

**ASSESSMENT OF THE PSYCHOSOCIAL IMPACTS OF COVID-19
AMONG HEALTHCARE PRACTITIONERS AT TWO MAJOR
HOSPITALS IN LUSAKA DISTRICT**

BY

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DECLARATION

I, CHISANGA KUNDA, do solemnly declare that this dissertation represents my own work and that it has not been previously submitted for a degree, diploma or other at this or any other university or college. All the work of other people has been duly acknowledged.

Signature (Candidate)..... Date.....

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CERTIFICATE OF APPROVAL

This dissertation of **Chisanga Kunda** has been approved as partial fulfillment of the requirement for the award of the degree of Master of Arts in Social Work and Community Development by the University of Zambia.

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ABSTRACT

The present study assessed the psychosocial impacts of COVID-19 among healthcare practitioners in selected hospitals in Lusaka District. A survey research design was adopted in this study where 207 respondents were sampled from both UTH and Levy Mwanawasa Hospitals using simple random sampling. Self-rating Anxiety Scale (SAS) and the Participants Health Questionnaire (PHQ-9) were used for data collection. Being a descriptive statistics analysis, organized data was analyzed by means of frequency distributions and percentages to describe the characteristics of the healthcare practitioners and presented in tables, pie and bar charts. The analysis of data was done using SPSS version 26. Further, the data was analyzed using descriptive statistics like mean and standard deviation. Furthermore, bivariate and multivariate analysis were performed to assess precautionary measures which improved the psychosocial impact of COVID-19 among healthcare practitioners.

The results revealed that the majority of the participants reported fearing the disease and its consequences, especially death due to COVID-19. Further, the study showed that 60.9% of the participants reported to be depressed, 70.1% were stressed and 76.8% experienced anxiety. The level of severity of depression categorized as none, mild, moderate, severe and extreme severe stood at 15.5%, 5.3%, 12.6%, 33.3% and 33.3%, respectively. With respect to the severity level of stress, the majority were severely stressed followed by those who were moderately stressed (None 21.2%, mild 9.2%, moderate 23.2%, severe 40.6%, and extreme severe 5.8%). In addition, the results of the study revealed that most of the respondents severely developed symptoms of anxiety followed by those with moderate symptoms of anxiety. The findings of the study also showed that the respondents agreed that positive attitudes from colleagues, hand washing and wearing of face mask, observing social distancing protocols, avoiding social gatherings, exercising regularly, were commonly reported as ways of coping with the threat of the COVID-19 pandemic. In addition, precautionary measures such as handwashing, exercise regularly, leisure activities in free time and seek help from a psychologist were significantly associated with improved psychosocial impact of COVID-19 among healthcare practitioners in a multiple logistic regression model. Thus, the study recommended the need for the Government through the Ministry of Health and other stakeholders to put in place measures to mitigate the negative impact of COVID-19 on the mental health of healthcare practitioners. In conclusion, many health workers experienced stress, anxiety and depression during the COVID-19. This calls for mitigation measures because continued anxiety and depression can affect their work of taking care of the patients.

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DEDICATION

I dedicate this dissertation to my late Father Nason Kapata Matanga Chisanga.

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LIST OF ABBREVIATIONS

CI	: Confidence Interval
COVID-19	: Coronavirus Disease 2019
DASS	: Depression, Anxiety, and Stress Scale
FCW	: Fear of COVID-19 Scale
GHQ	: General Health Questionnaire
HADS	: Hospital Anxiety and Depression Scale
HCWs	: Health Care Workers
ICU	: Intensive Care Units
IPC	: Infection Prevention and Control
MERS	: Middle East respiratory syndrome
OR	: Odds Ratio
PPE	: Personal Protective Equipment
SARS	: Sever Acute Respiratory Syndrome
SGH	: Sarawak General Hospital
SPSS	: Statistical Package for Social Sciences
UTH	: University Teaching Hospital
EPSEM	: Equal Probability Selection Method
WPS	: Workplace Phobia Scale

CHAPTER ONE: Introduction and Background

1.0 Introduction

This research was designed to assess the psychosocial impacts of COVID-19 among healthcare practitioners at two major hospitals in Lusaka District. This chapter presents the background, the problem statement, the objectives and research questions of the study. It also gives the significance of the study, the scope and limitation of the study, purpose and justification.

1.1 Background of the Study

COVID-19 pandemic significantly impacted frontline workers since December 2019. Ever since December 2019, many people have been infected with the coronavirus around the world. As of January 8, 2023 over six hundred and sixty-two million (662,445,150) cases of COVID-19, with more than six million (6,704,827) deaths have been confirmed globally (World Health Organization, 2023). In many ways, this virus has caused fear, stress, anxiety, and adverse psychosocial impacts. The National Health Commission of China has released multiple reports about the mental health crisis related to coronavirus and its negative emotional, psychological, and social impacts on the medical workers (Kang et al., 2020). According to an article by Lai et al., (2020) there is a great concern on social and mental pressures on healthcare professionals during an outbreak. Other recent study suggested that compared to the general population, healthcare workers were more likely to experience the burden of depression, mainly because of fear of getting infected and passing it on to their family members and loved ones, lack of personal protective equipment, and working too many hours during the COVID19 pandemic (Krishnamoorthy et al., 2020).

Zambia was not spared; the first two cases were reported in individuals who had just returned from abroad on the 18th March, 2020. Since then, the country has counted up to 337,458 confirmed cases and 4,037 total deaths as of 16th January, 2023. During the time of the outbreak of COVID-19, health facilities were overwhelmed resulting in limited bed spaces, limited healthcare workers and oxygen was in short supply. During this time, healthcare workers had to take shifts spending up to six months in the COVID-19 hospitals (ZNPFI, 2022). These hospitals were turned into both residences for healthcare workers working in COVID-19 centers as well as places of work. This was due to the fear of spreading the disease to their families, loved ones and the community at large. Unfortunately, the country lost many (300) healthcare workers during the pandemic (ZNPFI, 2022).

Delgado Gallegos et al (2020), reveals that, previous reports have shown that in similar events in the past such as severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS) outbreaks, healthcare professionals experienced a great level of anxiety, fear, mental pressure, and symptoms of depression even after control of the outbreak. Delgado Gallegos et al (2020), also pointed out that, recent data have shown the most underestimated problem during this pandemic is every day increase of workload on healthcare professionals which can be triggered to developing anxiety and psychiatric disorders. Additionally, Xiang (2020), shows that, another factor that contributes to their stress is the fear of spreading this disease to many others. Due to this, professionals have reported feeling unprepared and confused when faced with treating COVID patients especially since equipment guidelines and treatments were not established in the beginning. As a consequence, this population reported feelings of helplessness, isolation, and uncertainty.

In a study by Wang et al (2020), it was discovered that, during the initial phase of an outbreak across China, more than half of participants reported as experiencing a moderate to severe psychological impact and with over a third of them showed signs of moderate to severe anxiety. Wang et al (2020), further, observed that, the main focus of public health departments and the World Health Organization was on how to prevent the spread of COVID-19 and protect our healthcare workers from exposure. Therefore, the research was necessary to assess the psychosocial impacts of the pandemic among the healthcare practitioners and look into ways to promote mental wellbeing among healthcare practitioners. The objective of the study was to assess the psychosocial impacts of COVID-19 among healthcare practitioners at two major hospitals in Lusaka District.

1.2 Statement Problem

COVID-19 brought out a lot of challenges among the healthcare practitioners the world over. It is essential to assess the psychosocial impact of this pandemic among healthcare practitioners to minimize the negative impacts of this pandemic as well as potential pandemics in the future among this group. Many of the healthcare practitioners have experienced high levels of stress and symptoms of both anxiety and depression. This is exceptionally worrisome and if left untreated, can lead to long-term mental health problems (Maryam Yazdanfar, 2021). With permission from the Catholic Church in the Archdiocese of Lusaka, the researcher conducted a pastoral visitation to the hospitals in Lusaka District. The researcher observed that healthcare practitioners were overwhelmed with work due to an increase in the number of COVID-19

patients. It was also observed that there was inadequate support from the relevant authority that is the Ministry of Health and healthcare workers working long hours during the COVID-19 pandemic. A number of studies have shown that, the most underestimated problem during this pandemic was an increase of workload on healthcare professionals which could lead to the development of anxiety and psychiatric disorders (Delgado-Gallegos et.al, 2020). For instance, a study which was conducted in China showed that panic disorder, anxiety and depression were the most widespread during the pandemic.

In addition, a review of existing literature on COVID-19 is showing that several studies have been done on the psychological effects of COVID-19 on the healthcare practitioners. Existing literature also shows that the main focus of public health institutions and the World Health Organization was on how to prevent the spread of COVID-19 and protect healthcare workers from exposure. There is little information regarding psychosocial impact of COVID-19 among healthcare practitioners in Zambia. Studies conducted in Zambia on the subject matter have focused on university students rather than health workers who directly handling the COVID-19 patients (Mudenda et al., 2021; Ncheke et al., 2023), thereby leaving the knowledge gap this study addressed. If the problem is left unchecked or not addressed, it may lead to deterioration of mental health of health workers, which in turn leads to higher levels of stress, depression, anxiety, increased fatigue, and sleep disturbances. This may affect the delivery of health care services to COVID-19 patients, thereby increasing mortality rate. Therefore, this research was set out to assess the psychosocial impact of COVID-19 among healthcare practitioners at two major hospitals in Lusaka District, Zambia and to recommend ways in which the mental well-being of healthcare practitioners could be promoted.

1.3 The purpose of the study

The purpose of the study was to assess the psychosocial impacts of COVID-19 among healthcare practitioners in selected hospitals in Lusaka District.

1.4 Objectives of the study

The objectives of the study are as follows:

- i. To determine the psychosocial impacts of COVID-19 among healthcare practitioners in Lusaka District.
- ii. To establish the magnitude of the psychosocial impacts of COVID-19 among the healthcare practitioners in Lusaka District.

- iii. To examine the interventions implemented to alleviate the psychosocial impacts of COVID-19 among healthcare practitioners in Lusaka District.

1.5 Research Questions

1. What was the psychosocial impact of COVID-19 among healthcare practitioners in Lusaka District?
2. What was the magnitude of the psychosocial impact of COVID-19 among healthcare practitioners in Lusaka District?
3. What interventions could be implemented to alleviate the psychosocial impact of COVID-19 among healthcare practitioners?

1.6 Scope and Limitation of the Study

The aim of the study was to assess the psychosocial impacts of COVID-19 among healthcare practitioners. Thus, the study was limited to all healthcare practitioners who were handling COVID-19 patients in two health institutions namely: University Teaching Hospital (UTH) and Levy Mwanawasa Hospital that were designated as epicenters in Lusaka District. The word 'psychosocial impact' was used in the sense of how COVID-19 affected the mental behaviour of healthcare practitioners and of the society as a whole. Healthcare practitioners, was referring to any licensed physician and any registered professional nurse, licensed social worker or any other individual who met such requirements of the law.

1.7 Significance of the Study

The findings of the present study may contribute to a greater understanding of the situation of the psychosocial impact of COVID-19 among healthcare practitioners and consequently, it may help the healthcare practitioners to be aware of the psychosocial impacts that come with pandemics. With the new experience and gained knowledge from the study, the findings may also have potential to contribute to the policy and planning that will need development to prevent future psychosocial impacts of the pandemics among healthcare practitioners. Additionally, the findings of the study may help the management of healthcare departments to advocate and support the well-being of healthcare practitioners during pandemics. Further, the findings may help healthcare practitioners with regard to self-care strategies during pandemics in order to prevent psychosocial issues. Furthermore, the findings of the study may add to already existing body of knowledge and be used as a point of reference in the future research.

1.8 Definition of terms

Psychosocial: The term ‘psychosocial’ has been defined as “the close relation between psychological factors (emotion, behaviour, cognition) and the socio-cultural context” (Psychosocial Working Group, 2003). It has been used to enhance the individuals' quality of life and well-being (Andersen et al., 2014).

Coronavirus: A type of virus that looks like a corona (crown) when viewed under a microscope. There are many different coronaviruses. Most cause mild respiratory infections like the common cold, but others can cause serious illness. The strain of coronavirus that is causing the COVID-19 pandemic is called SARS-CoV-2.

COVID-19: an illness caused by a novel coronavirus called severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2; formerly called 2019-nCoV), which was first identified amid an outbreak of respiratory illness cases in Wuhan City, Hubei Province, China.

Healthcare Practitioner: any licensed physician and any registered professional nurse, licensed social worker or any other individual who meets such requirements as defined by the law.

1.9 Organization of the Dissertation

This chapter provided the background of the study, statement of the problem, purpose of the study, research objectives and hypothesis, and scope and limitations of the study. Further, the chapter discussed significance of the study and operational definition of terms used in the study.

CHAPTER TWO: Literature Review

2.0 Introduction

This chapter deals with the review of related literature. It reviews the following sub topics: psychosocial impacts of COVID-19 on health workers at global level, psychosocial impacts of COVID-19 on health workers in Africa, psychosocial impacts of COVID-19 on health workers in Zambia, synthesis of literature gap, theoretical framework and conceptual framework.

2.1 Psychosocial Impacts of COVID-19 on Health Workers at Global Level

In Spain, Muñoz-Muñoz et al (2022) described the psychosocial impact of the COVID-19 pandemic on nurses working in intensive care units (ICU) and identify the related risk factors. This was a cross-sectional study, in which a self-administered questionnaire was designed to cover the dimensions of interest associated with psychosocial factors during the pandemic and their factor risks. A total of 456 nursing professionals participated, and 88.4% were women. Most of the professionals had a temporary contract (71.3%) and person at risk close to them (88.8%). Regarding psychosocial factors, there was a worsening in most of the associated variables, especially in sleep problems, anxiety, stress, and job performance. It was noted that female nurses were more prone to anxiety. Those under 30, as well as those with temporary contracts, were more unfocused. Professionals with a person at risk in their environment felt much more worried. The degree of exposure was associated with greater fear. The study concluded that nurses who were female, younger, and with a temporary employment contract were shown to be more vulnerable to the impact of the pandemic on their psychosocial health. The recommended the need to adopt effective strategies for the protection of nurses' health, focusing on the specific risk factors identified. Although the said study was insightful of the psychosocial impact of COVID-19 on health care providers but only nurses were included in the sample population thereby leaving the views of other health care providers on the subject matter. Therefore, the present study intended to include all health workers in the sample population in order to assess the psychosocial impacts of the pandemic on them.

Que et al (2020) investigated the prevalence of psychological problems in different healthcare workers (i.e., physicians, medical residents, nurses, technicians and public health professionals) during the COVID-19 pandemic in China and explore factors that are associated with the onset of psychological problems in this population during this public health crisis. A cross-sectional, web-

based survey was conducted in February 2020 among healthcare workers during the COVID-19 pandemic. Psychological problems were assessed using the Generalized Anxiety Disorder Scale, Patient Health Questionnaire and Insomnia Severity Index. Logistic regression analyses were used to explore the factors that were associated with psychological problems. The prevalence of symptoms of anxiety, depression, insomnia and the overall psychological problems in healthcare workers during the COVID-19 pandemic in China was 46.04%, 44.37%, 28.75% and 56.59%, respectively. The prevalence of the overall psychological problems in physicians, medical residents, nurses, technicians and public health professionals was 60.35%, 50.82%, 62.02%, 57.54% and 62.40%, respectively. Compared with healthcare workers who did not participate in front-line work, front-line healthcare workers had a higher risk of anxiety, insomnia and overall psychological problems. In addition, attention to negative or neutral information about the pandemic, receiving negative feedback from families and friends who joined front-line work, and unwillingness to join front-line work if given a free choice were three major factors for these psychological problems. Although the above reviewed study was insightful of the psychosocial impact of COVID-19 on health workers but the study was not conducted in Zambia as such it was not known whether similar results would prevail in the case of Zambia.

Islam et al (2020) investigate the prevalence of depression and anxiety among Bangladeshi university students during the COVID-19 pandemic. It also aimed at identifying the determinants of depression and anxiety. A total of 476 university students living in Bangladesh participated in this cross-sectional web-based survey. A standardized questionnaire was generated using the Google Form, and the link was shared through social media, Facebook. The information was analyzed in three consecutive levels, such as univariate, bivariate, and multivariate analysis. Students were experiencing heightened depression and anxiety. Around 15% of the students reportedly had moderately severe depression, whereas 18.1% were severely suffering from anxiety. The binary logistic regression suggests that older students have greater depression (OR = 2.886, 95% CI = 0.961– 8.669). It is also evident that students who provided private tuition in the pre-pandemic period had depression (OR = 1.199, 95% CI = 0.736–1.952). The study recommended the need for both the government and universities could work together to fix the academic delays and financial problems to reduce depression and anxiety among university students. The present study differs with the said study in that the sample population was not comprised of students but health workers. Further, the aforementioned study collected the needed

information using social media while the present study collected the data by physically by distributing questionnaires.

Mushir (2021) evaluated the anxiety and depression levels of dental hygiene students in Saudi Arabia during COVID-19 lockdown period. A cross-sectional study was conducted among the dental hygiene students in Saudi Arabia to assess the psychological impact of the COVID-19 outbreak. Questionnaire was distributed to the students, which consisted questions regarding demographics, knowledge, and fear related to COVID-19 and validated self-reported anxiety screening scale (GAD-7), to assess the psychological impact. All the data were then subjected to statistical analysis. The results of the study revealed that students from King Abdul Aziz University and Prince Sattam University showed statistically higher anxiety score when comparing the GAD-7 questions. Students whose parents were unemployed during pandemic and the students from rural area had statistically greater anxiety level when compared to others. Also, anxiety levels were found to be significantly higher among students who slightly feared contacting the disease because of their profession. The present results demonstrate that dental hygiene students suffered from some form of anxiety ranging from mild anxiety to severe anxiety, reporting that they frequently felt nervous and were scared that something terrible would happen. Nevertheless, the sample population of the above reviewed study consisted of university students while the present study engaged health workers already working rather than students.

