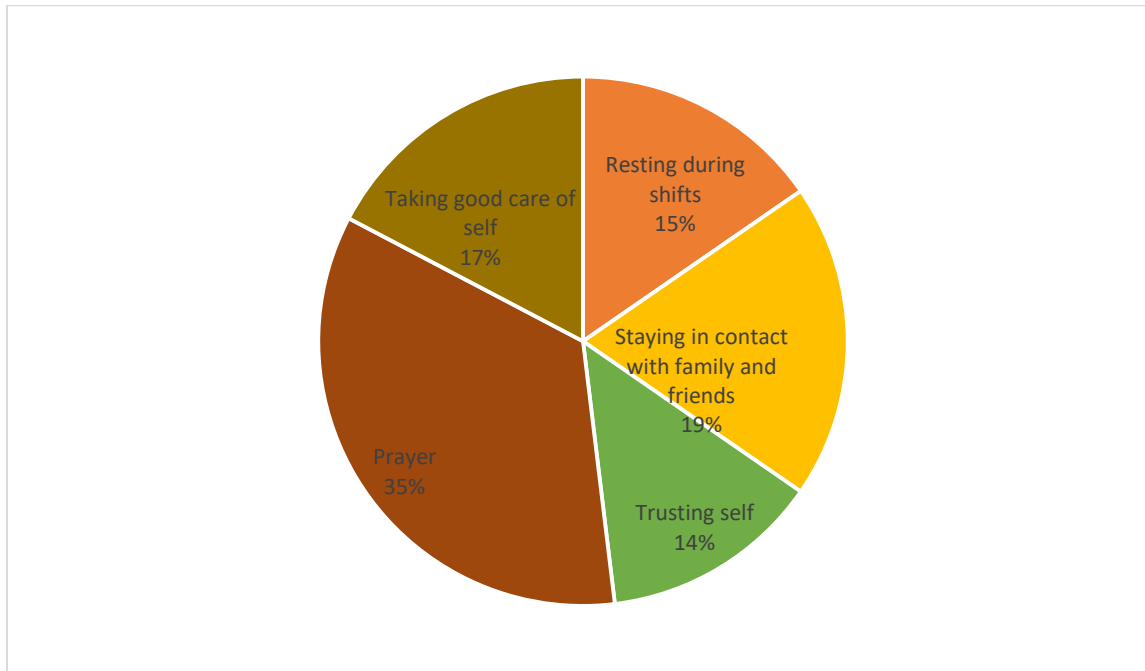
Figure 4.5: Strategies employed by nurses to manage mental health problems

Results of the study as shown in figure 4.5 (above) shows that, 15% of the nurses who participated in this study mentioned that they took rest during shifts at work to help themselves manage mental health, 19% of the nurses said that they stayed in contact with family and friends, 14% said they trusted themselves, 35% said they prayed to God to help them and 17% said they took god care of themselves. The results shows that majority of the respondents (35%) used prayer as the major coping strategy of mental health. The results shows that, nurses at Parirenyatwa Group of Hospital who worked in the red zone unit had many problems they were facing of dealing with Covid-19

patients. As such, sometimes nurses would work for long hours and exposed themselves to Covid-19 infection.

The findings of the study are supported by Lora (2017) who argued that, mental health is common challenge facing many healthcare professionals especially nurses. In time of pandemics and outbreak of diseases, nurses pray to God as the only way to help themselves and deal with their mental health challenges. The same was also supported by Kurevakwesu (2021) who established that, taking good care of yourself, resting during work and staying in contact with family and friends help to deal with mental health problems.

4.6 MEASURES EMPLOYED BY NURSING MANAGEMENT TO MITIGATE MENTAL CHALLENGES

On this objective the researcher sought to find out the measures implemented by the nursing management at Parirenyatwa Group of Hospital to deal with mental health challenges experienced by nurses. The results are as follows.

Measures	No. of participants	Percentage (%)
Reduced working hours	21	40
Covid-19 risk allowances	15	29
Counselling sessions	16	31

Table 4.4: Measures adopted by nursing management

Table 4.4 (above) shows the measures that were taken by the nursing management at Parirenyatwa Group of Hospital to deal with mental health challenges faced by nurses. The results shows that 21 (40%) of the participants said that the nursing management reduced the number of working hours by more than half the normal working hours before Covoid-19 came, 15 (29%) said Covid-19 risk allowances were given to nurses to cushion themselves and 16 (31%) said counselling

33

sessions were also conducted for nurses who tested positive for Covid-19 and also to all those who were working in the red zone unit. The results imply that, the measures employed by the nursing management were not permanent but rather temporal solutions to help nurses overcome mental health challenges.

