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‘An evaluation of the psychological impact of COVID 19 on health workers at The Avenues Clinic’

By

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A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF POST BASIC BACHELOR OF SCIENCE IN NURSING IN THE COLLEGE OF HEALTH, AGRICULTURE AND NATURAL SCIENCES

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Abstract

The psychological impact of COVID 19 pandemic on health workers is one of the most prevalent concerns all over the world. Health workers being front liners during the pandemic were mostly affected psychologically by the pandemic. The health emergency crisis has put health workers even more at risk of developing mental health problems. This study sought to evaluate the psychological impact of COVID 19 on health workers at The Avenues Clinic. The study examined to what extent the health workers were affected by the pandemic psychologically using the variables on symptoms of depression, anxiety, stress and fear. It further went on to determine the coping strategies used by the health workers during the pandemic. A cross sectional survey was done on 130 participants using interviewer administered questionnaires. The mean age of participants was 31years. Females made up 76.2% of the total sample while males were only 23.8%. Fear was prevalent among participants. Proportion of participants who feared catching COVID 19 was 90.7%, while 93.1% feared infecting family members with COVID 19. Other than fearing being infected and infecting family members, most participants, about 85%, also felt that their family members or friends were afraid of catching COVID 19 from them. Compared to stress, depression and anxiety were more prevalent. More than two thirds of the total sample, (68.5%) had depression while a similar proportion (66.9%) had anxiety. In contrast, stress registered opposite results to depression and anxiety, with only 16.2% of total participants registering symptoms of anxiety while 73.8% of the participants had no stress. Mild to extremely severe depression was higher in females compared to males. Anxiety and stress followed the same pattern. Different coping strategies were used by participants. Relying on factual information and receiving support if available were the most common coping strategies, both at 76.9%, followed by engaging in regular spiritual practices at 73.1% and family support at 65.5%.

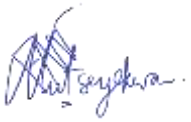
Key Words: Anxiety, Depression, Fear, Stress, COVID 19

Declaration

I Kolwanenkosini Katenjele, do hereby declare that this study is my original work except where sources have been cited and acknowledged. The work has never been submitted, nor will it ever be submitted to another university for the award of a bachelor's degree.

Kolwanenkosini Katenjele — 11/02/2022

Student's Full name — Student signature (Date)



Fadzai Mutseyekwa — 11/05/2022

Supervisors Full Name — Supervisor's signature

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Dedication

This study is dedicated to my late father, Mr Daniel Nyathi, my dear husband Engineer Bernard Katenjele and my lovely children Ruva, Simba and Ano. Your prayers, unconditional love encouragement, patience and faith have contributed to my success. My father, though no longer with us, you remain a great inspiration in my life.

List of Acronyms and Abbreviations

TAC:	The Avenues Clinic
WHO:	World Health Organisation
CDC:	Centre for Disease Control
COVID 19:	Coronavirus Disease 2019
SARS-Cov:	Severe Acute Respiratory Syndrome, Corona Virus
PPE:	Personal Protective Equipment
NSM:	Neuman's Systems Model
HW:	Health Workers

Definition of Terms

Psychological Impact: It is the effect caused by environmental or biological factors on individual's social and psychological aspects.

Stress: A state of mental or emotional strain or tension resulting from adverse or demanding circumstances.

Anxiety: A feeling of uneasiness, worry or nervousness about something with an uncertain outcome

Depression: A feeling of severe dejection.

Pandemic: A disease that is prevalent over the whole country or whole world.

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CHAPTER 1 INTRODUCTION

1.0 Introduction

This study focused on the psychological effects of COVID 19 on health workers at The Avenues Clinic in Harare. The Avenues Clinic is a private hospital in Harare Metropolitan province. It has 350 health workers. This chapter outlines the background of the study by presenting the problem statement, conceptual framework, research objectives, research questions and the justification of the study. Study assumptions, a review of related literature and methodology of the study will be included in later chapters of the study.