Syed and Nausheen (2022) assessed the anxiety and depression symptoms in healthcare professionals in Pakistan as a result of the coronavirus pandemic. A cross-sectional study was conducted from May to June 2020 and included six different hospitals in Pakistan. An English-language demographics questionnaire, a validated COVID-19 fear scale, depression scale PHQ-9 and anxiety scale GAD-7 were sent to doctors, nurses and paramedical staff via WhatsApp. Data were analyzed using descriptive statistics, Chi-square test and Student's t-test. A total of 400 participants were included in this study (response rate: 80.0%); 263 (65.8%) were doctors and 137 (34.3%) were nurses and paramedical staff. Of the participants, 57.0% were less than 40 years old and 18.3% were aged above 50. Most of the participants (n = 262; 65.5 %) experienced moderate levels of fear and 16.5% (n = 66) experienced a high level of fear. Moreover, 19.5% feared death and 56.5% reported social media to be responsible for increasing their fears. On the depression PHQ-9 and anxiety GAD-7 scales, 21.8% (n = 87) reported moderate to severe

depression and anxiety symptoms. A significant relationship was demonstrated between the depression level and age, education and profession ($P < 0.001$ each). Similarly, anxiety and depression scores were strongly related to the availability of personal protective equipment ($P < 0.001$). Though the aforesaid study was insightful of the anxiety and depression symptoms in healthcare professionals but it was carried out side Zambia as such it was not known whether similar findings would prevail in the case of selected hospitals in Lusaka, Zambia.

Kiat et al (2021) examine stress, anxiety, and depression among healthcare workers caring for COVID-19 patients in Sarawak General Hospital (SGH), Malaysia. This was a cross-sectional observational study conducted in SGH during the pandemic with an online self-administered questionnaire composed of two parts, the socio-demographic characteristics, and the Depression Anxiety Stress Scale (DASS). A total of 105 healthcare workers responded to this study. A questionnaire in both Bahasa Melayu and English was used. The findings showed that all healthcare workers had mild anxiety, with the majority experiencing mild stress (57.1%), and almost half of the respondents experiencing mild depression (41%). Female subjects had a significant higher mean score in anxiety level and stress level compared to male subjects (10.0 ± 3.20 vs. 8.6 ± 2.93 , $p < 0.05$; 14.1 ± 4.76 vs. 10.7 ± 3.70 , $p < 0.05$, respectively). Staff who were transferred from other units to handle COVID-19 cases experienced more psychological symptoms. There were significant correlations between the depression, anxiety and stress levels among the healthcare workers and the number of children they had ($r = 0.739$, $p = 0.001$; $r = 0.642$, $p = 0.001$; $r = 1$, $p = 0.001$ respectively). However, the stress level among the healthcare workers was reversely correlated with their years of working experience ($r = -0.199$, $p = 0.042$). The said study highlighted very important results regarding the psychosocial impact of COVID-19 on health workers. However, the said study was carried out side Zambia as such with different environment and cultural settings, it was not known whether similar findings would be found in the case of selected hospitals in Lusaka, hence the present study.

Malik et al (2021) examined the associations between fear of COVID-19 and workplace phobia among doctors in Pakistan during the COVID-19 pandemic. An online survey was conducted among 421 doctors in Pakistan between April 10 and May 25, 2020. The Workplace Phobia Scale (WPS) and the Fear of COVID-19 Scale (FCV-19S) were the main psychometric instruments used in this study. The results of the study showed that there was a significant positive relationship

between fear of COVID-19 and workplace panic anxiety and workplace avoidance behavior. Significantly higher fear of COVID-19 was found among females compared to males, doctors with 5 years or less of work experience compared to those with more than 5 years, and postgraduate trainees compared with other ranks. Two groups (doctors who were above 30 years old and postgraduate trainees) were found to have higher levels of workplace phobia compared to their counterparts. Doctors with severe levels of fear of COVID-19 had significantly higher levels of workplace panic anxiety and workplace avoidance behavior. Therefore, fear of COVID-19 was significantly associated with workplace phobia which may negatively affect doctors' performance. Therefore, important steps are needed to protect doctors' health by providing sufficient resources to allay their fears and anxieties which consequently help them in carrying out their frontline duties in response to the COVID-19 pandemic. Nonetheless, the said study excluded other health workers such as nurses, as such, the psychosocial impacts of COVID-19 among these people was not assessed.

In Canada, Havaei et al (2022) examined the impact of various mental health symptoms experienced by nurses on quality and safety before and during the COVID-19 pandemic. A secondary analysis of cross-sectional survey data from 4729 and 3585 nurses in one Canadian province between December 2019 and June-July 2020 was conducted. Data were analyzed using between group difference tests and logistic regression. The study found that when compared to pre-COVID-19, during COVID-19, nurses reported a higher safety grade, a greater likelihood of recommending their units for care and lower quality of nursing care. Most mental health symptoms were higher during COVID-19 and higher levels of mental health symptoms were correlated with lower ratings of quality and safety both pre- and during COVID-19. Therefore, mental health symptoms have implications for nurses' quality and safety of patient care delivery, with the association between mental health symptoms and quality and safety following a dose response relationship before and during COVID-19. These findings suggest that it is worthwhile for nurse mental health symptoms to be included as hospital level performance metrics. Nonetheless, the above-mentioned study excluded other health workers such as physicians hence the psychosocial impacts of COVID-19 among these people was not assessed.

In Pakistan, Munawar and Choudhry (2019) examined the psychological impact of COVID-19 on emergency HCWs and to understand how they are dealing with COVID-19 pandemic, their stress

coping strategies or protective factors, and challenges while dealing with COVID-19 patients. Using a framework thematic analysis approach, 15 frontline emergency HCWs directly dealing with COVID-19 patients from April 2, 2020 to April 25, 2020. The semi-structured interviews were conducted face-to-face or by telephone. Data were analyzed using thematic analysis. Findings highlighted first major theme of stress coping, including, limiting media exposure, limited sharing of Covid-19 duty details, religious coping, just another emergency approach, altruism, and second major theme of Challenges includes, psychological response and noncompliance of public/denial by religious scholar. Participants practiced and recommended various coping strategies to deal with stress and anxiety emerging from COVID-19 pandemic. Media was reported to be a principal source of raising stress and anxiety among the public. Religious coping as well as their passion to serve humanity and country were the commonly employed coping strategies. Nevertheless, the aforementioned study did not examine the psychosocial impacts of the pandemic among the health workers, an aspect this study intended to address.

Kolivand et al (2023) evaluated the association between various factors and depression, anxiety, and stress among healthcare workers in the Khatam-Alanbia Hospital in Iran, after 2 years since the corona virus disease 2019 (COVID-19) pandemic. In this online cross-sectional study, 409 participants were selected and given a questionnaire about demographic, personal, and clinical characteristics as well as stressors related to COVID-19. The participants completed the General Health Questionnaire (GHQ-28) and the 42-item Depression, Anxiety, and Stress Scale (DASS-42) to report depression, anxiety, and stress/tension levels. The study found that the overall incidence of depression, anxiety and stress among health care workers during the COVID-19 pandemic was 44.25%, 50.62%, and 43.76%, respectively. Participants with severe to very severe depression, anxiety and stress accounted for 19.2%, 26.6%, and 18.2% of the sample, respectively. Being female was associated with higher odds of depression, anxiety, and stress. Although the said study was insightful of the levels of depression, anxiety and stress among health workers but the study was carried out side Zambia. As such, with different cultural settings and environment, it was not known whether similar findings would prevail in the case of Zambia.

In Norway Mulle et al (2020) carried out a systematic review to identify, assess and summarize research on the mental health impact of the COVID-19 pandemic on HCWs (healthcare workers).

The study utilized the Norwegian Institute of Public Health's live map of COVID-19 evidence on 11 May and included 59 studies. Six reported on implementing interventions, but none reported on effects of the interventions. HCWs reported low interest in professional help, and greater reliance on social support and contact. Exposure to COVID-19 was the most commonly reported correlate of mental health problems, followed by female gender, and worry about infection or about infecting others. Social support correlated with less mental health problems. HCWs reported anxiety, depression, sleep problems, and distress during the COVID-19 pandemic. The study assessed the certainty of the estimates of prevalence of these symptoms as very low using GRADE. Most studies did not report comparative data on mental health symptoms before the pandemic or in the general population. There seems to be a mismatch between risk factors for adverse mental health outcomes among HCWs in the current pandemic, their needs and preferences, and the individual psychopathology focus of current interventions. However, the said study was based on literature review while the present study was based on data collected from respondents. Further, the study did not assess the magnitude of the psychosocial impacts of COVID-19 among the health workers.

Wilson et al (2020) assessed the prevalence and predictors of stress, depressive, and anxiety symptoms among HCPs of India. It was a cross-sectional, online survey conducted in April 2020 among HCPs who are directly involved in the triage, screening, diagnosing, and treatment of COVID-19 patients and suspects. Stress was estimated using Cohen's perceived stress scale. Depression and anxiety were assessed using the tools Public Health Questionnaire-9 and Generalized Anxiety Disorder-7. Predictors were analyzed using univariate and multivariate binary logistic regression. A total of 433 online responses were obtained, and N = 350 were finally included. The prevalence (95% CI) of HCPs with high-level stress was 3.7% (2.2, 6.2), while the prevalence rates of HCPs with depressive symptoms requiring treatment and anxiety symptoms requiring further evaluation were 11.4% (8.3, 15.2) and 17.7% (13.9, 22.1), respectively. Women had approximately two times the increased odds of developing moderate- or high-level stress, depressive symptoms requiring treatment, and anxiety symptoms requiring further evaluation. Similarly, women staying in a hostel/temporary accommodation had two times the increased odds of developing depression or anxiety symptoms. Though the said study was insightful of the psychosocial impacts of COVID-19 among the health workers but the study was conducted outside

Zambia. Therefore, with different cultural settings and environment, it was not known whether similar results would prevail when a study was carried out in Zambia.

Lai et al (2019) assessed the magnitude of mental health outcomes and associated factors among health care workers treating patients exposed to COVID-19 in China. This cross-sectional, survey-based, region-stratified study collected demographic data and mental health measurements from 1257 health care workers in 34 hospitals from January 29, 2020, to February 3, 2020, in China. Health care workers in hospitals equipped with fever clinics or wards for patients with COVID-19 were eligible. A total of 1257 of 1830 contacted individuals completed the survey, with a participation rate of 68.7%. A total of 813 (64.7%) were aged 26 to 40 years, and 964 (76.7%) were women. Of all participants, 764 (60.8%) were nurses, and 493 (39.2%) were physicians; 760 (60.5%) worked in hospitals in Wuhan, and 522 (41.5%) were frontline health care workers. A considerable proportion of participants reported symptoms of depression (634 [50.4%]), anxiety (560 [44.6%]), insomnia (427 [34.0%]), and distress (899 [71.5%]). Nurses, women, frontline health care workers, and those working in Wuhan, China, reported more severe degrees of all measurements of mental health symptoms than other health care workers (e.g., median [IQR] Patient Health Questionnaire scores among physicians vs nurses: 4.0 [1.0-7.0] vs 5.0 [2.0-8.0]; $P = .007$; median [interquartile range {IQR}] Generalized Anxiety Disorder scale scores among men vs women: 2.0 [0-6.0] vs 4.0 [1.0-7.0]; $P < .001$; median [IQR] Insomnia Severity Index scores among frontline vs second-line workers: 6.0 [2.0-11.0] vs 4.0 [1.0-8.0]; $P < .001$; median [IQR] Impact of Event Scale–Revised scores among those in Wuhan vs those in Hubei outside Wuhan and those outside Hubei: 21.0 [8.5-34.5] vs 18.0 [6.0-28.0] in Hubei outside Wuhan and 15.0 [4.0-26.0] outside Hubei; $P < .001$). Multivariable logistic regression analysis showed participants from outside Hubei province were associated with lower risk of experiencing symptoms of distress compared with those in Wuhan (odds ratio [OR], 0.62; 95% CI, 0.43-0.88; $P = .008$). Frontline health care workers engaged in direct diagnosis, treatment, and care of patients with COVID-19 were associated with a higher risk of symptoms of depression (OR, 1.52; 95% CI, 1.11-2.09; $P = .01$), anxiety (OR, 1.57; 95% CI, 1.22-2.02; $P < .001$), insomnia (OR, 2.97; 95% CI, 1.92-4.60; $P < .001$), and distress (OR, 1.60; 95% CI, 1.25-2.04; $P < .001$). Though the aforesaid study was insightful of the psychosocial impacts of COVID-19 among the health workers but the study was conducted outside Zambia. Therefore, with different cultural settings and

environment, it was not known whether similar results would prevail when a study was carried out in Zambia.

Shaukat, Ali and Razzak (2020) conducted a review study aimed at summarizing the evidence of the physical and mental health impacts of COVID-19 pandemic on health-care workers (HCWs). The study used the Arksey O'Malley framework to conduct a scoping review. A systematic literature search was conducted using two databases: PubMed and Google Scholar. The study found 154 studies, and out of which 10 met our criteria. The study collected information on the date of publication, first author's country, the title of the article, study design, study population, intervention and outcome, and key findings, and divided all research articles into two domains: physical and mental health impact. The study reviewed a total of 154 articles from PubMed (126) and Google Scholar (28), of which 58 were found to be duplicate articles and were excluded. Of the remaining 96 articles, 82 were excluded after screening for eligibility, and 4 articles did not have available full texts. Ten full-text articles were reviewed and included in this study. The findings of the study identified the following risk factors for COVID-19-related health impact: working in a high-risk department, diagnosed family member, inadequate hand hygiene, suboptimal hand hygiene before and after contact with patients, improper PPE use, close contact with patients (≥ 12 times/day), long daily contact hours (≥ 15 h), and unprotected exposure. The most common symptoms identified amongst HCWs were fever (85%), cough (70%), and weakness (70%). Prolonged PPE usage led to cutaneous manifestations and skin damage (97%), with the nasal bridge (83%) most commonly affected site. HCWs experienced high levels of depression, anxiety, insomnia, and distress. Female HCWs and nurses were disproportionately affected. Nonetheless, the aforementioned study was based on studies reviewed while the present study was based on the data collected from the respondents using a questionnaire.

Khanal et al (2020) identified factors associated with anxiety, depression and insomnia among health workers involved in COVID-19 response in Nepal. This was a cross-sectional web-based survey conducted between April 26 and May 12, 2020. A total of 475 health workers participated in the study. Anxiety and depression were measured using a 14-item Hospital Anxiety and Depression Scale (HADS: 0–21) and insomnia was measured by using a 7-item Insomnia Severity Index ISI: 0–28). Multivariable logistic regression analysis was done to determine the risk factors of mental health outcomes. Overall, 41.9% of health workers had symptoms of anxiety, 37.5% had

depression symptoms and 33.9% had symptoms of insomnia. Stigma faced by health workers was significantly associated with higher odds of experiencing symptoms of anxiety (AOR: 2.47; 95% CI: 1.62–3.76), depression (AOR: 2.05; 95% CI: 1.34–3.11) and insomnia (AOR: 2.37; 95% CI: 1.46–3.84). History of medication for mental health problems was significantly associated with a higher likelihood of experiencing symptoms of 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) while inadequate precautionary measures in the workplace was significantly associated with higher odds of exhibiting symptoms of anxiety (AOR: 1.89; 95% CI: 1.12–3.19) and depression (AOR: 1.97; 95% CI: 1.16–3.37). Nurses (AOR: 2.33; 95% CI: 1.21–4.47) were significantly more likely to experience anxiety symptoms than other health workers. Though the aforesaid study was insightful of the psychosocial impacts of COVID-19 among the health workers but the study was conducted outside Zambia. Therefore, with different cultural settings and environment, it was not known whether similar results would prevail when a study was carried out in Zambia.

Cabarkapa et al (2020) conducted a study titled the psychological impact of COVID-19 and other viral epidemics on frontline healthcare workers and ways to address it: A rapid systematic review. A systematic review using PRISMA methodology was used to investigate the psychological impact on HCWs facing epidemics or pandemics, using three electronic databases (PubMed, MEDLINE and CINAHL), dating back to 2002 until the 21st of August 2020. The search strategy included terms for HCWs (e.g., nurse and doctor), mental health (e.g., wellbeing and psychological), and viral outbreaks (e.g., epidemic and pandemic). Only studies with greater than 100 frontline HCWs (i.e. doctors or nurses in close proximity to infected patients) were included. A total of 55 studies were included, with 53 using quantitative methodology and 2 were qualitative. 50 of the quantitative studies used validated measurement tools while 5 used novel questionnaires. The studies were conducted across various countries and included people with SARS (13 studies), Ebola (1), MERS (3) and COVID-19 (38). Findings suggest that the psychological implications to HCWs are variable with several studies demonstrating an increased risk of acquiring trauma or stress-related disorders, depression and anxiety. Fear of the unknown or becoming infected were at the forefront of the mental challenges faced. Being a nurse and being female appeared to confer greater risk. The perceived stigma from family members and society heightened negative implications; predominantly stress and isolation. Coping strategies varied amongst the contrasting sociocultural settings and appeared to differ amongst doctors, nurses and other HCWs.