The results of the study are supported by Arango (2020) who found that, the nursing management in Spain introduced Covid-19 risk allowances and also increased counselling services to all nurses working with Covid-19 patients throughout the country. The same findings are also supported by Beck and Waykes (2020) who established that the number of working hours for nurses was reduced by more than half the normal working hours before Covid-19 pandemic emerged in most developed countries.

4.7 DISCUSSION AND INTERPRETATION

The data collected in the chapter reveals that nurses at Parirenyatwa Group of hospitals were greatly affected mentally during the COVID-19 pandemic. Difficult in sleep being the most prominent of the several mental challenges faced namely, depression anxiety, burnout, post traumatic syndrome disorder and obsessive compulsive disorder.

4.8 CHAPTER SUMMARY

In summation, the findings of the study indicated that nurses were faced with a number of mental health challenges at Parirenyatwa Group of Hospital as the numbers of Covid-19 patients increased on a daily basis. Nurses were overwhelmed and this made a lot of nurses to experience stress, trauma, depression and anxiety. These nurses mainly resorted to prayer and practicing good health

to deal with mental health. The nursing management in response also reduced the number of working hours as well as provide Covid-19 risk allowances to cushion the nurses. The next chapter is going to focus on summary, conclusion and recommendations of the dissertation.

CHAPTER 5: SUMMARY, CONCLUSSIONS AND RECOMMENDATIONS.

5.1 INTRODUCTION

The chapter seeks to discuss and link the findings of this study and existing body of knowledge regarding the effects of COVID-19 pandemic on mental health among nurses. Three sub-themes emerged namely, the mental challenges nurses faced, coping strategies employed by nurses, and the strategies employed by nursing management to mitigate challenges faced by nurses during the COVID-19 pandemic, The researcher will identify the implications of the findings in chapter four. Lastly the conclusion and recommendation were discussed.

5.2 DISCUSSION OF THE FINDINGS

5.2.1 MENTAL HEALTH CHALLENGES FACED BY NURSES IN THE RED ZONE UNIT

Notably the findings revealed that nurses working in the red zone unit at Parirenyatwa Group of Hospitals mostly suffered from post- traumatic syndrome disorder with a greater percentage of 25% compared to other mental health challenges. Nurses had difficult in sleeping. Having difficulties in sleeping might have resulted from nurses finding no tangible solutions to the COVID-19 pandemic and simply patients death during everyday carrying out of their duties. Compared to countries in the developed countries like China and Italy, being the mostly affected due to their large numbers of affectedness. Anxiety, depression and burnout was the leading mental health challenges affecting them. In developed countries burnout, was noted most because the nurses had to take care of vast number of patients infected by COVID-19. However on the contrary, developed countries reported less statistics on mental health challenges because less heed was taken on mental health issues dating back to days before COVID and days of the SARS infection. Though countries for example Kenya had cross sectional studies done on mental health of health workers reporting also high levels of anxiety. In developing countries shortage of resources might have played a major role in contribution of factors which caused mental health challenges especially anxiety, inclusive of lack of prioritization of mental health among nurses during COVID-19 pandemic.

5.2.2 COPING STRATEGIES EMPLOYED BY NURSES

In the study several coping strategies were employed by nurses, namely, resting during shifts, taking good care of self, staying in contact with family and friends, trusting self and prayer. The

findings interprets that prayer was the most used strategy, with the greatest percentage of 35%. This method might have been used given the hopelessness that was being felt in the institution, with nurses resigning and moving to greener pastures, shortage of personal protective equipment and staff being the order of the day. Uncertainty of the prognosis of the COVID-19 pandemic. However, despite the difficulties nurses remained resilient during this period of the C0VID -19 pandemic. Similarly according to (Brent 2021). The nurses in western developed countries mostly used faith in about 83% and prayer. Therefore prayer was the major coping strategy used globally, and also used mostly by nurses in the red zone unit at Prirenyatwa Group of Hospitals.