1.1 Background of the Study

A pneumonia outbreak of an unknown aetiology was first identified in Hubei City, in Wuhan province, China, on the 8th of December 2019 (Ghebreyesus, 2019). According to Wu & McGoogan (2019) the Chinese Centre for Disease Control (CCDC) reported the occurrence to World Health Organisation (WHO) at the Chinese Office on the 31st of December 2019. On the 11th of February 2020, WHO named the disease Coronavirus disease 2019 (COVID 19).

The Coronavirus disease 2019 9 (COVID 19) was caused by a novel coronavirus named SARS-CoV-2 by the Coronavirus study group (Gorbelenya & Baker 2020). Following the first outbreak in China the disease spread fast across the world. As a result WHO declared it a global health emergency on the 30th of January 2020 and a Global pandemic on the 11th of March 2020 after causing significant morbidity and mortality in China, the COVID 19 pandemic spread throughout other countries including, America, Italy, Spain, Germany,

France an Iran. As of April 2020, COVID 19 had spread to 198 countries, infecting 2.4 million people and causing 150000 deaths across the world (Holshue 2020).

According to Worldometer (2021) the live updates show that the COVID 19 cases worldwide stand at 245,5million and recorded deaths stand at 49,8million. Zimbabwe has recorded 132, 724 cases and 4,674 deaths as at 27 October 2021.

In epidemic and pandemic crises health workers are usually at the forefront and they constitute a vulnerable population with an increased risk of infection, stress, depression and fear (Cabarka, Nadjidai, Murgier, et al 2020). According to Sturjfzand, Deforges, Sandoz, et al (2020) a rapid review done on psychological impact of COVID 19 and other viral epidemics on health workers, indicated that recent 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 COVID 19 globally.

Regionally, a study carried out in Ghana in three hospitals to assess the psychological impact of COVID 19 on health workers, observed a 45% prevalence of fear of COVID 19 and two such studies done in Mexico and Philippines were used for comparisons. These two studies reported mean fear scores of 19,3% and 19,9% (Garcia-Reyna, Carstillo-Garcia, Barrbosa-Carmacho et al 2020). Depression, anxiety and stress showed a prevalence of 21%, 27,8% and 8,2%.

Nationally there are no figures that show the impact of COVID 19 on health workers in Zimbabwe, though According to Mazhandu (2020) the anxiety is so high among health workers that it can make people believe that they have COVID 19 without an actual

diagnosis. She further reiterate that as a psychiatrist she has counselled several patients struggling with depression related to COVID 19.

1.2 Problem statement

The Avenues clinic has 350 health workers. 50 workers (14,3%) have tested positive to COVID 19 during the period between July 2020 and September 2021. Despite the hospital providing personal protective equipment (PPE), a number of health workers contracted COVID 19. The workers who tested positive to COVID 19 were quarantined for between 14 and 40 days mostly at their homes. Shortages of staff prevailed in the departments due to some workers being on quarantine. Problems associated with quarantine included fear, anxiety and isolation. Those who remained at work were overworked as they tried to cover other shifts because of shortage. They expressed lack of confidence in the PPE provided and feared contracting COVID 19 as well.

The Avenues Clinic People and Culture department conducted an analysis on the impact of COVID 19 on the workers, their analysis mainly focused on the number of days employees were away, that is time lost for the company. (See tables1.1, 1.2 and 1.3). They also focused on the physical symptoms that employees complained of. This study will look into the psychological impact of COVID 19 on the health workers.

COVID 19 Exposure and Impact Analysis on Health workers at the Avenues Clinic.

Table 1:1 Number of health workers who tested positive to COVID 19 according to their Gender

GENDER	NUMBER OF COVID 19 POSITIVE CASES
MALE	14
FEMALE	36

Table 1:2 Number of health workers who tested positive to COVID 19 according to their jobs

JOB TITLE	NUMBER OF COVID 19 POSITIVE CASES
NURSING	32
DOCTORS	2
PHARMACY	4
SUPPORT STAFF	12

Table 1:3 1 Number of days employees spent on quarantine

QUARANTINE PERIOD (In Days)	NUMBER OF HEALTH PERSONEL
10-15	10
16-20	11
21-25	10
26-30	7
31-35	5
36-40	4
41-45	3

Source: The Avenues Clinic People and Culture Department

1.3 Study Justification

According to Brooks (2020) the COVID 19 pandemic has swept across the world. Many countries and regions have adopted measures such as lockdown to regulate movement and workplaces. The pandemic has brought about psychological problems hence the need to investigate and better understand the problems caused by the pandemic. This study has been necessitated by the need to evaluate the psychological impact of COVID 19. About a third of the employees tested positive to COVID 19 and had to spend at least 14 to 40 days of quarantine at home.