Implemented changes, and suggestions for prevention in the future consistently highlighted the need for greater psychosocial support and clearer dissemination of disease-related information. Nonetheless, the aforementioned study was based on studies reviewed while the present study was based on the data collected from the respondents using a questionnaire.

2.2 Psychosocial Impacts of COVID-19 on Health Workers in Africa

Temesgan et al (2022) assessed the adherence to COVID-19 preventive practice and associated factors among pregnant women in Gondar city, northwest Ethiopia. A community-based cross-sectional study was conducted from July 1st to 30th, 2021, in Gondar city. A cluster sampling technique was employed to select 678 pregnant women. Data were collected using a pre-tested, face-to-face interviewer-administered questionnaire. Data were entered into EPI DATA version 4.6 and exported to SPSS version 25 for analysis. Both bivariable and multivariable logistic regression analysis was fitted to identify associated factors. Adjusted odds ratio with a 95% confidence interval was used to report the association between covariates and the outcome variable. The results showed that the prevalence of good adherence to COVID-19 preventive practice was 44.8% (95% CI: 41.3, 48.7). Maternal age (≤ 24 years) [AOR = 2.89, 95% CI: 1.37, 6.10], maternal education (secondary school) [AOR = 2.95, 95% CI: 1.58, 5.53] and (college and above) [AOR = 4.57, 95% CI: 2.42, 8.62], having ANC follow up [AOR = 2.95, 95% CI: 1.35, 6.46] and adequate knowledge towards COVID-19 [AOR = 1.70, 95% CI: 1.20, 2.41] were significantly associated with good adherence to COVID-19 preventive practice. Nevertheless, the focus of the aforementioned study was not to assess the psychosocial impacts of COVID-19 on health workers, an issue which the present study intended to address in Zambia.

Feliciano et al (2022) examined the impact of the COVID-19 pandemic on self-reported burnout of health workers, quality of care, and perceptions of COVID-19-related stigma in Mozambique. A cross-sectional quantitative assessment of 170 frontline health workers in Nampula District, Mozambique, including 149 (87.6%) primary care providers and 21 (12.4%) mental health specialists was conducted. It was noted that out of the 170 frontline workers, only 10.1% of frontline workers experienced more professional burnout, whereas 33.3% felt it had lessened. The perceived impact on quality of care also varied, without any significant deference by sex, education level, or mental health training background. Compared to the beginning of the COVID-19 pandemic in March 2020, 42.3 and 38.1% providers felt that their ability to provide mental health

and general health care, respectively, had worsened, compared to 57.7 and 61.9% who believed that either there was no change, or that the work had become easier. Likewise, 26.8% of providers felt that their ability to meet patients' needs had gotten more difficult, whereas 43.4% reported no change and 29.8% reported that it was easier. Twenty-two percent of providers reported an overall increase in caseloads since before the pandemic whereas the majority (67.9%) reported a decrease. The study also noted that providers believed that 57.1% of people in general were afraid of people with COVID-19, 27.5% were afraid of a person recovered from COVID-19, and 39.9% were afraid of a person with family members with COVID-19. The perceived stigma about healthcare professionals was also low; only 27.4% believed that people in general were afraid of healthcare providers who deliver care to people with COVID-19. Though the aforementioned study was insightful of the psychosocial impact of COVID-19 on health workers but the study was carried out side Zambia. Therefore, it was not known whether similar findings will prevail if a similar study was carried out in Zambia especially in Lusaka.

Dawood, Tomita and Ramlall (2022) carried out a study whose aim was to measure and understand this psychological impact on public sector doctors and nurses in KwaZulu-Natal Province, South Africa. This cross-sectional electronic survey was conducted from August to October 2020, following the first surge of the pandemic in the country, and included 312 participants. Depression, anxiety and stress symptoms were assessed with the Depression Anxiety and Stress Scale- 21 item and post-traumatic stress was measured by the Impact of Events Scale-Revised version. Measures of employer support were assessed using an adapted closed-ended questionnaire. The participants' mean age was 36.6 ± 9.3 years with three quarters being male ($n = 234, 75.0\%$) and predominantly ($n = 214, 72.3\%$) medical doctors. Numbers of participants with depression, anxiety and stress were 121 (51.5%), 111 (47.2%) and 104 (44.3%) respectively, with 38 (16.2%), 50 (21.3%) and 38 (16.2%) in the combined severe/ extremely severe range, respectively. On the Impact of Events Scale-Revised, 34 (13.7%) participants were in the severe range. Subjectively, 63.0% felt that their concerns were not heard, 75.1% did not feel cared for and 81.1% and 74.0% did not feel physically or psychologically supported, respectively. High levels of depression, anxiety, stress and traumatic stress, combined with poor perceptions of employer support, highlight the need to identify and address the psychosocial support needs and expectations of healthcare workers for the duration of the pandemic, as well as for the mental health sequelae post pandemic. Although the said study was insightful of the psychosocial impacts of COVID-19 on health workers but the study was not

conducted in Zambia. As such, it was not known whether similar results would prevail if a similar study was conducted in Zambia with different characteristics of the sample population.

Apanga and Kumbeni (2021) assessed adherence to COVID-19 preventive measures and its associated factors among pregnant women in Ghana. A cross-sectional study in the Nabdam district, Ghana was conducted. Data were collected from 527 pregnant women randomly selected from antenatal care clinics from 16 healthcare facilities. Descriptive statistics were used to assess the prevalence of adherence to COVID-19 preventive measures. Multivariable logistic regression was used to estimate the factors associated with COVID-19 preventive measures, whilst adjusting for potential confounders. The findings of the study showed that the prevalence of wearing a face mask was 18.0% (95% CI: 14.73%, 21.32%); of hand washing/hand sanitizing was 31.7% (95% CI: 27.70%, 35.67%), and of social distancing was 22.0% (95% CI: 18.46%, 25.56%). Multivariable logistic regression analysis revealed that knowledge of COVID-19 symptoms [Adjusted odds ratios (OR): 2.86, 95% CI: 1.03, 7.89] and knowledge of COVID-19 transmission via contaminated surfaces/objects (OR: 4.60, 95% CI: 1.23, 17.18) were associated with wearing a face mask. Pregnant women who knew that avoiding the touching of eyes, nose and mouth can prevent COVID-19 (OR: 2.71, 95% CI: 1.01, 7.28), and knowledge of the virus being transmitted via contaminated objects/surfaces (OR: 4.08, 95% CI: 1.42, 11.76), were associated with hand washing or hand sanitizing. Knowledge of COVID-19 transmission via contaminated surfaces/objects (OR: 15.27, 95% CI: 1.87, 124.43) was also associated with social distancing. However, the focus of the aforementioned study was not to assess psychosocial impact of COVID-19 on health care providers but rather to assess adherence to COVID-19 preventive measures and its associated factors among pregnant women.

2.3 Psychosocial Impacts of COVID-19 on Health Workers in Zambia

Mudenda et al (2022) carried out a study aimed at reviewing published studies on the effect of COVID-19 on the mental health of healthcare workers, associated factors and coping strategies that have been employed in Africa. The study was a systematic review that was conducted through searching databases including; PubMed/Medline and Google Scholar. The study included published literature from January 2020 to May 2022 that met the inclusion criteria. The selection of articles was conducted following the 2020 PRISMA guidelines. A total of 39 articles were retrieved, of which only 18 met the inclusion criteria and were used in this study. The study

revealed that healthcare workers experienced mental health disorders such as anxiety, depression, insomnia, stress and burnout that were associated with the COVID-19 pandemic. Coping strategies such as religious practices, support from family members and colleagues and avoiding listening to social media about COVID-19 were used to minimize mental health problems. However, the said study was based on literature reviewed while the present study used primary data collected in the field.

Ncheka et al (2023) assessed the relationship between mental health and COVID-19 health-protective behaviors in Zambian university students with symptoms of low mood. The study was a cross-sectional, online survey of Zambian university students. Participants were also invited to take part in a semi-structured interview to explore views about COVID-19 vaccination. Invitation emails were sent explaining the study aims and directed students who self-identified as having low mood in the past two weeks to an online survey. Measures included COVID-19 preventive behaviors, COVID-19-related self-efficacy, and Hospital and Anxiety Depression scale. A total of 620 students ($n = 308$ female, $n = 306$ male) participated in the study, with a mean participant age of 22.47 ± 3.29 years (range 18 – 51). Students reported a mean protective behavior score of 74.09/105 and 74% scored above the threshold for possible anxiety disorder. Three-way ANOVA showed lower COVID-19 protective behaviors in students with possible anxiety disorder ($p = 0.024$) and those with low self-efficacy ($p < 0.001$). Only 168 (27%) said they would accept vaccination against COVID-19, with male students being twice as likely to be willing to accept COVID-19 vaccination ($p < 0.001$). Of 50 students interviewed, 30 (60%) expressed fears about the vaccination and 16 (32%) were concerned about a lack of information. Only 8 (16%) participants expressed doubts about effectiveness. Nevertheless, the aforementioned study assessed the relationship between mental health and COVID-19 health-protective behaviors in Zambian university students rather than the health workers an aspect which was of interest in the present study.

Mudenda et al (2022) assessed the impact of the Coronavirus Disease (COVID-19) on the Mental Health and Physical Activity of Pharmacy Students at the University of Zambia. An online descriptive cross-sectional study among 273 undergraduate pharmacy students at the University of Zambia was conducted. A partial proportional odds regression model was used to determine the predictors of anxiety. All statistical tests were set at 95% confidence level ($p < 0.05$). A response

rate of 70% was obtained with the majority of the students being female 51.6%. Of the 273 respondents, 23.8% did not experience anxiety, 34.4% experienced mild anxiety, 24.9% experienced moderate anxiety while 16.9% experienced severe anxiety about COVID-19. It was also found that 61.2% of students reported that their attention to mental health increased during the COVID-19 pandemic whereas 44.3% reported an increased resting time with a significant reduction in relaxation 51.3% and physical activity 45.4% time. Factors that affected mental health included; reduced family care (OR: 2.27; 95% CI: 1.09-4.74), not changing attention to mental health (OR: 0.33; 95% CI: 0.18-0.62), being in the final year of study (OR: 0.33; 95% CI: 0.13-0.84), reduced time of resting (OR: 2.10; 95% CI: 1.26-3.50) and feeling helpless (OR: 0.42; 95% CI: 0.23-0.75). The study conclude that COVID-19 negatively impacted the mental health and physical activity of pharmacy students at the University of Zambia. Nonetheless, the said study focused on assessing the impact of COVID-19 on the Mental Health and Physical Activity of Pharmacy Students rather than the health care workers, hence this study.

2.4 Gap Analysis of Literature Review

While there has been much research regarding psychosocial impact of COVID-19 on health workers, the majority of these studies, however, were from developed countries. Although several studies have been conducted to assess psychosocial impacts of COVID-19 on health care providers, many of the findings differed in a number of respects including study populations, which differ in composition and cultural practices country to country, an issue that had received little attention. Some of the studies that has assessed the psychosocial impacts of COVID-19 has been done on students rather than health care providers. Interestingly, not all studies identified the same set of psychosocial impact of COVID-19 on health workers. Further, it was observed that in Zambia, little was known regarding the psychosocial impacts of COVID-19 on health care providers as studies reviewed have not underscored on the subject matter, thereby creating a knowledge gap this study intended to address.

2.5 Theoretical Framework

In the field of Social Work, theories are used to help establish a framework for how one can understand the relationship between human behavior and how that affects or is affected by multiple social systems. However, there was scant of theories in the review of literature that were suitable

to guide this research. Hence, the research used Neuman Systems Model which was supported by the reviewed literature to guide the study as it relates to healthcare practitioners.

Healthcare workers experience an enormous amount of stress while working in the high demanding conditions of the work environment. The Neuman Systems Model is a theoretical framework that revolves around the structure of stressors, the emotional response to these stressors, and the corresponding interventions. This framework establishes a holistic approach which incorporates five major factors which include, physiological, psychological, sociocultural, spiritual, and developmental (Kerime, 2017). With these factors, the goal is to organize intra-, inter-personal and extra-personal stressors.

With organizing how these stressors affect an individual, it may then help identify and analyze the main source of where the stress may be coming from. Whether it is internally or externally, using this model allows the individual to assess what the problem is, how they perceive it, and what can be done for relief. This model emphasizes the importance of incorporating the patient's needs as well as maintaining optimal wellness within ones' self. With implementing interventions that can help healthcare workers cope with stress related to burnout, it can lead to healthier coping mechanisms and a decrease in reporting high levels of burnout due to the pandemic. Therefore, the study used Neuman Systems Model because it attempts to assist healthcare practitioners to attain and maintain a maximum level of total wellness of the person.

2.6 Conceptual Framework

The conceptual framework for this study connects the relationship between COVID-19 and the psychosocial impacts among healthcare practitioners. In this case, our independent variable is COVID-19 while our dependent variable is the psychosocial impacts among healthcare practitioners. The moderating variable is an assessment. The conceptual framework entails that COVID-19 has the psychosocial impacts among the healthcare practitioners in a negative way. In other words, if independent variable (COVID-19) changes by one more unit, the dependent variable (psychosocial impacts among healthcare practitioners) will deteriorate according to the type of change caused by the independent variable. Conversely, when conducting this study, there will be some moderate variables the researcher might come across that may make it possible for the independent variable to achieve the status core of dependent variable. In this regard, our

moderating variable is assessment. However, an investigation of existing literature showed that COVID-19 leads to stress, depression, mental health issues, insomnia and burnouts which negatively affects the healthcare practitioners.

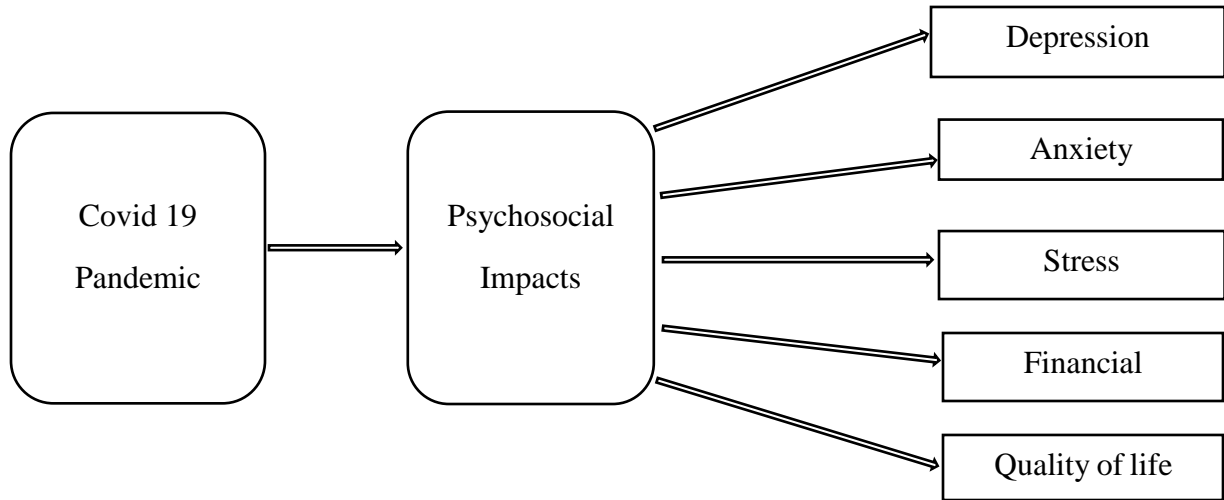


Figure 2.1: Conceptual Framework

Source: Researcher, 2023

2.6 Summary of Literature Review

This chapter reviewed literature of studies at global, Africa and Zambia levels. The chapter also highlighted the synthesis of literature gap, theoretical framework and conceptual framework as well as the chapter summary. The next chapter outlined the methodology that will be used in the study.

CHAPTER THREE: Methodology

3.0 Introduction

This chapter discusses the research methodology applied in this study. It deals with the description of research design, sample or respondents, instrument to carry out the study, procedures of the study or data collection technique, and tool used to analyze the data.

3.1 Research Design

This research generated quantitative data only. The researcher opted for quantitative study because of the way the research questions have been phrased. Creswell (1994) defines quantitative research as a sort of research that is explaining phenomena by collecting numerical data that are analyzed using mathematically based methods (in particular statistics). Quantitative technique has some kinds of research design that can be employed in various studies such as experimental design, correlation design, and survey design (Creswell, 2012). And for this research, the survey design will be used. A structured questionnaire was developed and delivered to every participant.

According to Creswell (2012), survey designs are procedures in quantitative research in which investigators administer a survey to a sample or to the entire population of people to describe the attitudes, opinions, behaviors, or characteristics of the population. Surveys studies help researchers to identify important beliefs and attitudes of individuals. Therefore, survey design was considered the most appropriate design for this research whose aim was to assess the psychosocial impacts of COVID-19 among healthcare practitioners. The survey was conducted in two public hospitals that were used as epicenters by the government of Zambia in Lusaka District. Namely, University Teaching Hospital (UTH) and Levy Mwanawasa Medical Hospital.

3.2 Research Setting

A survey research design was implored in two public hospitals that were used as epicenters by the government of Zambia in Lusaka District. Namely, University Teaching Hospital (UTH) and Levy Mwanawasa Medical Hospital. These hospitals were chosen because they were used as national isolations and epicenters of COVID-19. These hospitals offer both outpatient and inpatient care facilities. The facilities available in these hospitals include general medical and surgical services, psychology, social welfare, physiotherapy, occupational therapy, pharmacy, laboratory, pediatrics, OBGYN, community and emergency services.