5.2.3 STRATEGIES PUT IN PLACE TO MITIGATE MENTAL CHALLENGES FACED BY NURSE AT PARIRENYATWA HOSPITAL

 Amidst the COVID-19 pandemic, supporting systems proved to be useful. In developed countries, medical professionals like psychologist in China came together and trained other medical professional in counselling to help provide nurses with counselling services during COVID-19 pandemic. Efforts were made to provide nurses with information and knowledge on COVID-19 in online platforms. Countries like Italy even went as far as providing musical sessions for nurses to help calm their minds and reduce anxiety. Psychological first aid training for mental health providers was mostly used in many countries to mitigate the mental challenges faced by nurses.

In developing countries tasks teams were engaged who responded to COVID-19 like non-governmental organizations. The organization established subcommittees of mental health psychological support in the social media. Health guidelines on mental health components was established being guided accordingly by World health organization. That was the use of PPE, and COVID-19 protocols. Countries like Kenya, Uganda South Africa had the guidelines.

Focusing on the area of study at Parirenyatwa group of Hospitals, efforts were made by nursing management to mitigate mental challenges of nurses in the red zone unit at Parirenyatwa Group of Hospitals. Reduction in the number of working hours was introduced of more than half the usual working hours for the nurses. The results of the study reveal that reduced working hours might have helped in allowing the nurses to have adequate rest. As shown by a generous response of survey questionnaires with 40% response confirming reduction of working hours by nursing management. However as the numbers of COVID-19 cases increased. The results also show that

despite the difficult financial crisis worsened by COVID-19 the nursing management considered that nurses should be given a nurses COVID-19 allowance to cushion the financial crisis nurses faced during the pandemic. Therefore the allowance might have reduced the anxiety levels of nurses. Counselling sessions were provide for those nurses who tested positive to COVID-19 and those working in the red zone unit. The strategy proved to be a temporary measure considering that the institution need a proper mental health team who provide services to nurses during COVID-19 pandemic.

5.3 CONCLUSION

Nurses at Parirenyatwa Group of Hospitals experienced mental challenges like any other nurses in the face of COVID-19 globally. Depression, anxiety, burnout were faced, as a result the nurses ended up employing coping strategies for them to cope. However among the coping strategies used by nurses namely, prayer, keeping contact with relatives and friends, resting during shifts, prayer was the most commonly used. The nursing management made stringent efforts to mitigate nursing mental health challenges in the red zone unit by reducing working hours to almost more than half the usual working hours, giving nurses a COVID-19 allowance and providing counselling sessions. Noteably nurses mental health should be prioritized and permanent mitigating measures employed to assist nurses during pandemics.

5.4 IMPLICATIONS

The results of the study are of paramount importance, because further plans can be made basing on the gaps revealed in the findings. Assessing the study, less attention is being given to mental health of nurses in general. More needs to be done to prioritize mental health since viral pandemics will always be there, and if not managed well will haunt the medical professionals like nurses who will always be on the front line.

Positively, the coming of COVID-19 taught the institutions like Parirenyatwa to be adequately prepared for pandemics, although some of the factors are beyond their reach like shortage of resources for example intensive care machines. Hence the government need to put more effort to provide for the health care facilities even more to put more effort in looking for donators by having good relations with them.

Mental health challenges in nurses might be because of poor communication between the management and employees. Nurses need more remuneration and adequate resources so that they do not fear to carry out their duties. Even more a strong support system concerning mental health is needed to support them during times of pandemics.

5.5 RECOMMENDATION

The unprecedented challenge brought by COVID-19 pandemic is unique in Zimbabwe. Health workers in Zimbabwe are currently working under extreme pressure amidst limited health resources such as inadequate staffing, just over 3000 isolation beds and 40 ventilators for the population of 29 million. It is noteworthy that mental health has not received adequate attention from the government despite its high burden. Based on the study findings, we put forward the following recommendations for improving the mental wellbeing of nurses.

Firstly, there should be an enabling work environment with a good support system, adequate availability of PPE, proper training of health workers on management of COVID-19 and focus on incentives which boost their work morale. It is necessary to provide educational interventions for clearing of doubts of healthcare workers about COVID-19 and provide adequate logistical support to increase protection.

Secondly, personal and family sup-port might be required especially in those who have a history of medication for mental health problems. Finally, psychological intervention with a focus on health workers should be a part of preparedness to reduce its impact not only on their well-being but also on the health system at large.

Institutional agencies and supervisors should be able to recognize the detrimental effects of the pandemic on healthcare workers and should be willing to decrease working hours, apply flexible schedules and clearly assign roles and responsibilities to equally distribute the workload. Extended work shifts can potentially affect the overall health and predispose to higher risk of acquiring respiratory infections.