Most of the employees stay with their families. The employees who remained carried the burden of delivering quality care to patients. This resulted in them working overtime. Overworking can lead to stress and burnout. The study will also identify potential psychological interventions which may assist health workers to cope with the effects of the pandemic. The results can be generalised to other health workers in other hospitals in Harare Metropolitan province. The Ministry of Health and Child Care (MoHCC) can use the information for improvements of health workers' welfare and for implementing new polices.

1.4 Research Objectives

The broad objective and specific objectives are given below

1.4.1 Broad Objective

The broad objective of the study was to evaluate the psychological impact of COVID 19 among health workers at The Avenues Clinic between July 2020 and September 2021

1.4.2 Specific Objectives

1.4.2.1 To assess the extent of COVID 19 related fear among health workers at The Avenues Clinic between July 2021 and September 2021

1.4.2.2 To assess the extent of COVID 19 related anxiety, stress and depression among health workers at The Avenues Clinic between July 2020 and September 2021

1.4.2.3 To determine strategies workers have used to cope with anxiety and stress related to COVID 19 among health workers at The Avenues Clinic between July 2020 and September 2021

1.4.2.4 To assess the effectiveness of teamwork and support programmes at the workplace between July and September 2021

1.5 Research questions

The main research question and specific research questions are given below.

1.5.1 Main Research Question

What is the psychological impact of COVID 19 among health workers at The Avenues Clinic?

1.5.2 Specific Research Questions

1.5.2.1 What is the extent of fear related to COVID 19 among health workers at The Avenues Clinic?

1.5.2.2 What is the extent of anxiety, depression and stress related to COVID 19 among health workers at The Avenues Clinic?

1.5.2.3 What are the strategies used by health workers to cope with stress and anxiety related to COVID 19 among health workers at the Avenues Clinic?

1.6 Study Limitations

The researcher is a student who is guided by the University calendar which will influence the study to be conducted in a short period of time. This may result in inadequate information being collected which may distort the study results. There has been a high staff turnover for health workers at The Avenues Clinic especially among nurses. Some nurses who may provide data might not have been at The Avenues Clinic during the peak of the pandemic. Efforts will be made to reach out to nurses who have already resigned from the Clinic but were present during the peak of the pandemic.

1.7 Study Delimitations

The study was carried out at The Avenues Clinic on 130 health workers. The results were generalised. Cross sectional data collection which originates from self-reported data makes it difficult to validate claims made by respondents in the course of administration of the questionnaires.

The researcher is a novice in research and she developed and used the research instrument for the first time. The research instrument may not have yielded accurate and detailed information which may have distorted the results despite the instrument having been pretested for validity and reliability.

1.8 Summary

This chapter presented the background, problem statement, significance of the study, research objectives and research questions. It also highlighted limitations and delimitations of study. The next chapter will review literature on psychological impacts of COVID 19 among health workers and it will also include the conceptual framework of the study.

CHAPTER 2 REVIEW OF RELATED LITERATURE

2.1 1ntroduction

This section of the proposal presents a brief review of literature related to impact of COVID 19 among health care providers. Having presented the background information relating to the study this chapter being guided by the research questions and objectives presents review of the related literature. This chapter will also address the theoretical framework that guides the study. It will also look at the extent of depression, anxiety, stress and fear among health workers due to COVID 19 pandemic. Coping strategies for stress, depression and anxiety and their effectiveness will be explored.

2.2 Theoretical Framework

Theories are formulated to explain, predict and understand phenomena and in many cases, to challenge and extend existing knowledge within the limits of critical bounding assumptions. The theoretical framework is the structure that can hold or support a theory of a research study. The theoretical framework introduces and describe the theory that explains why the research problem under study exists (Abend, 2013).