3.3 Study Population

According to Creswell (2012), target population is a group of individuals (or groups of organizations) with some common general characteristics that can be identified and studied by researchers. Cooper and Schindler (2014), indicated also the target population includes those people that contain the desired information and can answer the measurement questions. Target population includes persons meant to be administered instruments. Polit and Beck (2004) also defined population as the aggregate or totality of those conforming to a set of specifications. Equally, Kombo and Tromp (2009) refer to population as a group of individuals, objects or items from which samples are taken for measurement. Thus, the study population involved all healthcare practitioners working in COVID-19 isolation wards at University Teaching Hospital (UTH) and Levy Mwanawasa Medical Hospital.

3.4 Inclusion and Exclusion Criteria

3.4.1 Inclusion

Montes de Oca Menezes (2017), defined inclusion criteria as the key features of the target population that the investigators will use to answer their research question. Typical inclusion criteria include demographic, clinical, and geographic characteristics. Therefore, the study included all male and female healthcare practitioners working in COVID-19 isolation wards in the two hospitals who were able to read, write in English and were 18 years and above.

3.4.2 Exclusion

Montes de Oca Menezes (2017), defined exclusion criteria as features of the potential study participants who meet the inclusion criteria but present with additional characteristics that could interfere with the success of the study or increase their risk for an unfavorable outcome. Thus, those not working in COVID-19 isolation wards, those who decline to consent and those who were on leave for the period of data collection were excluded from the study.

3.5 Sample Size and Sampling Method

According to Orodho (2002), a sample is a small portion of a target population. Any statements made about the sample should also be true of the population. Similarly, Orodho and Kombo (2002) say that a sample is a selected number of individuals or objects from a population. The sample size of the study refers to the number of items to be selected from the universe to constitute a sample. Hence, the sample size of the study included, 90 medical personnel from

the University Teaching Hospital (UTH) and 133 medical personnel from Levy Mwanawasa University Teaching Hospital. Therefore, the total sample size of the study is 223.

The researcher used Yamane's (1967) formula for calculating sample size of both hospitals, that is, University Teaching Hospital (UTH) and Levy Mwanawasa Medical Hospital. Below is the computation of the sample size.

N was the population size; e was the level of precision $\pm 5\%$; Confidence level 90% with $p = 0.05$; and n was the sample size.

University Teaching Hospital (UTH): N was the population size = 115; e was the level of precision $\pm 5\%$; Confidence level 90 with $p = 0.05$; and n was the sample size.

$$n = \frac{N}{1 + N(e^2)}$$

$$n = \frac{115}{1 + 115(0.05^2)}$$

$$n = \frac{115}{1 + 115(0.05)^2}$$

$$n = \frac{115}{1.28}$$

$$n = 89.84$$

$$n = 90$$

Levy Mwanawasa Medical Hospital: N was the population size = 200; e was the level of precision $\pm 5\%$; Confidence level 90 with $p = 0.05$; and n was the sample size.

$$n = \frac{N}{1 + N(e^2)}$$

$$n = \frac{200}{1 + 200(0.05)^2}$$

$$n = \frac{200}{1 + 200(0.05)^2}$$

$$n = \frac{200}{1.5}$$

$$n = 133.33$$

$$n = 133$$

Therefore, the total sample size of the study was 223 and the participants were sampled by the use of human resource (HR) tools in both institutions. Sampling refers to the process of selecting a portion of the population that conforms to a designated set of specifications to be studied. A sample is a subset of a population selected to participate in the study (Polit and Beck, 2004; Uys and Basson, 1991). A sampling technique is a plan that explains how the respondents for the study are to be selected from the population (Kasonde, 2013). This study used a simple random sampling. A simple random sampling is a probability sampling procedure that gives every element in the target population and each possible sample of a given size, an equal chance of being selected (Kombo and Tromp, 2006). As such, it is an equal probability selection method (EPSEM). The motivation behind using probability sampling is to generate a sample that is representative of the population in which it was drawn. Probability entails random selection. Random sampling does not guarantee that every random sample perfectly represents the population. Instead, it means that most random samples will be close to the population most of the time, and that one can calculate the probability of a particular sample being accurate (Kombo and Tromp, 2006). Therefore, the healthcare practitioners were the best source of rich and valuable information regarding their experiences on the psychosocial impacts of COVID-19.

3.6 Data Collection Instruments

According to Sugiyono (2012), research instrument is a tool used to measure observed natural or social phenomena. Kombo and Tromp (2006) identify the following as some of the research instruments that a researcher may use to collect data from the respondents. These include questionnaires, interviews schedules, Observations and focused group discussions.

This research used two instruments to collect data, Zung Self-Rating Anxiety Scale (SAS) which covers a variety of anxiety symptoms, both psychological (e.g., “I feel afraid for no reason at all” and “I feel like I’m falling apart and going to pieces”) and the Participants Health Questionnaire (PHQ-9), the depression module, which scores each of the 9 DSM-IV criteria as “0” (not at all) to “3” (nearly every day) (Dunstan and Scot, 2020; Kroenke, Spitzer and Williams, 2001). The questionnaire was adopted in this study because it was faster, efficient and inexpensive means of gathering large amounts of information. It was effective for measuring subject behavior, preferences, intentions, attitudes and opinions. The use of a questionnaire allows every participant to get a similar assessing tool to complete which results

in standardized responses (Burn, 2000). A structured questionnaire with closed ended questions in English was prepared and administered to every consenting healthcare practitioner of the selected hospitals: University Teaching Hospital (UTH) and Levy Mwanawasa University Medical Hospital, after obtaining approval from the Ethics and Research Committee of the University of Zambia, the management of the hospitals and National Health Research Authority. After that, the questionnaire was collected and analyzed. The questionnaire used was created by adapting questionnaires from past studies that studied the similar topic. Here, the researcher considered questionnaire from studies which assessed psychosocial impact of COVID-19 on Healthcare Workers in London.

The questionnaire consisted of two sections. Section 'A', Demographic Data describing the characteristics of the participants such as age, gender, religion and academic qualification. Section 'B', focuses on the psychosocial issues; aiming at assessing the psychosocial impacts; the magnitude of the psychosocial impacts and the interventions that can be implemented to alleviate the psychosocial impacts of Covid-19 among healthcare practitioners.

3.7 Methods of Data Processing and Data Analysis Procedures

Data processing is the process of manipulating data before data analysis takes place. The key activities in data processing are data entry; editing, coding, classification and tabulation (Creswell, 2013). Data entry always is aimed at converting the gathered data in a medium with a view of manipulating the information done in the data collected in the research. The response from different respondents was sorted out and grouped according to the correspondence with the research objectives. The sorted data was then compelled to identify the related data. Data editing was also done through the process of examining the collected data (raw data) in order to identify errors and omission and to make necessary corrections. The basic purpose of data editing was to secure quality and standard of the data collected.

In addition, coding which is one of the data processing stages was used in assigning the numerals or other symbols. Coding was necessary for efficient analysis and data was classified into groups based on common characteristics. In other words, classification was one way of putting responses of the same characteristics into a same group. Singh (2006) describes data analysis as a process of studying the organized materials so as to determine inherent or meaning. Welman et al. (2005) argue that data analysis by means of statistical techniques assists us in investigating variables as well as their effect, relationship and their patterns of involvement within our world. Data analysis refers to computation of certain measures of data

that go along with searching for the pattern of relationship that exist among data groups. In this study, quantitative analysis techniques were adopted. To facilitate the process of data analysis, the raw data collected was systematically organized for analysis. Being a descriptive statistics analysis, organized data was analyzed by means of frequency distributions and percentages to describe the characteristics of the healthcare practitioners. The data was analyzed by using Statistical Package for Social Sciences (SPSS) version 20 and presented in tables, pie-charts and bar charts. Further, the data was analyzed using descriptive statistics like mean and standard deviation. All data missing information was categorized to an unknown category for our study analysis. The information which was obtained from data analysis, was meant to draw up conclusions and recommendations. Data obtained from questionnaires was presented in percentages, bar graphs and pie charts. In addition, to see whether precautionary measures predicted reduction in psychosocial impact of COVID-19 among health workers, logistic analysis was performed with the dependent variable, psychosocial impact reduction (yes or no). The chapter also presented the demographic information of the respondents.

3.8 Reliability and Validity of Data

3.8.1 Validity

Validity is an aspect which is concerned with whether the findings are true. Saunders, Lewis and Thornhill (2019) define validity as a way of measuring how well a test has been done and what is supposed to measure in that test. To establish the validity of instruments in this study, across items (internal consistency) instrument was used by administering the same questionnaires to healthcare practitioners at two major hospitals in Lusaka District. The intention was to correct any errors that might appear before the main study. After across items (internal consistency), the questionnaire was reviewed by seeking an independent opinion on the quality of the instrument from the supervisor and others who are experts. The instrument was then being adjusted accordingly.

3.8.2 Reliability

Reliability is a measure of the degree to which a research instrument yields consistent results or data after repeated trials Mugenda and Mugenda (2003). According to Korb (2012), reliability is the accuracy of the scores of a measure. Reliability does not imply validity. That is a reliable measure is a measuring sometimes accurately, but not necessarily, what is supposed to be measured. In this study the researcher established the reliability of the questionnaire by

using across items (internal consistency). The researcher distributed the questionnaire guide to the healthcare practitioners at two major hospitals in Lusaka District and across items (internal consistency) was done.

3.9 Ethical Consideration

Ethics refers to the quality of research procedures, with regard to their adherence to professional, legal, and social obligations to the research participants. It is the branch of philosophy that deals with morality (Polit and Beck 2004). According to Cohen (2007), ethical issues is a matter of principled sensitivity to the rights of others and that while truth is good, respect for human dignity is better. Therefore, to proceed with data collection, the researcher obtained approval from the Ethics and Research Committee of the University of Zambia and the management of the hospitals. As this research involves human participants, it consequently, adhered to the following ethical principles:

3.9.1 Right to Self-determination

According to Burns and Grove (2001), the right to self-determination is based on the ethical principle of respect for a person. This means that participants must be given adequate information regarding the research; they must be capable of comprehending the information; and they must have the power of free choice, enabling them to consent voluntarily to participate in research or decline participation. The objectives of the study were explained to the participants, and their informed consent was obtained. Participants were informed of their rights to withdraw from the study at any time. The participants were continuously reminded and informed of their right to review the first agreement (process-informed consent).

3.9.2 Right to Confidentiality

According to Burns and Grove (2001:201), confidentiality is the researcher's management of private information shared by the participants, which must not be shared with others without the authorization of the participants. The researcher ensured and guard against unauthorized access to the data, and that the research data was only made available to the researcher and the supervisor.

3.9.3 Anonymity

Anonymity occurs when even the researcher cannot link a participant with the data of that person (Burns and Grove 2001). The researcher ensured that nobody accessed to the data

collected. Data was also being kept safe and revealing materials, such as names of participants, was withdrawn during the process of data collection, to ensure that there was no unnecessary disclosure of the identity of the participant.

3.9.4 The Right to Privacy

The researcher-maintained privacy in all personal matters arising from information coming from the participants. This might be in the form of feelings, beliefs or attitudes, and opinions. Raw data was protected from unauthorized persons, and was not shared and no names was linked to the data. Data was also kept safe (Burns and Grove 2001).

3.10 Chapter Summary

This chapter discussed the methodology employed in the study. Under methodology the items discussed include; research design, study area, study population, sample size, sampling procedures, data collection methods and instruments. Further data analysis, data validity and reliability as well as ethical issues were also considered in the chapter.

CHAPTER FOUR: Findings

4.0 Overview

The preceding chapter has provided the research methodology which was used in this study. This chapter provides data presentation and analysis of the findings resulted from the study research on the psychosocial impacts of COVID-19 among healthcare practitioners. The aim of the study was to assess the psychosocial impacts of COVID-19 among healthcare practitioners in selected hospitals in Lusaka District. The study was guided by research objectives which includes; to determine the psychosocial impacts of COVID-19 among healthcare practitioners in Lusaka District; to establish the magnitude of the psychosocial impacts of COVID-19 among the healthcare practitioners in Lusaka District, and to examine the interventions implemented to alleviate the psychosocial impacts of COVID-19 among healthcare practitioners in Lusaka District. To answer the research objectives, quantitative data was collected from the respondents in the selected hospitals in Lusaka district. A structured questionnaire was used to collect quantitative data. The data analysis in this study involved the analysis of primary data collected from the field and interpretations of the same data. Under this chapter data was analyzed, presented and interpreted in details with respect to the main specific objectives and research questions. In addition, the chapter first provides the respondents demographic variables, followed by the results obtained in the field presented with respect to the objective of the study.

4.1 Respondents Demographic Variables

This part presents the respondent's response rate, respondents' personal profile regarding sex, age, level of education, marital status, type of occupation, level of work experience, employment type, and work department.

4.1.1 Response Rate

The study gathered information from healthcare practitioners from the selected hospitals in Lusaka district. A total of 223 questionnaires were distributed and 207 were collected having been filled completely giving a response rate of (207) 92.8%. The results are tabulated in Table 4.1.

Table 4.1: Respondents Response Rate

Respondents' response rate	Frequency	Percentage
Negative response	16	08.2%
Positive response	207	92.8%
Total	223	100%

Source: Author's Survey data, 2023

Table 4.1 shows that the majority of the questionnaires distributed were collected and the positive response rate was 92.8%. According to Mugenda and Mugenda (2003), a response rate of 50% is adequate for data analysis and reporting while a rate of 60% and 70% or more is good and excellent, respectively. Thus, the response rate of 92.8% obtained in this study was considered as excellent and suitable for data analysis and reporting.

4.1.2 Gender of the Respondents

The sample population of this study constituted of both males and females. Female respondents constitute the biggest number of 112 (54.11%) than male who were 95 (45.89%) as shown in Figure 4.1.

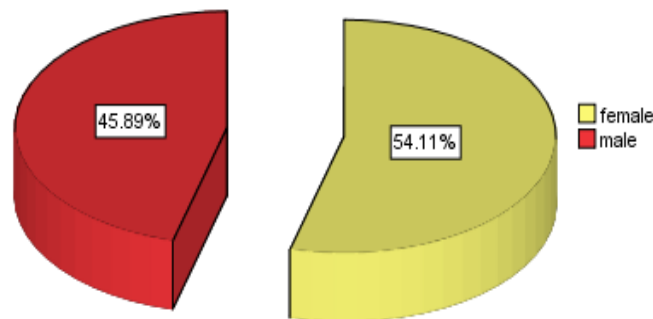


Figure 4.1: Pie chart showing respondent Gender.

Source: Author's Survey data, 2023

According to Figure 4.1, 54.11% of the respondents were female while 45.89% were male. These results indicate that both genders were represented in the sample population despite having more females than males.

4.1.3 Age of the Respondents

The respondents were asked to indicate their age which was later classified in four categories; 20-30 years, 31-40 years, 41-50 years and 51 years and above. The results are distributed in Table 4.2.

Table 4.2: Age of the respondents

Age group	Frequency	Percentage
18-30 years	19	9.2%
31-40 years	91	44.0%
41-50 years	68	32.9%
51 years and above	29	14.0%
Total	207	100%

Source: Author's Survey data, 2023

The results from Table 4.2 indicates that the biggest percentage of the respondents' age was between 31 and 40 years and this accounted for 43.96% of the total sample population. In addition, 32.85% of the respondents who participated in the present study were aged between 41 and 50 years while those who were aged above 50 years constituted of 14.01% of the subjects as shown in Table 4.2. Further, those who were aged between 20 and 30 years accounted for 9.18% of the interviewed population. These results show that the majority of the respondents in this study were old enough and thus knowledgeable on the subject matter.

4.1.4 Distribution of Respondents' Level of Education

The researcher was interested to know the education level of the participants as such the respondents were asked to indicate their level of education. The results of the level of education of the respondents are shown in Figure 4.2. The findings of the study indicate that most of the respondents' level of education was based on diploma education. According to the figure below, 51.69% of the total sample population of the respondents attained diploma education while those who attained medical doctorate education accounted for 20.29% of the respondents. In addition, those who attain medical degree accounted for 10.63%. Also, 9.66% of the respondents had attained master's degree while 3.86% had attained medical doctorate degree. Those who had attained certificate education accounted for 3.86% of the entire sample population. Since the majority of the respondents had diploma education, the results means that

most of the respondents were somehow well educated. However, this may not have affected their responses regarding the subject matter because most of them experienced the psychosocial impact resulting from COVID-19 and this has increased their knowledge regarding the topic at hand.