Recent reports raised awareness about skin disease, including abrasions and ulcerations, on the hands and face of healthcare workers due to the prolonged or repeated use of gloves/antiseptics or facial goggles/N95 mask, respectively. Therefore, staff should be given the opportunity to discuss

decisions regarding their tasks and the equipment they use, and should regularly be evaluated on their well-being.

Healthcare managers should promote adequate sleep, hygiene and take initiatives to supply healthcare workers with water, food and short break intervals. In addition, authorities, legislators and government agencies should show support and empathy in the event of adverse outcomes. Once the pandemic is over, affected and/or involved healthcare workers must be followed-up, supported, and long-term consequences should be appropriately treated.

5.6 SUGGESTION FOR FURTHER RESEARCH

A deep further research on the mental health of nurses working in other departments which are not the COVID-19 red zone unit is needed to ascertain if there is any difference in their mental state to those working directly with COVID-19 patients during the pandemic.

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APPENDIX 1: PROPOSED BUDGET

Item	Cost in (USD)
Transport	$30
Stationery	$10
Printing survey questionnaires	$10
Food	$15
Total	**$115**

APPENDIX 2: GANTT CHART

Activity	Dec 2021	Jan 2022	Feb 2022	March 2022	April 2022
Identification of Approval letter	███				
Proposal writing	███	███	███		
Submission to AUREC			███		
Permission to undertake study			███		
Data collection, entry, analysis				███	
Report writing, submission, of dissertation				███	
Study report presentation				███	

APPENDICES 3

English consent Form

Study title: Effects of COVID-19 on mental health among nurses at Parirenyatwa Group of Hospitals in Zimbabwe.
Principle investigator: Catherine Toendepi

Studying: post basic degree in nursing sciences at Africa University

Phone number: 0773164572

Address: Number 4 3^{third} Avenue Mabelreign Harare.

What you should know about the research
1. We give you this consent form so that you read about the purpose, benefits and risks.
2. The goal of the research is to understand effects of COVID-19 on mental health among nurses at Parirenyatwa Group of Hospitals.
3. The researcher cannot promise that the research will benefit you directly.
4. You have the right to refuse to take part, or agree to take part in the research at any given time during the research. Whatever you decide you will not be penalized.
5. Please read the consent form carefully, you are free to ask questions before making decisions.
6. Your participation is voluntary.

Purpose

You are being asked to participate in a study on effects of COVID-19 on mental health among nurses at Parirenyatwa Group of Hospitals.

Risks and discomforts
If you chose to participate, you will be asked questions and full interview will take 30 minutes of your time. The researcher will ensure safety from COVID-19 by maintaining COVID-19 guidelines of masking up, sanitizing and social distancing.

Confidentiality

The information collected by the researcher from you will be treated with strict confidentiality, by ensuring your name does not appear on the questionnaires. Numbers will be used in place of names to ensure anonymity. Information will be kept locked in a cupboard and no one will have access to it except the researcher. There are no incentives for participating in the study but information gathered will help improve and note gaps in dealing with challenges being faced by nurses during COVID-19 Pandemic.

Additional costs

No costs will be incurred on you and no risk of injury resulting from participation in the study.

Voluntary participation

Participation is voluntary and void of coercion. Decision of participating or not will not affect your relations as a nurse at the institution.

Before signing this form please you are free to ask questions if you do not understand the study at hand. You are allowed to take time as necessary to think over signing the form.

AUTHORIZATION

You are making a decision on whether or not to participate in this study. Your signature indicates you have read and understood the information provided above.

Signature of participant……………………………………………………

Date………………

Investigators

Signature…………………………………………………………………….

…………………

Date………………

Witness…………………………………………………Date………………YOU WILL BE OFERRED A COPY OF THIS CONSENT FORM TO KEEP.