Robson, (2002) stated that studies should have a definitive theory prior to commencement of the study. In this study the researcher will be guided by Neuman's Systems Model. (NSM) This is a theory that was developed by Betty Neumann and it focuses on the holistic care for clients who face actual and potential environmental stressors (Neuman, 1996). Neuman's Systems Model can be applied to individuals or groups (Ahmadi & Sadeghi, 2017). The individual or group is viewed as an open system receiving and providing interaction with the environment. The researcher therefor applies this theory to this study because the health

workers affected by COVID 19 pandemic represent a large group and each individual health worker within this system will have different lines of defence and stressors affecting their overall stability.

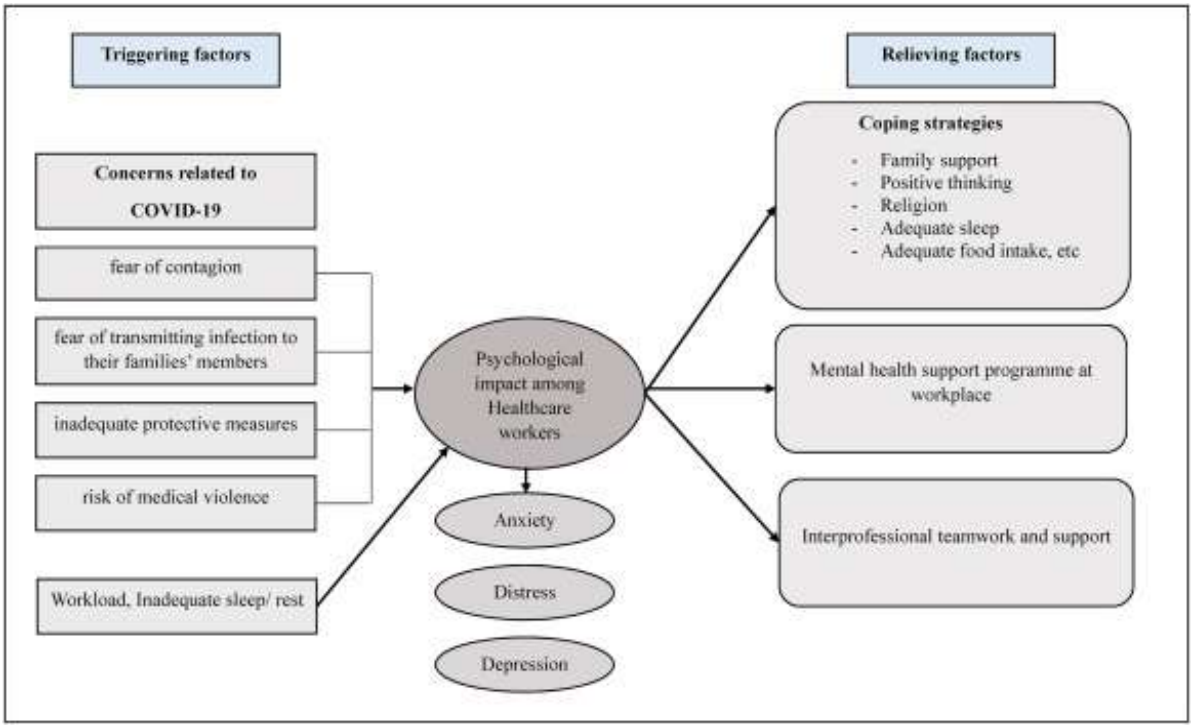
The Neuman's Systems Model is a theoretical framework that resolves around the structure of stressors, the emotional response to these stressors and the corresponding interventions. According to Kerime (2017) the Neuman's Systems Model theoretical framework establishes a holistic approach which incorporates five major factors and these are physiological, psychological, sociocultural, spiritual and developmental. Using these factors the stressors are organised into intra, inter and extra personal stressors. Organising how these stressors affect individuals helps in identifying and analysing the main source of where the stress is coming from. During the COVID 19 pandemic health workers at The Avenues Clinic experienced stress while working in the high demanding environment because of shortages of staff due to quarantine. Other workers also experienced stress because they had contracted COVID 19, they were quarantined and they feared infecting their families as well.