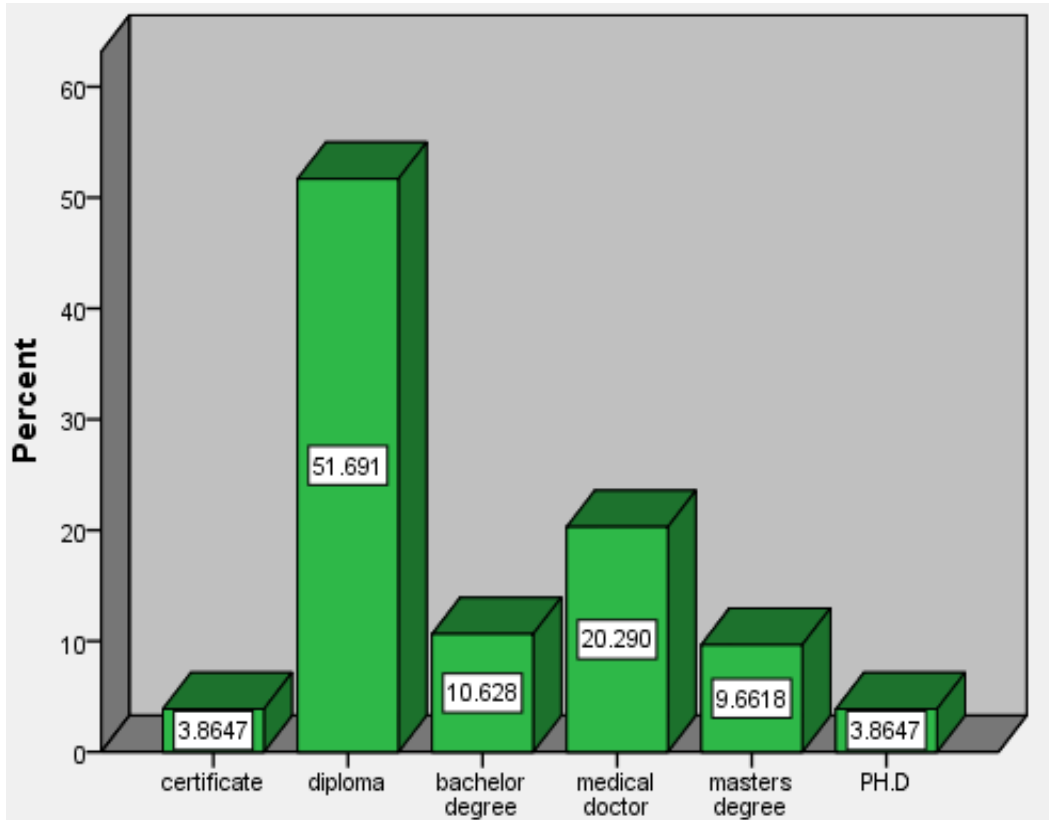


Figure 4.2: Respondents Level of Education

Source: Author's Survey data, 2023

4.1.5 Respondents Marital Status

The respondents also were requested to indicate their marital status and the results are shown in Figure 4.3.

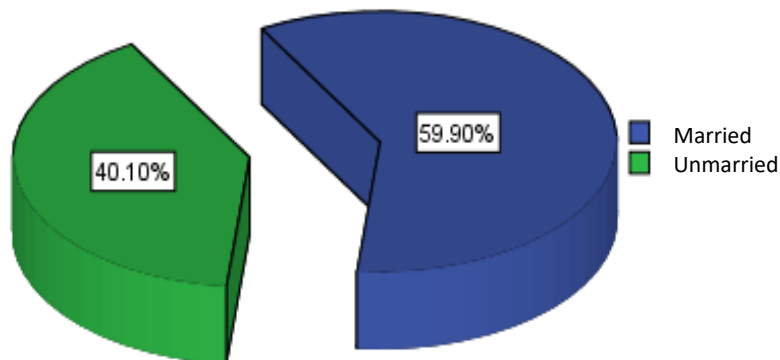


Figure 4.3: Respondents marital status

Source: Author’s Survey data, 2023

The results from Figure 4.3 shows that most of the respondents were married and this accounted for 59.9% of the total population interviewed in this study. In addition, 40.1% of the respondents were single. The unmarried ones consisted of the divorced, widowed and those who had never gotten married before.

4.1.6 Respondents Type of Occupation

The respondents were asked to state their occupation type and their responses are distributed in Table 4.3.

Table 4.3: Respondents by occupation

Occupation type	Frequency	Percent
Nurse	99	47.8%
Doctor	70	33.8%
Lab. Technician	16	7.7%
Pharmacist	12	5.8%
Others	10	4.8%
Total	207	100%

Source: Author’s Survey data, 2023

In this study, occupation was categorized into five groups from which the respondents were asked to choose from. Table 4.3 shows that most of the respondents were nurses, accounting for 47.8% of the participants. In addition, those who were doctors and laboratory technician constituted about 33.8% and 7.7% of the entire population, respectively. Additionally, 5.8% of the respondents were pharmacist as indicated in Table 4.3.

4.1.7 Respondent Profile by Level of Work Experience

The respondents were asked to state their level of work experience and their responses are tabulated in Figure 4.4.

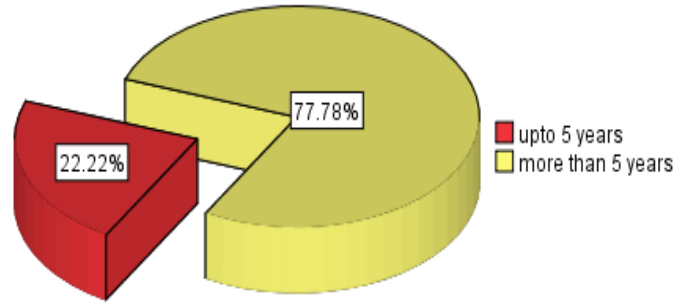


Figure 4.4: Work experiences of the respondents

Source: Author’s Survey data, 2023

The respondent consists of the healthcare practitioners with various levels of work experiences. The results indicate that about 77.78% of the respondents have been working for more than 5 years while those who had worked for less than five years constituted of 22.22% as shown in Figure 4.4. These results imply that most of the respondents were more experienced having been working for more than five years.

4.1.8 Employment Type

The researcher was interested to find out the type of employment of the respondents. As such the respondents were asked to state as to whether they were in full time or part time employment. Their responses are tabulated in Table 4.4.

Table 4.4: Employment type

Employment type	Frequency	Percentage
Full time	188	90.8%
Part-time	19	9.2%
Total	207	100%

Source: Author’s Survey data, 2023

The results from Table 4.4 reveals that most of the participants were full time employed (90.8%) while those who were on part-time constituted about 9.2% of the entire population.

4.1.9 Work Department

The researcher wanted to find out the department the respondents were working from. As such the respondents were asked to state the department they were working from and their responses are shown in Figure 4.5. The results reveals that most of the respondents were from medical and surgical units and this accounted for 34.3% of the study population. In addition, 32.4% of

the subjects were from critical care unit while 11.11% were from step down unit. Further, those from pediatrics and OBGYN were 10.1% and 7.3%, respectively. Furthermore, 5.8% of the study population were from none-patient care area as indicated in Figure 4.5.

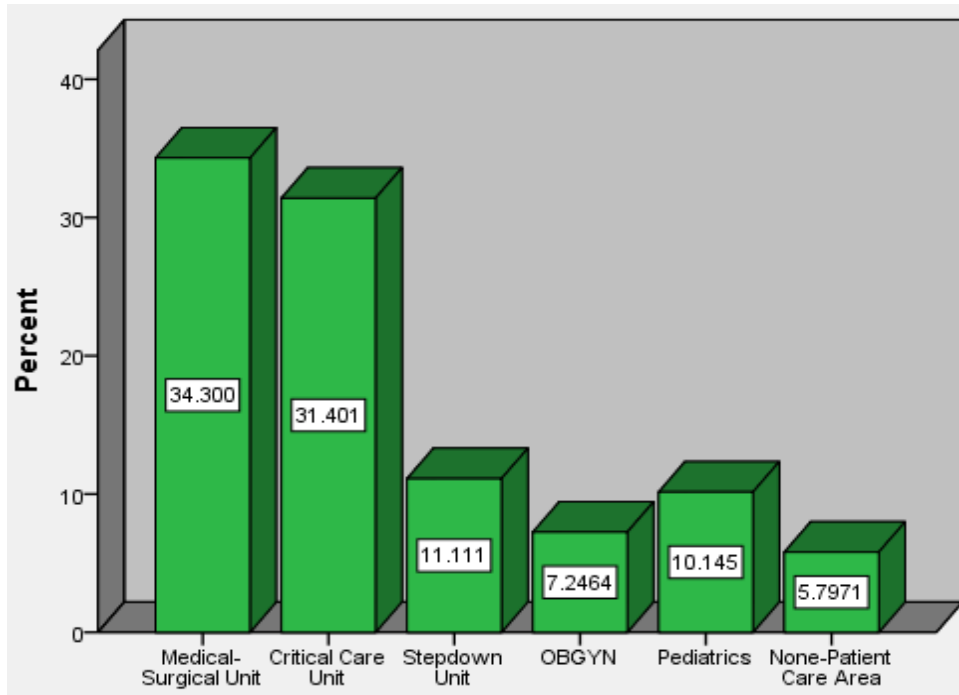


Figure 4.5 Work department

Source: Author's Survey data, 2023

4.2 Psychosocial Impact of COVID-19 on Healthcare Practitioners

The study was conducted to assess the psychosocial impacts of the COVID-19 among healthcare practitioners in the selected Hospitals in Lusaka district.

4.2.1 Concerned with COVID-19

The researcher wanted to find out if the respondents were concerned with COVID-19 or not. As such the respondents were asked to state whether they were concerned with COVID-19 or not. Their responses are shown in Figure 4.6.

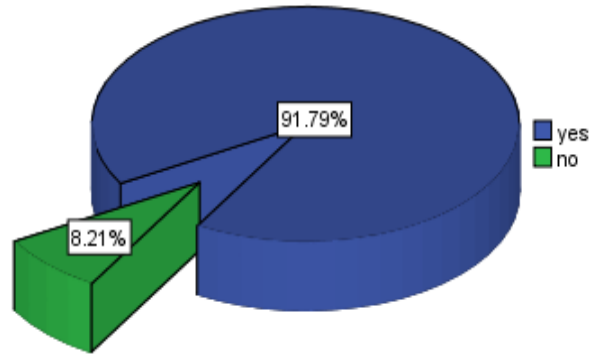


Figure 4.6: Concerned with COVID19 or not

Source: Author's Survey data, 2023

According to the figure above, the majority of the respondents were concerned with COVID-19, accounting for 91.79% of the total sample population. On the other hand, 8.21% of the respondents were not concerned with the pandemic. These results entail that most of the healthcare practitioners who participated in this study were concerned with the pandemic disease may be due to the fact that they were somehow directly involved. Those who were not concerned were probably not engaged directly with the patients of the pandemic.

4.2.2 The Role of the Respondents in Patient Care

The respondents were asked to state their role in patient care and their responses are shown in Figure 4.7.

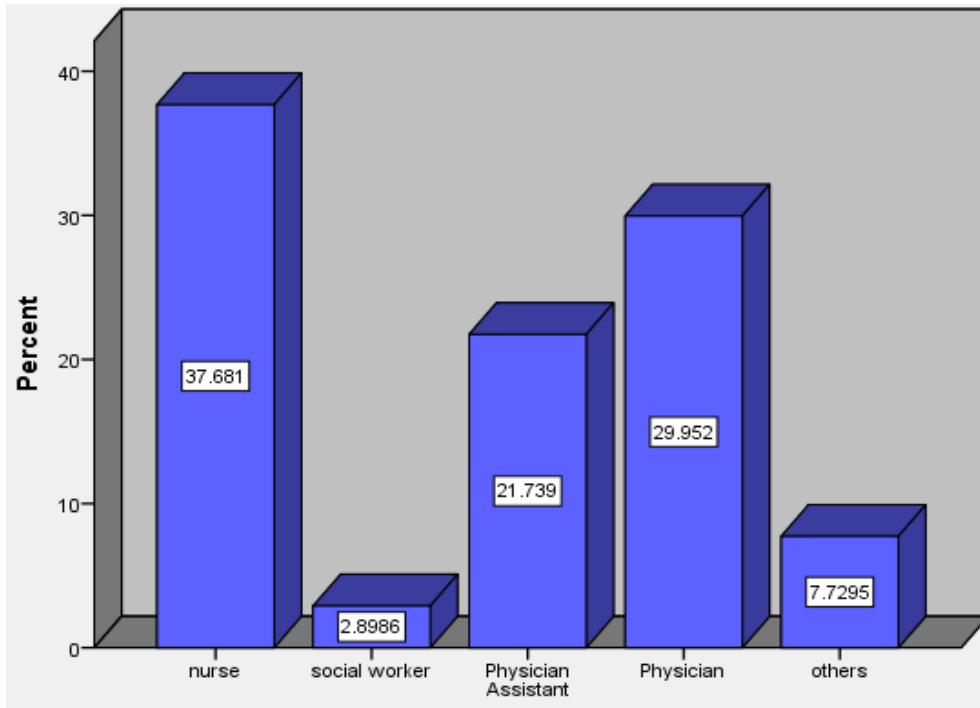


Figure 4.7: Role in patient care

Source: Author's Survey data, 2023

The results show that the respondents played different roles in patient care. Most of the respondents were nursing the patients of COVID-19 and this accounted for 37.68% of the total sample population. In addition, 29.95% of the respondents were physician during COVID-19 period while 21.74% were engaged as assistant physician. Also, 2.9% and 7.73% of the total population in this study were engaged as social workers and other responsibilities during the pandemic tenure. These results show that most of the respondents were engaged as doctors and nurses during the pandemic era.

4.2.3 COVID-19 Direct Care

The researcher wanted to find out whether the respondents were directly involved in treating or caring COVID-19 patients and their responses are tabulated in Table 4.5.

Table 4.5: COVID-19 direct care

COVID-19 direct care	Frequency	Percentage
Yes	133	64.3%
No	74	35.7%
Total	207	100%

Source: Author's Survey data, 2023

The results from Table 4.5 shows that most of the respondents were directly involved in taking care or treating the patients who suffered from COVID-19 pandemic in the selected hospitals in Lusaka district. Only about 35.7% of the respondents revealed that they were not directly involved in COVID-19 care as displayed in Table 4.5.

4.2.4 Duration of COVID-19 Direct Care

The respondents were asked to state the duration of time they were engaged in COVID-19 direct care and their responses are tabulated in Table 4.6.

Table 4.6: COVID-19 direct care duration

COVID-19 direct care duration	Frequency	Percentage
Less than one month	28	13.5%
2 – 3 months	22	10.6%
More than 3 months	83	40.1%
Not engaged in COVID-19 related work	74	35.7%
Total	207	100%

Source: Author’s Survey data, 2023

Regarding the duration of COVID-19 direct care, the respondents were involved in the pandemic work for different times. Most of the subject worked in COVID-19 direct care for more than three months and this constituted for 40.1% of the entire population. Additionally, 13.5% and 10.6% of the respondents were engaged in COVID-19 work related for a period of one month and 2-3 months, respectively. On the other hand, 35.7% of the respondents were not directly engaged in COVID-19 related work as indicated in Table 4.6.

4.2.5 Feelings of Health Workers Towards Impact of COVID-19

The respondents were asked to rate how often they felt that they were unable to control the important things in their life, confident about their ability to handle personal problems and feeling down or depressed or hopeless, due to COVID-19 pandemic. In addition, how often they felt that things were going their way, difficulties were piling up, they had little interest or pleasure in doing things, outbreak had a negative impact on their family, physical activities decreased, spiritual or religiously disrupted due to COVID-19 pandemic. Based on the Likert scale of 1= strongly disagree or never, 2 = disagree or almost never, 3 = not aware, 4 = agree,

5 = strongly agree, respondents were asked to indicate the extent to which they felt about the said statements and the results are shown in Table 4.7.

Table 4.7: Descriptive statistics for respondents’ thoughts and feelings during the pandemic

Statements	N	Mean	Std. Deviation
Feeling confident to handle personal problems	207	2.15	1.158
Feeling things going your way	207	1.72	1.027
Feeling difficulties were piling up	207	4.19	.984
Feeling down or depressed or hopeless	207	4.30	.723
Financially negatively impact	207	4.21	.982
Physical activities decrease	207	4.34	.883
COVID-19 had a negative impact on family	207	4.37	.849
Little interest or pleasure in doing things	207	4.19	.904
Feeling unable to control important things during COVID	207	4.07	1.205
Spiritual or religiously disrupted due to COVID-19	207	4.22	.950

Source: Author’s Survey data, 2023

The results in Table 4.7 revealed that during COVID-19, the respondents’ fairly often felt that they were unable to control the important things in their life having the mean score of 4.07. Also, during the pandemic era, the respondents were fairly often felt down or depressed or hopeless ($M = 4.30$) and that they felt difficulties were piling up ($M = 4.19$). In addition, the respondents were almost never felt confident to handle personal problems and never felt things were going in their way due to COVID-19 recording a mean score of 2.15 and 1.72, respectively. Further, the respondents fairly often felt to have little interest or pleasure in doing things ($M = 4.19$). Additionally, the respondents agreed that physical activities decreased significantly ($M = 4.34$) and spiritual or religiously disrupted ($M = 4.22$) due to COVID-19 pandemic. Also, it was found that the respondents agreed that COVID-19 outbreak had a negative impact on their families ($M = 4.37$). Furthermore, the respondents agreed that the pandemic had a negative impact on their finances ($M = 4.21$).

4.2.6 Respondents Fear of COVID-19

The respondents were asked to state whether they feared the pandemic and also to state the type of fear. Their responses are disclosed in Figure 4.8.

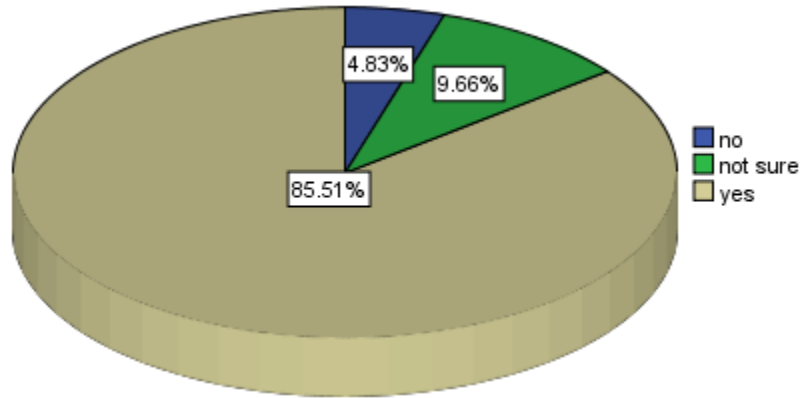


Figure 4.8: Respondent’s fear of COVID-19

Source: Author’s Survey data, 2023

The results of the study revealed that most of the participants reported fearing the disease and its consequences, accounting for 85.51% of the entire sample population. In addition, 4.83% of the respondents reported not fearing COVID-19 while 9.66% were not sure.