APPENDIX 4 SURVEY QUESTIONAIRE

Questionnaire code ………………   **Date…………………..**

Demographic data

Please place a tick in the circle for your response

   1. What is your gender?

Female   ◯   Male   ◯

   2. What is your age?

18-25 ◯   26-25 ◯   36-45 ◯   46-55 ◯

   3. Marital status?

Single   ◯ Married   ◯   divorced   ◯ widowed   ◯

   4. What is your religion?

Christianity   ◯   Muslim   ◯   African tradition ◯   None   ◯

   5. Level of qualification?

Junior Nurse   ◯   Senior Nurse   ◯

   6. Years of experience?

1-5years   ◯   6-10years   ◯   10-20years   ◯

   7. Number of months working in the Red Zone Unit?

1-6months   ◯   7-12months   ◯   13months and more   ◯

   8. What is your level of seniority at the Hospital?

Junior nurse   ◯   senior nurse   ◯

Section B
Challenges faced by nurses

1. Have you ever tested positive for COVID?

Yes ◯   No ◯

If yes

2. How many times?

Once ◯   Twice ◯   More ◯

3. Were you admitted in hospital?

Yes ◯   No ◯

4. What was the longest period it took you to recover fully?

Two weeks ◯   Four weeks ◯ More than a month ◯

5. On average how many COVID-19 patients did you nurse per day during the peak of the pandemic?

1-5 Patients ◯   5-10 Patients ◯   10-20 patients ◯

6. Do you suffer from any chronic diseases?

Yes ◯   No ◯

7. Did you face any mental challenges since the beginning of COVID-19?

Yes ◯   No ◯   I don't know ◯

8. If yes, which mental health condition did you suffer from?

Depression ◯

Anxiety ◯

Burn out ◯

Obsessive compulsive disorder ◯

Post traumatic syndrome disorder ◯

9. If yes, how severe were the mental challenges?

Mild ◯   Severe ◯   very severe ◯

10. Did you face any shortages of PPE during the pandemic?

Yes ◯   No ◯

11. Did you face staff shortage challenges during the pandemic?

Yes ◯   No ◯

12. How can you describe access to mental health services by nurses during the pandemic?

Accessible ◯   less accessible ◯   not accessible ◯

13. Did you receive any mental health training concerning COVID-19 patient care?

Yes ◯   No ◯

Section C
Coping strategies employed by nurses
1. Did you employ coping strategies during COVID-19 pandemic?

Yes ◯   No ◯

IF YES:
2. What were the strategies that you employed to cope with mental health issues?

are you copying mentally as an individual?

Yes ◯   No ◯

3. As a nurse with a family at home?

Yes ◯   No ◯

4. As a nurse at work?

Yes ◯   No ◯

5. If no, do you think you need to change coping strategies you employed to improve your mental health during COVID- 19?

Yes ◯   No ◯

6. Are you happy with the copying strategies you employed?

Yes ◯   No ◯

Section D

Measures employed by nursing management to mitigate mental challenges faced by nurses at Parirenyatwa Group of Hospitals in the red zone unit.

1. Were any measures put in place by nursing management to mitigate nurse's mental challenges during COVID- 19?

   i.   At departmental level

Yes ◯   No ◯

   ii.   At the hospital level

Yes ◯   No ◯

   iii.   At national level

Yes ◯   No ◯

1. Were they effective in helping you cope with mental health challenges you were facing?

Yes ◯   No ◯

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2. Do you feel the management needed to employ more measures to mitigate the challenges?

Yes   ◯   No   ◯

3. What would you recommend as an effective strategy to mitigate mental health challenges caused by the pandemic among nurses?

APPENDIX 5:APPROVAL LETTER FROM PARIRENYATWA GROUP OF HOSPITALS.

All communications should be addressed to
"THE GROUP CHIEF EXECUTIVE"
Telephone: *701520-701554/7*
Fax: 706627
Website:www.parihosp.org

PARIRENYATWA GROUP OF HOSPITALS
P.O Box CY 198
Causeway
Zimbabwe

18 February 2022

RE: REQUEST FOR PERMISSION TO CONDUCT RESEARCH STUDY AT

PARIRENYATWA GROUP OF HOSPITALS : MS TOENDEPI CATHERINE

The above matter refers.

The Parirenyatwa Group of Hospitals hereby grants you permission to conduct research on:-

Effects of COVID 19 on Mental Health of Nurses at Parirenyatwa Group of Hospitals.

The permission is granted subject to the following conditions:-

1.   The researcher will provide all sundries necessary for sample collections.

2.   The researcher sponsors all payments for the tests involved.

3.   The hospital incurs no cost in the course of the research.

4.   All relevant departments are notified in advance and the
Head of section/ward signs acknowledgement of such notification.

5.   The conduct of the research does not interfer or interrupt the daily service
provision by the hospital.

6.   Formal written feedback on research outcomes must be given to the
Director of Clinical Services.

7.   Permission for publication of research must be obtained from the
Director of Clinical Services.

DR. M. MHLANGA

ACTING CLINICAL DIRECTOR