In addition, the majority of the respondents reported fearing death due to COVID-19, accounting for 67.15% of the entire study population. Those who reported fearing the disease and its consequences accounted for 13.04% of the respondents who participated in this study. Also, 19.81% reported fearing the isolation due to the pandemic as indicated in Figure 4.9.

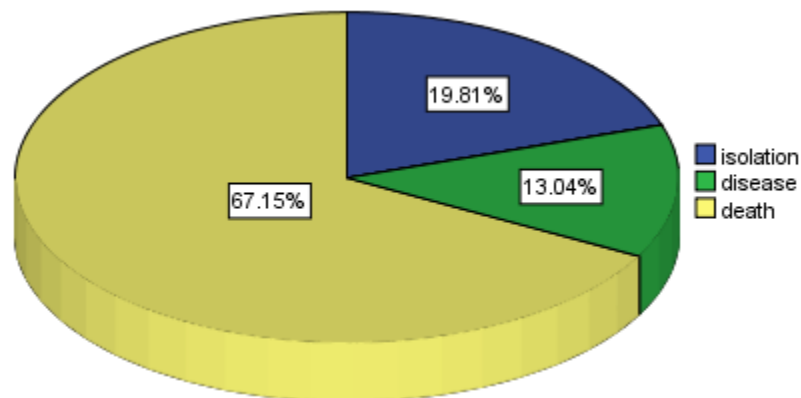


Figure 4.9: Type of fear

Source: Author’s Survey data, 2023

4.2.6 The Respondents’ Feelings of Depression

The researcher wanted to find out whether the respondents had felt depressed due to COVID-19 and their responses are shown in Figure 4.10.

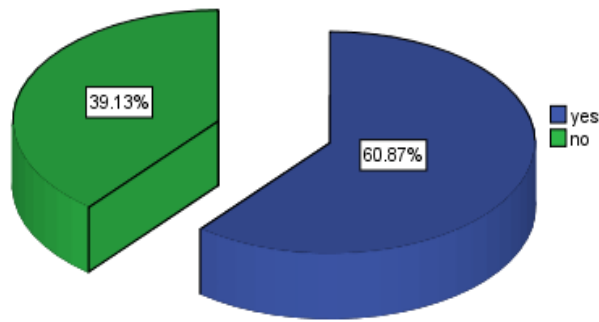


Figure 4.10: Respondents' feeling of depression

Source: Author's Survey data, 2023

According to the figure above, most of the respondents reported to have felt depressed due to COVID-19 and this accounted for 60.87% of the entire study population. Only 39.13% of the study population were not depressed during pandemic era as indicated in Figure 4.10.

4.2.7 The Respondents' Feelings of Stress

The respondents were asked to state whether they were stressed during COVID-19 period and their responses are indicated in Figure 4.11.

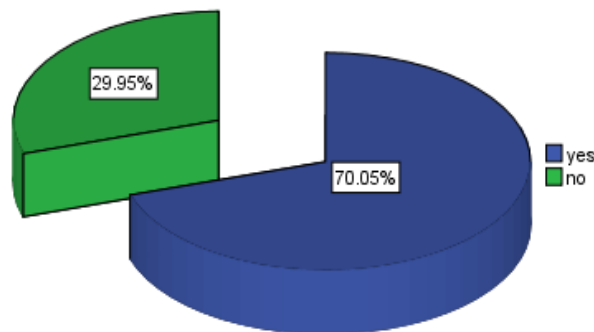


Figure 4.11: Respondents' feeling of stress.

Source: Author's Survey data, 2023

Figure 4.11 shows percentages of healthcare practitioners reporting some kind of job-related stress experienced during the COVID-19 pandemic. The vast majority of participants reported more stress at work, accounting for 70.05% of the entire study population. Those who reported not feeling stressed accounted for 29.95% of the study population.

4.2.8 The Respondents' Feelings of Having Symptoms of Anxiety

The researcher was interested in finding out if the respondents had symptoms of anxiety during the pandemic era. As such, the participants were asked to state whether they had anxiety during COVID-19 period and their responses are exposed in Figure 4.12.

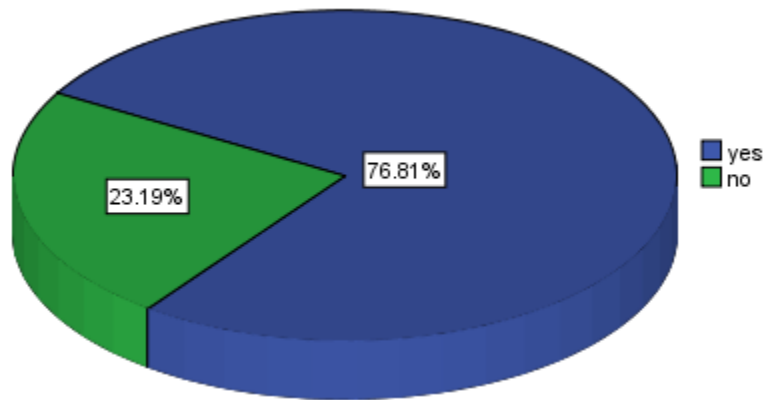


Figure 4.12: Respondents feeling of having symptoms of anxiety.

Source: Author’s Survey data, 2023

The findings from Figure 4.12 shows that most of the participants reported having anxiety during COVID-19 period and this accounted for 76.81% of the total study population. In addition, 23.19% of the study population reported not having symptoms of anxiety during the pandemic era as indicated in Figure 4.12.

4.2.9 Quality of Life

The respondents were asked to state their overall quality of life prior to COVID-19 outbreak and their responses are tabulated in Table 4.8.

Table 4.8: Quality of life prior to COVID-19 outbreak.

Quality of life	Frequency	Percentage
Excellent	123	59.4%
Good	41	19.8%
Satisfactory	29	14.0%
Fair	9	4.3%
Poor	5	2.4%
Total	207	100%

Source: Author’s Survey data, 2023

The findings of the study regarding the quality of life prior to COVID-19 outbreak was excellent as reported by the majority of the respondents (59.4%). Also, 19.8% of the respondents reported that the quality of life prior to the pandemic outbreak was good while

14.0% reported it to be satisfactory as indicated in Table 4.8. Further, 4.3% and 2.4% reported that the quality of life prior to COVID-19 outbreak was fair and poor, respectively.

Regarding the overall current quality of life, the majority of the respondents (63.3%) reported that the overall current quality of life was satisfactory while 13.04% reported that the quality of life currently was good. In addition, 10.6% reported that the current quality of life was fair while 7.25% reported that it was excellent. Furthermore, 5.8% of the study population reported that the current quality of life was poor as indicated in Figure 4.13.

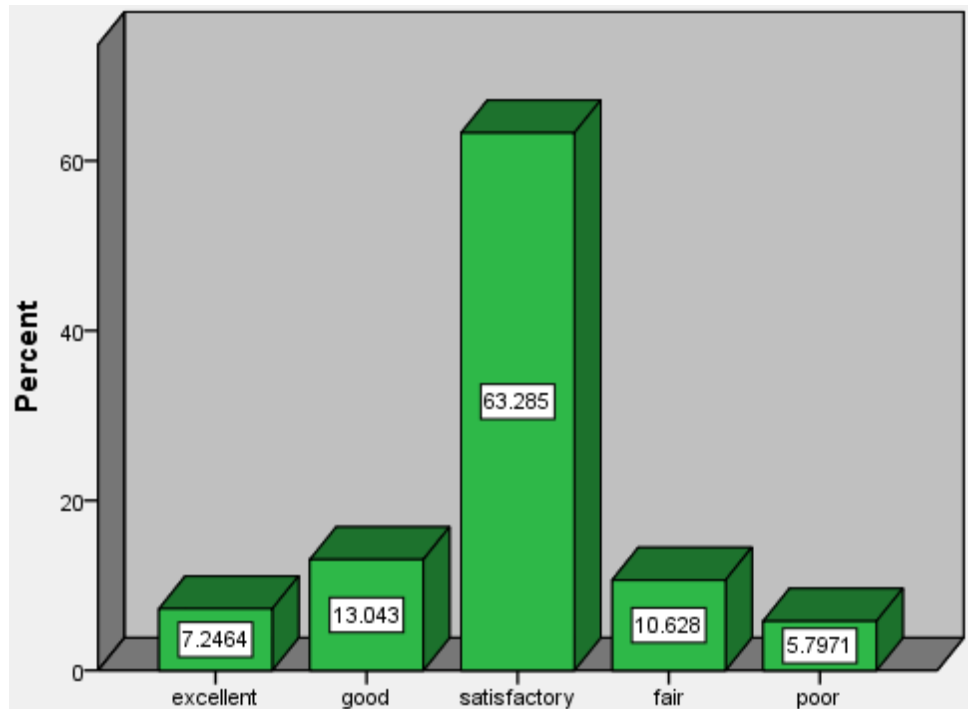


Figure 4.13: Current quality of life

Source: Author's Survey data, 2023

4.2.10 Quality of Sleep During COVID-19

The researcher wanted to find out how the quality of sleep was during COVID-19 among the respondents and their responses are tabulated in Table 4.9.

According to Table 4.9, the results show that most of the participants reported that the quality of sleep during COVID-19 outbreak was fair and this accounted for 58.5% while those 26.6% stated that the quality of sleep was poor. Also, 11.1% of the study population reported that the quality of sleep during the pandemic era was satisfactory. Further, those who stated that the quality of sleep was good and excellent were 2.4% and 1.4% of the entire total sample population of this study respectively. Furthermore, the majority of the respondents reported not being able to sleep due to being worried about contracting the pandemic.

Table 4.9: Quality of sleep during COVID-19

Quality of sleep	Frequency	Percentage
Excellent	3	1.4%
Good	5	2.4%
Satisfactory	23	11.1%
Fair	121	58.5%
Poor	55	26.6%
Total	207	100%

Source: Author's Survey data, 2023

In addition, those who reported not sure of getting the virus were 13.0% of the study population while 6.8% reported not worried of getting the pandemic as indicated in Table 4.10.

Table 4.10: Distribution of responses to fear of COVID-19

Statements regarding the fear of COVID-19	Frequency	Percentage
Worried of getting COVID-19		
No	14	6.8%
Not sure	27	13.0%
Yes	166	80.2%
Fear of infecting loved ones		
No	19	9.2%
Not sure	32	15.5%
Yes	156	75.4%

Source: Author's Survey data, 2023

Furthermore, the results of the study show that 75.4% of the respondents reported fearing infecting their loved ones at home when contracting the pandemic. Those who reported not

sure about the subject matter accounted for 15.5% while 9.2% were not fearing infecting their loved ones as indicated in Table 4.10.

4.3 Magnitude of the Psychosocial Impacts of COVID-19

The researcher wanted to find out the magnitude of the psychosocial impacts of COVID-19 among healthcare practitioners. As such, the respondents were asked to state the magnitude of the psychosocial impacts of COVID-19 on them and their responses are tabulated in Table 4.11.

According to Table 4.11, 33.3% of the respondents had extreme severe depression while 33.3% had severe depression. Also, 12.6% and 5.3% of the respondents who participated in this study reported to have moderate and mild depression during COVID-19 era while 15.5% did not experience depression. With respect to the severity of stress, the study found that 40.6% of the respondents reported feeling severe stress, 23.2% reported moderate stress and 9.2% reported mild stress. Also, 5.8% of the total population in this study reported extreme severe stress. On the other hand, only 21.2% of the entire study population reported to have not experienced stress during COVID-19 pandemic.

Table 4.11: Psychosocial characteristics of the participants

Variables	Categories	Frequency	Percentage
Severity of depression	None	32	15.5%
	Mild	11	5.3%
	Moderate	26	12.6%
	Severe	69	33.3%
	Extreme severe	69	33.3%
Severity of stress	None	44	21.2%
	Mild	19	9.2%
	Moderate	48	23.2%
	Severe	84	40.6%
	Extreme severe	12	5.8%
Severity of anxiety	None	21	10.1%
	Mild	26	12.6%
	Moderate	54	26.1%
	Severe	96	46.4%

	Extreme severe	10	4.8%
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Source: Author’s Survey data, 2023

Regarding the severity of anxiety, the majority of the study population reported to have severe symptoms of anxiety, and this accounted for 46.4% of the respondents. It was also noted that 26.1% of the participants reported having moderate symptoms of anxiety while 12.6% had mild symptoms of anxiety as shown in Table 4.11. Further, 4.8% of the respondents had extreme severe symptoms of anxiety while 10.1% had no symptoms of anxiety.

4.4 Interventions Implemented to Alleviate the Psychosocial Impacts of COVID-19

The third objective of the study sought to examine the interventions implemented to alleviate the psychosocial impacts of COVID-19 among healthcare practitioners. As such, the participants were asked to state various measures they used to help cope with the threat of the COVID-19 pandemic and their responses are distributed in Table 4.12.

Table 4.12: Precautionary measures and coping strategies used by the participants.

Precautionary measures	N	Mean	St. deviation
Hand washing/sanitizers/face mask and protective clothing	207	4.35	.779
Leisure activities in my free time	207	4.28	.999
Pray more often than I used to	207	4.35	.911
Avoid media news about COVID-19	207	4.10	1.099
Positive attitudes from my colleagues	207	4.14	1.031
Received family support	207	4.40	.864
Joking and chatting with friends	207	4.05	1.154
Seek help from a psychologist	207	4.05	.981
Talk to religious leaders more often than I used to	207	3.55	1.122
Eat healthy diet to boost immunity	207	4.14	1.050
Exercise regularly	207	4.03	.924
Avoid social gatherings	207	4.17	.741
Observing social distance protocols	207	4.03	1.056
Taking Zinc and Vitamin C supplements to boost immunity	207	4.28	1.194

Source: Author’s Survey data, 2023

The results from Table 4.12 shows participants' responses regarding interventions that helped to reduce the psychosocial impacts of COVID-19 on them. The majority of the respondents agreed that positive attitudes from colleagues, recording a mean score of 4.05. The results also reveal that the respondents agreed that following strict protective measures such as hand washing and wearing of face mask (M = 4.35), observing social distancing protocols (M = 4.03) and avoiding social gatherings (M = 4.17) helped them to alleviate the psychosocial impact of the pandemic. Also, it was noted that exercising regularly (M = 4.03), taking zinc and vitamin C supplements (M = 4.28), watching movies and reading for leisure (M = 4.28) were commonly reported ways of coping with the threat of the COVID-19 pandemic having the mean score of more than 4.

In addition, other coping strategies which were adopted by the respondents includes praying more often than they used to (M = 4.35), avoiding media news about COVID-19 (M = 4.10), seeking help from a psychologist (M = 4.05) and eating healthy diet to boost immunity (M = 4.14). Furthermore, the participants agreed that they received support from both the family and the community (M = 4.40) and this helped them to reduce the psychosocial impact of COVID-19. However, the respondents were not sure on talking to their religious leaders more often than previously (M = 3.55) as a strategy for alleviating the psychosocial impacts resulting from COVID-19. About two-thirds either disagreed or strongly disagreed to seeking help from a psychologist and avoiding news about COVID-19 and related deaths as coping strategies as shown in Table 4.13.

Table 4.13: Precautionary measures associated with improved COVID-19 impact

Precautionary measures	Chi-square value	p-value
Hand-washing/sanitizers/face mask and protective clothing	92.729	.000
Observing social distance protocols	10.210	.001
Avoid social gatherings	13.789	.000
Exercise regularly	16.060	.000
Eat healthy diet to boost immunity	11.435	.001
Taking Zinc and Vitamin C supplements to boost immunity	10.603	.001
Leisure activities in my free time	110.768	.000
Talk to religious leaders more often than I used to	0.091	.762
Pray more often than I used to	13.725	.000
Seek help from a psychologist	30.530	.000

Avoid media news about COVID-19	8.255	.004
Received family support	23.625	.000
Positive attitudes form my colleagues	11.040	.001
Joking and chatting with friends	15.067	.000

Source: Author's Survey data, 2023

The results from bivariate analysis showed that hand-washing/sanitizers/face mask and protective clothing, observing social distance protocols, avoid social gatherings, exercise regularly, eat healthy diet to boost immunity, taking Zinc and Vitamin C supplements to boost immunity, leisure activities in my free time, pray more often than I used to, seek help from a psychologist, avoid media news about COVID-19, received family support, positive attitudes form my colleagues, and joking and chatting with friends improved the psychosocial impact of COVID-19 among health workers. All the precautionary measures except, talk to religious leaders more often than I used to ($p = 0.762$), were significantly help the health workers to mitigate the psychosocial impact from COVID-19 as indicated in Table 4.13.

Further, all significant precautionary measures were entered into a multivariate logistic regression to assess those which remained significant. The results are tabulated in Table 4.14.

Table 4.14: Multivariate logistic regression of precautionary measures associated with improved psychosocial impact of COVID-19 among health workers

Precautionary measures	B	S.E.	Wald	df	Sig.	Exp(B)
handwashing	2.304	.861	7.157	1	.007	10.010
observing social distance protocols	.454	.719	.400	1	.527	1.575
avoid social gatherings	.277	.710	.152	1	.696	1.319
exercise regularly	2.103	.733	8.236	1	.004	8.194
eat healthy diet to boost immunity	.228	.718	.101	1	.751	1.257
taking Zinc and Vitamin C supplements to boost immunity	.763	.708	1.163	1	.281	2.145
leisure activities in my free time	3.039	.758	16.062	1	.000	20.883
pray more often than I used to	1.173	.736	2.542	1	.111	3.232
seek help from a psychologist	1.787	.850	4.413	1	.036	5.970
avoid media news about COVID-19	.580	.694	.698	1	.403	1.785
received family support	.893	.780	1.310	1	.252	2.443
Positive attitudes from my colleagues	1.504	.697	4.663	1	.031	4.502
joking and chatting with my friends	1.616	.715	5.107	1	.024	5.033
Constant	-9.744	1.949	24.999	1	.000	.000

Source: Author's Survey data, 2023

The results from a multiple logistic regression analysis indicated that handwashing ($p = 0.007$), exercise regularly ($p = 0.004$), leisure activities in my free time ($p = 0.000$) and seek help from a psychologist ($p = 0.036$) were the only variables which remained significantly associated with improved psychosocial impact of COVID-19 among health workers as presented in Table 4.14. In addition, the odds of improved psychosocial impact of COVID-19 among health workers who preferred hand wash as the precautionary measure were 10.010 times higher than those who did not. Also, those who had leisure activities in their free time were more likely to improve the psychosocial impacts of COVID-19 than those who did not [odds ratio = 20.883].

4.5 Chapter Summary

This chapter provided the findings of the study on quantitative data. Figures and tables were used to present the frequency and percentages of findings so that they can be understood by all the stakeholders. This chapter focused on the presentation of the findings from the study on the psychosocial impacts of COVID-19 among healthcare practitioners in selected hospitals in Lusaka District. The next chapter discusses the findings of the study with respect to the literature that was reviewed.

CHAPTER FIVE: Discussions of the Findings

5.0 Overview

The previous chapter provided the findings of the study on the psychosocial impacts of COVID-19 among healthcare practitioners in the selected Hospitals in Lusaka District. The study was aimed at assessing the psychosocial impacts of COVID-19 among healthcare practitioners in selected hospitals in Lusaka District. This chapter discusses the key research findings presented in the above-mentioned chapter. The discussion section will bring together the main research findings and the key elements of the literature review. The findings of this study will be compared with those found in other studies reviewed. The discussion is done with respect to the objective of the study which were: to determine the psychosocial impacts of COVID-19 among healthcare practitioners in Lusaka District; to establish the magnitude of the psychosocial impacts of COVID-19 among the healthcare practitioners in Lusaka District, and to examine the interventions implemented to alleviate the psychosocial impacts of COVID-19 among healthcare practitioners in Lusaka District.

5.1 Psychosocial Impact of COVID-19 on Healthcare Practitioners

COVID-19 has affected many people and countries either physically or psychologically all over the world. Thus, in the context of the COVID-19 outbreak, there is a need to document its effect on physical and mental health. COVID-19 pandemic came out as the most devastating and challenging crisis for public health in the contemporary world. Apart from the soaring mortality rate, nations across the globe have also been suffering from a spike of the excruciating psychological outcomes such as anxiety and depression among people of all ages.

The results of the present study showed that self-reported psychosocial problems were prevalent in healthcare practitioners during the COVID-19 pandemic. Moreover, different kinds of healthcare practitioners exhibited a distinct prevalence of anxiety, depression, and stress. The study showed that many of the respondents were concerned with COVID-19, accounting for 91.8% of the entire study population. The results of the study showed that the respondents played different roles in patient care. It was also noted that most of the subjects were nursing the patients of COVID-19 while the second most group of the subjects were physician during COVID-19 period. Regarding whether the respondents were directly involved in treating or caring for the patients,

our study found that more than half of the respondents were directly involved in either treating or taking care of the patients.

The results of the study revealed that the respondents often felt unable to control the important things in their life. It was also reported that during the pandemic era, the respondents were depressed and felt difficulties were piling up. In this study, the participants agreed that they had little interest or pleasure in doing things, physical activities decreased significantly and spiritual or religiously disrupted and due to COVID-19 pandemic. Also, it was found that the respondents agreed that COVID-19 outbreak had a negative impact on their families and that they were financially affected due to the pandemic. Additionally, our study showed that most of the subjects reported fearing the disease and its consequence. This indicates that the higher the health workers' fear of COVID-19 then the higher their workplace phobia and specifically workplace panic anxiety and workplace avoidance behavior may also be there. If these persist without efficient coping or supportive system or environment, may eventually affect their performance at work. Recent studies have shown that fear of COVID-19 has impacted negatively on individuals' occupational lives (Malik et al, 2021; Rodríguez and Sánchez, 2020). During the COVID-19 pandemic, the mental health of the professional healthcare workforce has been noticeably affected.

Additionally, this study analyzed the prevalence of psychosocial impacts of COVID-19 in different healthcare practitioners, including nurses, physicians, medical residents, technicians, and public health professionals among others. The results showed that approximately more than two-thirds of the respondents reported symptoms of anxiety, depression, and stress. Health workers especially during that period of the pandemic were more susceptible to mental problems which could have been attributed to higher workload and greater risk of direct exposure to patients with COVID-19. Moreover, owing to the contagious nature of COVID-19, as a preventive measure, healthcare practitioners may be separated from their family members to reduce the risk of transmission, and research has shown that worrying about family members may be one of the main sources of stress in these workers, indicating the critical role of community support for health workers' mental health.

Our study revealed that a considerable proportion of participants had clinically significant psychological problems, in terms of stress (70.1%), anxiety (76.8%) and depressive symptoms (60.9%). It is likely that most of the healthcare practitioners in this study developed stress, anxiety,

and depression symptoms as a direct response to the COVID-19 pandemic, since none had pre-existing psychological problems. This suggests that the COVID-19 pandemic might have significantly contributed to the development of adverse psychopathological outcomes in the population addressed here. The prevalence of anxiety, depression and stress in this study was higher than studies conducted which stood at 46.04%, 44.37% and 28.75%, respectively (Shaukat, Ali and Razzak, 2020; Khanal et al, 2020; Cabarkapa et al, 2020). Also, Dawood, Tomita and Ramlall (2022) found that the numbers of participants with depression, anxiety and stress were 51.5%, 47.2% and 44.3% respectively, with 16.2%, 21.3% and 16.2% in the combined severe/extremely severe range, respectively. The possible reason for this difference might be due to the difference in socioeconomic, cultural, and environmental factors such as attitudes, lack of adequate equipment like personal protective equipment and resources contribute to coping with the psychological crisis of the pandemic. In addition, the difference may be attributed to the implementation of psychological protective measures, data collection techniques, and sample size. The higher prevalence of anxiety, depression, and stress among the healthcare practitioners in this study may be explained by the pervading climate of uncertainty generated with the advancing pandemic, limited signs of a workable vaccine, increased workload, lack of social support, and an intense fear of family transmission.

The high prevalence of psychosocial impacts of COVID-19 among the respondents found in this study is consistent with recent findings from other studies (Varas et al, 2022; Han, Jang and Ko, 2022; Mushir, 2021). According to Batra et al (2022), early 55% of parental Coronavirus anxiety was explained by the generalized anxiety, separation anxiety, child's vulnerability to infection, and school type of the child. Similarly, 52% of parental Coronavirus obsession was explained by the generalized anxiety, separation anxiety, child's vulnerability to infection, and social phobia of the children. In addition, Schrepft et al (2022) noted that anxiety and depression were highest at the start of the pandemic wave in February 2021, and declined from February to June with the relaxation of measures. In addition, our results were like those obtained by Que et al (2020) where the prevalence of the overall psychological problems in physicians, medical residents, nurses, technicians, and public health professionals was 60.35%, 50.82%, 62.02%, 57.54% and 62.40%, respectively. Also, other studies including systematic reviews have reported up to 46%, 71%, 50.4% and 39% prevalence of anxiety, stress, depression, and insomnia among health workers in relation to the COVID-19 pandemic and with a preponderance in females (Lai et al, 2019; Wilson

et al, 2020; Muller et al, 2020). These psychological effects must be identified and addressed as they have the potential of impairing cognitive functioning and possibly work performance.

The prevalence of self-reported symptoms of anxiety, depression and insomnia in previous surveys was 44.7%, 50.7% and 36.1% and 44.6%, 50.4% and 34.0% (Syed and Nausheen, 2022; Olashore et al, 2021). Another study confirmed the severe mental health conditions in healthcare workers and indicated that medical health workers reported more symptoms compared with non-medical health workers (Muñoz-Muñoz et al, 2022; Mudenda et al, 2022). This may be related to the higher risk of infection on account of being exposed to patients with COVID-19 and tedious work involved in caring for them and reminds us of the importance of providing psychological support to healthcare workers during a pandemic. Mudenda et al (2022) found that 76.2% of the students experienced the anxiety of which the majority (34.4%) had experienced mild anxiety.

In addition, the present study found that most of the respondents' quality of life prior to COVID-19 outbreak was excellent. However, during the pandemic era, the quality of life was reported to be satisfactory. This entails that the quality of life for healthcare practitioners was affected by the outbreak of COVID-19. This can be noted from how the quality of sleep among the healthcare practitioners was affected due to the pandemic. The study found that more than half of the participants reported that the quality of sleep during COVID-19 outbreak was fair. The results show that most of the healthcare practitioners were not able to sleep because they were worried about not only contracting the pandemic but also fearing infecting their loved ones at home, especially the elderly.

5.2 Magnitude of the Psychosocial Impacts of COVID-19

Healthcare practitioners caring for COVID-19 victims have been reported to experience anxiety symptoms because of their apprehension of transmission of the disease to their families and seeing their colleagues getting infected or dying. In line with this, stress serves as a pathway to anxiety, with nervousness as a chronic stressor and responses to stress. A person with the ability to effectively manage stress is unlikely to feel anxiety. Olashore et al (2021) states that many who lack appropriate management skills are subjected to a high degree of anxiety. It is highlighted that health care professionals were immensely impacted by anxiety, this is especially true since the coronavirus pandemic is a newly found virus, which the world has not experienced before; thus,

health care workers are forced to care for the sick with minimal knowledge about the disease itself, and also the possibility of infection (Mudenda et al, 2022; Malik et al, 2021; Varas et al, 2022; Han, Jang and Ko, 2022).

The results of the study revealed that there were differences between the different severity levels of fear of COVID-19 on workplace panic anxiety and avoidance behavior. The study found that participants reported that the level of stress was divided into mild (9.2%), moderate (23.2%), severe (40.6%) and extreme severe (5.8%); only 21.2% reported no stress. The prevalence of neither, mild, moderate, severe and extreme severe levels of depression was 15.5%, 5.3%, 12.6%, 33.3% and 33.3%, respectively. In addition, the study found that the severity of anxiety divided into none, mild, moderate, severe, and extreme severe stood at 10.1%, 12.6%, 26.1%, 46.4% and 4.8%, respectively.

When we compared the severity of the psychological symptoms of our study with the results of other studies, the prevalence of severe to very severe depression (19.2%), severe to very severe anxiety (26.6%), and severe to very severe stress (18.2%) in our study was similar to their findings. The results of two cohort studies in the Asia–Pacific region that used DASS-21 as a screening tool for the psychological symptoms associated with the COVID-19 epidemic are like our report (Malik et al, 2021; Varas et al, 2022). A nationwide cross-sectional experiment between Dutch intensive care nurses revealed that the first COVID-19 peak had a high influence on the mental health of intensive care nurses, enhancing the risk for dropout and imperiling the continuity of care. In this study, the prevalence rates of symptoms of depression, post-traumatic stress disorder, anxiety, and need for recovery were documented by 18.6%, 22.2%, 27.0%, and 41.7% of the participants, respectively.

This study observed that, working in the hospital, fearing contaminating relatives and experiencing inadequate numbers of coworkers associated with higher mental symptoms, while having been on vacation was associated with lowered depression signs and need for recovery (Yarong, Rosenheck and Hongbo, 2020). Another study examined stress, anxiety, and depression among healthcare workers caring for COVID-19 patients in Sarawak General Hospital (SGH), Malaysia. This cross-sectional observational study revealed that healthcare workers had mild anxiety, with the majority experiencing mild stress (57.1%), and almost half of the respondents experiencing mild depression (41%) (Kiat et al, 2021). Similarly, Syed and Nausheen (2022) assessed the anxiety and depression

symptoms in healthcare professionals in Pakistan as a result of the coronavirus pandemic and the results showed that most of the participants (n = 262; 65.5 %) experienced moderate levels of fear and 16.5% (n = 66) experienced a high level of fear. Moreover, 19.5% feared death and 56.5% reported social media to be responsible for increasing their fears.

Another study by Crowe et al (2021) investigated the mental health of Critical Care Registered Nurses supplying direct patient care during the early peak of the COVID-19 pandemic in Canada. In the experiment, the participants reported mild to severe depression (57%), stress (54%), anxiety (67%), as well as significant symptoms of post-traumatic stress disorder (38%). Indeed, critical care nurses revealed psychological disorders associated with supplying care to COVID-19 patients during the initial surges of the pandemic. Dawood, Tomita and Ramlall (2022) showed that numbers of participants with depression, anxiety and stress were 121 (51.5%), 111 (47.2%) and 104 (44.3%) respectively, with 38 (16.2%), 50 (21.3%) and 38 (16.2%) in the combined severe/extremely severe range, respectively. High levels of depression, anxiety, stress and traumatic stress, combined with poor perceptions of employer support, highlight the need to identify and address the psychosocial support needs and expectations of healthcare workers for the duration of the pandemic, as well as for the mental health sequelae post pandemic. Also, Kolivand et al (2023) found that the overall incidence of depression, anxiety and stress among health care workers during the COVID-19 pandemic was 44.25%, 50.62%, and 43.76%, respectively. Participants with severe to very severe depression, anxiety and stress accounted for 19.2%, 26.6%, and 18.2% of the sample, respectively.

Yarong, Rosenheck and Hongbo (2020) examined the severity of stress and possible correlates between the health care professionals searching online mental health care during the COVID- 19 outbreak. The sample overall indicated moderate levels of stress, which 24% suffering from anxiety and 38% recognized as depressed. Moreover, the staffers at intensive care units or in departments of respiratory medicine exhibited remarkably more elevated stress than workers in other units. In addition, our results were also similar to those found by Syed and Nausheen (2022) who noted that most of the participants (n = 262; 65.5 %) experienced moderate levels of fear and 16.5% (n = 66) experienced a high level of fear. Moreover, 19.5% feared death and 56.5% reported social media to be responsible for increasing their fears. On the depression PHQ-9 and anxiety GAD-7 scales, 21.8% (n = 87) reported moderate to severe depression and anxiety symptoms.

Also, Mudenda et al (2022) found that 34.4% experienced mild anxiety, 24.9% experienced moderate anxiety while 16.9% experienced severe anxiety about COVID-19.

5.3 Interventions Implemented to Alleviate the Psychosocial Impacts of COVID-19

People in the community faced several challenges during the pandemic's phenomenon. The impacts of these pandemics are often severe, which may negatively affect a given population's mental health. The depression and anxiety related to pandemics also influenced the behavior of people in the community including healthcare practitioners.

One of the objectives of the present study was to ascertain the interventions implemented by healthcare practitioners in the selected hospitals in Lusaka in alleviating the psychosocial impacts of COVID-19 they faced during the pandemic era. Over this time, a lot of interventions were put in place that may have mitigated whatever initial psychological toll health workers may have had. Some of the interventions reported by the respondents in the present study included hand washing or sanitizing and face masking. Also, the results of the study revealed that the respondents agreed that strict protective measures such as observing social distancing protocols and avoiding social gatherings helped them to alleviate the psychosocial impact of the pandemic. Also, it was noted that exercising regularly, taking zinc and vitamin C supplements, watching movies, and reading for leisure were commonly reported ways of coping with the threat of the COVID-19 pandemic. In addition, many of the respondents agreed that positive attitudes from colleagues helped them to alleviate the psychosocial impact of COVID-19.

Praying more often because of the COVID-19 pandemic is a form of religious coping strategy for the distress it poses. The present study found that praying more often than they used to, avoiding media news about COVID-19, seeking help from a psychologist, and eating healthy diet to boost immunity were some of the coping strategies which were adopted by the respondents in order to alleviate psychosocial impact of COVID-19. Furthermore, the present study noted that the support received by the healthcare practitioners from both the family and the community helped them to reduce the psychosocial impact of COVID-19.

In agreement with our findings, previous studies including those in Ghana and the West African sub-region have noted that religion, through faith and prayer, serves as a foundation for resilience and a resource to mitigate stressors in health workers and helps them to manage the emotional

hazards of their duties (Bakibinga, Vinje and Mittelmark, 2014; Munawar and Choudhry, 2020; Lartey et al, 2020). It is useful for health workers to talk to confidants in distress situations such as COVID-19. In line with the results of the present study, Cai et al (2019) also noted that adherence to social distancing measures, movement restrictions and hand washing protocols were useful coping strategies.

In addition, Shaukat, Ali and Razzak (2020) reported that factors such as improper use of personal protective equipment (PPE), infected family members and inadequate facilities for hand washing were noted to affect adversely health workers' mental health, a result which is contrary to the findings of the present study. In agreeing with the findings of the present study, other studies revealed that provision of adequate information on COVID-19 transmission, availability and trained use of PPEs, practicing response roles, implementing infection prevention and control (IPC) measures and movement restrictions, the safety of family members and positive attitudes of work colleagues among others helped to reduce COVID-19-related stress among health workers and enabled better coping (Cai et al, 2020; Lartey et al, 2020; Benson et al, 2020).

The health workers are at the frontline of dealing with unprecedented traumatic issues resulting from an overwhelming load of cases, exceptionally long work hours as a result of limited resources and an uncertain primary facility. As such precautionary measures to mitigate these challenges are crucial. The present study showed that hand-washing/sanitizers/face mask and protective clothing, observing social distance protocols, avoid social gatherings, exercise regularly, eat healthy diet to boost immunity, taking Zinc and Vitamin C supplements to boost immunity, leisure activities in my free time, pray more often than I used to, seek help from a psychologist, avoid media news about COVID-19, received family support, positive attitudes from my colleagues, and joking and chatting with friends improved the psychosocial impact of COVID-19 among health workers in bivariate analysis. All the precautionary measures except, talk to religious leaders more often than I used to ($p = 0.762$), significantly helped the health workers to mitigate the psychosocial impact from COVID-19 in a bivariate analysis. However, in a multiple logistic regression model, only handwashing ($p = 0.007$), exercise regularly ($p = 0.004$), leisure activities in my free time ($p = 0.000$) and seek help from a psychologist ($p = 0.036$) remained significantly associated with improved psychosocial impact of COVID-19 among health workers. In addition, the odds of improved psychosocial impact of COVID-19 among health workers who preferred hand wash as

the precautionary measure were 10.010 time higher than those who did not. Also, those who had leisure activities in their free time were more likely to improve the psychosocial impacts of COVID-19 than those who did not [odds ratio = 20.883].

5.4 Chapter Summary

This chapter has provided the discussion of the research findings relating to the psychosocial impacts of COVID-19 among healthcare practitioners in the selected hospitals in Lusaka district. The discussion of the research results was done in line with the objective of the research in concurrence with the studies reviewed in literature. The next chapter provides the conclusion, recommendations, and suggestions for future research.

CHAPTER SIX: Conclusions and Recommendations

6.0 Chapter Overview

The previous chapter provided the discussion of the research findings on psychosocial impact of COVID-19 among the healthcare practitioners in accordance with the objectives of the study. This chapter provides the conclusion, recommendation and suggestions for future research. This chapter was divided into three sections. The first section provided the conclusion of the findings presented in the study with respect to the assessment of psychosocial impacts of COVID-19 among healthcare practitioners in the selected hospitals in Lusaka district. The second section highlighted on the recommendations on how to help healthcare practitioners in times of pandemics with respect to their psychosocial impacts. The chapter ended by stressing on the areas to be focused for future research.

6.1 Conclusions

The first objective of the present study was to assess the psychosocial impacts of COVID-19 among healthcare practitioners in the selected hospitals in Lusaka district. The results showed that the majority of the respondents were concerned with the pandemic and that most of the respondents were nursing the patients of COVID-19. The results also showed that the respondents who were directly involved with COVID-19 patients were the majority in the study. With respect to the feelings of healthcare practitioners towards the impact of COVID-19, the results showed that the respondents' fairly often felt that they were unable to control the important things in their life, fairly often felt down or depressed or hopeless and felt difficulties were piling up. In addition, the respondents were almost never felt confident to handle personal problems and never felt things were going in their way due to COVID-19.

Further, the respondents fairly often felt to have little interest or pleasure in doing things, felt that physical activities decreased significantly, and spiritual or religiously disrupted. The results of the study revealed that the majority of the participants reported fearing the disease and its consequences, the majority reported fearing death due to COVID-19. Furthermore, the study showed that the prevalence of depression, stress and anxiety among the respondents stood at 60.9%, 70.1% and 76.8%, respectively. Also, the respondents reported that the quality of life and sleep reduced during COVID-19 outbreak and they were worried of getting the disease and infecting their loved ones at home.

The study also sought to establish the magnitude of the psychosocial impacts of COVID-19 among healthcare practitioners in Lusaka district. The results revealed that the level of severity of depression categorized as none, mild, moderate, severe and extreme severe stood at 3.9%, 5.3%, 15.0%, 35.7% and 40.1%, respectively. With respect to the severity level of stress, the study found that the majority were severely stressed followed by those who were moderately stressed. In addition, the results of the study revealed that most of the respondents were severely developed symptoms of anxiety followed by those with moderate symptoms of anxiety.

Furthermore, the study sought to examine the interventions implemented to alleviate the psychosocial impacts of COVID-19 among healthcare practitioners in Lusaka district. The findings of the study showed that the respondents agreed that positive attitudes from colleagues, hand washing and wearing of face mask, observing social distancing protocols, avoiding social gatherings, exercising regularly, taking zinc and vitamin C supplements, watching movies and reading for leisure were commonly reported ways of coping with the threat of the COVID-19 pandemic. In addition, praying more often than they used to, avoiding media news about COVID-19, seeking help from a psychologist, eating healthy diet to boost immunity and receiving of support from both the family and the community helped them to alleviate the psychosocial impact of the pandemic. Furthermore, precautionary measures such as handwashing, exercise regularly, leisure activities in my free time and seek help from a psychologist were significantly associated with improved psychosocial impact of COVID-19 among health workers in a multiple logistic regression model.

6.2 Recommendations

Based on the findings of this study, the following recommendations were made:

- There is a need for the health system to recognize the presence of these adverse psychological effects in healthcare practitioners and take pragmatic steps to address them.
- Healthcare practitioners must be encouraged to come out with their mental health issues and seek care early. They need to be informed about the availability of mental health services.
- Government through the Ministry of Health and other stakeholders must, therefore, put in place measures to mitigate the negative impact of COVID-19 on the mental health of healthcare practitioners.

- These findings therefore highlight the need for ongoing monitoring of mental health as the pandemic evolves, with efforts from the government to support healthcare practitioners.

6.3 Area of Future Research

There is need for future study to assess qualitative research to explore healthcare workers' workplace experiences to fully appreciate this burden. The risk factors associated with psychosocial problems have been identified elsewhere, however, in Zambia, there is need to carry out such research to understand risk factors of psychosocial problems due to COVID-19 among healthcare practitioners.

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APPENDICES

APPENDIX A: Information sheet

Research Topic

Title: Assessment of the psychosocial impacts of COVID-19 among healthcare practitioners at two major hospitals in Lusaka district.

Introduction

I would like to invite you to take part in my research study. Before you decide, it is important that you understand why the research is being done and what it would involve for you. Please take time to read this information, and discuss it with others if you wish. If there is anything that is not clear, or if you would like more information, please ask the researcher.

The researcher will be ready to attend to your questions and concerns and to provide further explanations. If you agree to take part in this study, you will be asked to sign this consent form after understanding its content. This process is known as Informed Consent. Be informed that your decision to take part in this study is voluntary. You are free to either accept or refuse to be part of it.

Purpose of the Study

The purpose of the study is to assess the psychosocial impacts of COVID-19 among healthcare practitioners in selected hospitals in Lusaka District. The purpose of the study will also be explained to the participants.

Selection of Participants

As health workers, you are chosen to participate in this study because you work from either Levy Mwanawasa Hospital or University Teaching Hospital, which is my study place of interest.

Voluntary Participation

Participation in this study is voluntary. There is no any in confidence or punishment if you choose not to participate. It is not mandatory to decide today about your participation. In other words, you do not have to participate in the study today, you can take your time and call the researcher when you are ready within the specified time you will be given. You are free to talk to anyone about your participation and you are free to withdraw from the study at any point.

There may be some words that you do not understand. Feel free to ask the researcher to stop and explain any information you may need to know.

Right to Refuse or Withdraw

Participation in this study is voluntary. Choosing to participate or not will not affect you at all. You may choose to stop participating in the study at any time that you wish without any problem. It is your full right.

Study Procedure

In this study a structured questionnaire will be administered. If you agree to be part of the study, the researcher will ask you to fill a questionnaire alone or with assistance for approximately 15 - 20 minutes. The questionnaire will be provided and collected by the researcher. The questionnaire will address questions about the psychosocial impacts of COVID-19 among healthcare practitioners and these are divided into subheadings; Section 'A' Demographic Data, describing the characteristics of the participants such as age, gender, religion and academic qualification, and Section 'B' focuses on the psychosocial issues; aiming at assessing the psychosocial impacts; the magnitude of the psychosocial impacts and the interventions that can be implemented to alleviate the psychosocial impacts of COVID-19 among healthcare practitioners. As a participant, if you agree to participate in this study, data from your responses will be used as part of my assessment of the psychosocial impacts of COVID-19 among healthcare practitioners in selected hospitals in Lusaka District.

Duration

For a questionnaire, it will take you about 15-20 minutes to fill it in.

Risks and Discomforts

Basically, there are no known risks or discomforts associated with this study. However, you may feel emotionally attached due to what you experienced during COVID-19 pandemic. However, the researcher will not share this information or identify you as the source of the information. But, if you may feel discomfort, you have the right to withdraw.

Benefits of Participation

This study is for academic purposes. There is no monetary gain for either researcher or participant. Your participation however will give you an opportunity as a healthcare practitioner to be aware of the psychosocial impacts that come with pandemics. With the new experience and gained knowledge from the study, the findings will also have potential to contribute to the policy and planning that will need development to prevent future psychosocial

impacts of the pandemics among healthcare practitioners. The findings of the study will further, help the management of healthcare departments to advocate and support the well-being of healthcare practitioners during pandemics. Additionally, the findings will help healthcare practitioners with regard to self-care strategies during pandemics in order to prevent psychosocial issues.

Confidentiality of Records

You do not need to indicate your name on the questionnaire. The questionnaire form will be anonymous. Be assured that the information you provide will be kept confidential and shall not be used against you. Only code will be used instead of your names. The completed questionnaire will be kept safely, locked with a lock and key. No any person else except the researcher will have right to access your information. When typing your survey responses into the computer, all data will be entered without any information that will make it possible for your identity to be known. The information you provide will be kept strictly confidential and will be available only to persons related to the study (the researcher and the supervisors). The original questionnaire will be destroyed once data entry is complete.

Cost/Compensation

Your participation in this study will not lead to you incurring any monetary cost during or after the study.

Sharing of results

As this study is among academic requirements, the study results will be presented first in the school panel as academic requirement then after, the study results will be shared with the management of the Hospitals. The study results will be anonymous, means that names will not be mentioned on them and thus the result sharing will be confidential. This activity will be achieved through meetings with the responsible personal at the two Hospitals. The written report of this study will also be availed at The University of Zambia Library both in soft and hard copy for easy accessibility to the users. The researcher will also publish the results in order that other interested people may learn from our research.

Who to contact

If you have any questions you may ask them now or later. If you wish to ask questions, you may contact *Kunda Chisanga, Master of Social Work and Community Development Student, School of Humanities and Social Sciences: on +260 975 455008; email: mulebachisanga@gmail.com*

Statement by the researcher/person taking content

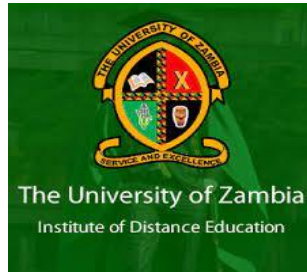
I confirm that the participant was given an opportunity to ask questions about the study, and all the questions asked by him/her have been answered correctly and to the best of my ability.

I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

Name and Signature of the Researcher:

Date (Day/Month/Year):

APPENDICES B: Informed Consent Form



THE UNIVERSITY OF ZAMBIA

SCHOOL OF HUMANITIES AND SOCIAL SCIENCES
DEPARTMENT OF SOCIAL WORK AND SOCIOLOGY

INFORMED CONSENT FORM

I have read and understood the information that has been presented to me in English languages. I have had all my questions answered to my satisfaction. I have been asked to participate in the above study and given free consent by signing this form.

My consent to participate is voluntary and I may withdraw from the survey at any time. I am further aware that the information I disseminate will be treated in confidence and I will not be personally identified.

(a) Signature or thumb print of participant.....

(b) Signature of Researcher.....

(c) Signature of witness.....

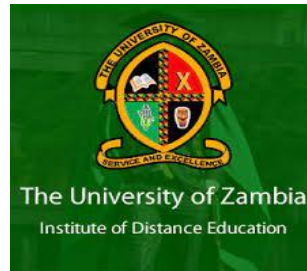
(d) Place.....

(e) Date.....

Contacts: *Kunda Chisanga, Masters Student, School of Humanities and Social Sciences:*

0975 455008

APPENDIX C: Questionnaire for Respondents



THE UNIVERSITY OF ZAMBIA

SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

Dear Respondent,

I am a Master's of Social Work and Community Development Student from The University Zambia carrying out research on *assessment of the psychosocial impacts of covid-19 among healthcare practitioners at two major hospitals in Lusaka district*

The reason for doing such an exercise is to assess the psychosocial impacts of COVID-19 among healthcare practitioners in selected hospitals in Lusaka District. You have been randomly selected as one of the respondents to take part in this research. Please be free to answer the questions that follow as objectively as you can.

Be assured that your responses will be treated with the highest confidentiality. No information that will be given in this study will be passed on to third parties and no information which identifies you as an individual or family will be included in the reports.

Yours Researcher.

Kunda Chisanga

Instructions

- 1. Answer all the questions to the best of your knowledge.
- 2. Do not write our name on the questionnaire
- 3. Indicate your answer by ticking in the appropriate box and fill in the blank spaces.

SECTION A: Demographic variables

- 1. What is your current age? (Years)
- 2. How would you describe your gender?
Female () Male () Prefer Not to Answer ()
- 3. What is your religion?
- 4. What is your current completed education level? High school graduate ()
Diploma () Associate degree () Bachelor’s degree ()
Some postgraduate () Master’s degree () Ph.D., or Medical degree ()
Others (specify)
- 5. Please specify your race/ethnicity: White () Black or African ()
Others (specify)
- 6. Were you concerned that you may have contracted the COVID-19?
Yes () No ()
- 7. Which department were you working in during COVID-19?
Medical-Surgical Unit () Critical Care Unit ()
Step-down Unit () OBGYN () Pediatrics ()
None-Patient Care Area () Other (specify):
- 8. What was your role in patient’s care during COVID-19?
Nurse () Social worker () Physician Assistant () Physician ()
Residents () Other (specify):
- 9. Did you provide direct care to COVID-19 patients? Yes () No ()

10. Please indicate the duration of direct care.

Only a few hours ()

1-14 days ()

15-29 days ()

1 month ()

More than 1 month ()

SECTION B: Questions on psychosocial impact

11. Did you fear the pandemic?

Yes () No () Not sure ()

12. What type of fear you had over COVID-19?

Isolation () Disease () Death ()

Perceived Stress

13. Did you experience symptoms of stress during the pandemic era?

Yes () No ()

14. During COVID-19, how often did you feel that you were unable to control the important things in your life?

Never ()

Almost Never ()

Sometimes ()

Fairly Often ()

Very Often ()

15. During COVID-19 period how often did you feel confident about your ability to handle your personal problems?

Never ()

Almost Never ()

Sometimes ()

Fairly Often ()

Very Often ()

16. In the COVID-19 period, how often did you feel that things were going your way?

Never ()

Almost Never ()

Sometimes ()

Fairly Often ()

Very Often ()

17. In the COVID-19 period, how often did you feel difficulties were piling up so high that you could not overcome them?

Never ()

Almost Never ()

Sometimes ()

Fairly Often ()

Very Often ()

Depression Assessment

18. During COVID-19, how often were you been bothered by the following problems?

19. Little interest or pleasure in doing things:

Never ()

Almost Never ()

Sometimes ()

Fairly Often ()

Very Often ()

20. Feeling down, depressed or hopeless

Never ()

Almost Never ()

Sometimes ()

Fairly Often ()

Very Often ()

21. Did you experience symptoms of depression during the pandemic era?

Yes () No ()

Family Impact

22. Did the COVID-19 outbreak had a negative impact on your family?

Strongly disagree ()

Disagree ()

Neither agree nor disagree ()

Agree ()

Strongly agree ()

Physical Impact

23. Did your physical activities decrease significantly during the COVID-19 pandemic?

Strongly disagree ()

Disagree ()

Neither agree nor disagree ()

Agree ()

Strongly agree ()

Spiritual Impact

24. Was your spiritual/religious rituals been disrupted due to the COVID-19 pandemic.

Strongly disagree ()

Disagree ()

Neither agree nor disagree ()

Agree ()

Strongly agree ()

Financial Impact

25. Have your finances been impacted as a result of COVID-19 outbreak?

Yes () No ()

Quality of life

26. How would you rate your current overall quality of life?

Excellent ()

Good ()

- Satisfactory ()
- Fair ()
- Poor ()

27. How would you rate your overall quality of life prior to COVID-19 outbreak?

- Excellent ()
- Good ()
- Satisfactory ()
- Fair ()
- Poor ()

28. How do you describe your quality of sleep during the COVID-19 outbreak?

- Excellent ()
- Good ()
- Satisfactory ()
- Fair ()
- Poor ()

29. Were you able to gain assistance from community or government programs during the COVID-19 outbreak? Yes () No ()

30. Please indicate the extent to which the following interventions alleviated the psychosocial impacts of COVID-19 among health workers. Please record your answer by ticking at the space provided, by the scale indicator.

(5 = strong agree; 4 = agree; 3 = not aware; 2 = disagree; 1 = strongly disagree)

No.	Suggested precaution	5	4	3	2	1
1	Hand washing/sanitizers/face mask and protective clothing					
2	Leisure activities in my free time					
3	Pray more often than I used to					
4	Avoid media news about COVID-19					
5	Positive attitudes form my colleagues					
6	Received family support					
7	Joking and chatting with friends					

8	Seek help from a psychologist						
9	Talk to religious leaders more often than I used to						
10	Eat healthy diet to boost immunity						
11	Exercise regularly						
12	Avoid social gatherings						
13	Observing social distance protocols						
14	Taking Zinc and Vitamin C supplements to boost immunity						

31. What support or assistance would you like to have or receive during pandemic outbreaks?

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THANK YOU