Neuman's System Model stressors are derived from the environment and have direct effects on the physical, psychological, sociocultural and environmental variables (Renato de Oliveria, 2018). Health workers involved in direct patient care during COVID 19 pandemic have numerous stressors that affect their mental and physical health. Due to the widespread nature of COVID 19, Health workers are also having to deal with changes in sociocultural norms such as physical distancing measures (Maben & Bridges, 2020). Fear and Concern with the level of infectivity result in health workers having to further isolate themselves from loved ones (Maben & Bridges, 2020). These interruptions to health workers normal social lives result in feelings of further isolation and loneliness which produces stressors. According

to Neuman's theory individuals are viewed as an open system interacting with the environment through feedback loop of stressors, and the effects of the variables. Therefore changes in the environment, in this case COVID 19 pandemic can affect the experience and perception of stressors which in turn affects the health workers interaction with the environment.

Extra personal domains in case of the COVID 19 pandemic, pertains to overall social changes related to physical distancing, quarantine and the burden of caring for the COVID 19 patients. Use of PPEs its availability and social media information can affect the wellbeing of health workers at varying levels depending on how much support they get. During COVID 19 pandemic mental health, stress, anxiety and depression are high among health workers and support for their mental health is inadequate (Ford 2020).

Fig 2.1 Theoretical Framework based on the Neuman's Systems Model



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

2.3 Anxiety, Depression and Stress Related to COVID 19

The COVID 19 pandemic has generated stress throughout health care workers. The impact of COVID 19 pandemic need to be fully analysed. According to a study done in China between November 2019 and September 2020, several studies on psychological impact of COVID 19 on health workers were pooled together. Of the 44 studies pooled the prevalence of anxiety was 37 %, depression 39% and insomnia 32%. According to Cheng, Zhan, Xi, et al (2020) a study carried out in Saud Arabia to assess the psychological outcomes of the COVID 19 pandemic on health workers revealed that more than 50 % of health workers have psychological impacts in terms of depression, anxiety and stress during the global emergency.

According to Arafat, (2020) symptoms of depression were high among health workers at 69% in comparison to anxiety 58% and stress 59%.

In Ghana a survey done in Ashanti region showed that 40% of respondent had fear while 21, 1 %, 27,8% and 8,2% had depression, anxiety and stress respectively. Global cases of COVID 19 stand at 244million and 4,495million deaths as at 25 October 2021. Africa accounts of 2, 1% of the global cases (WHO 2021). Besides the strain of health infrastructure, human resources and equipment deficit placed on health systems COVID 19, same as other infectious disease outbreaks causes a lot of psychological issues such as anxiety, depression and stress that affect the general wellbeing of health workers (Pappas, Kiriaze, Giannakis et al 2020).

Lai, Ma, Wang, et al (2019) in their study on factors associated with mental health outcomes among health workers exposed to COVID 19 reflected that professional women showed moderate to severe depression, anxiety and stress. The women were more predominant in their study as more females appear to be mostly affected by the COVID 19 pandemic. Similarly data collected from this study setting which is The Avenues Clinic more females were positive to COVID 19 compared to males. 36 out 50 health workers who tested positive were females that's about 72%.

The figures from above studies clearly shows that the psychological impact of COVID 19 on health workers are quite significant and they are indeed a cause for concern. In Zimbabwe though there is no much statistics as to how COVID 19 has impacted on health workers, Mazhandu (2020) has reiterated that there is abound fear among Zimbabweans especially health workers. There is fear of contracting the disease and infecting loved ones and adding

to the burden is the stigma associated with the disease. People get anxious and distressed by finding out that they are infected. The anxiety is so high that it makes people believe that they have the disease before their diagnosis (Mkhwekwezeke 2020). Mkhwekezeka further goes on to say that Zimbabwe is simple not carrying out enough tests. The pace of the results is slow and this has psychological impact if duration between tests and results is long.

2.4 COVID 19 Related Coping Strategies for Anxiety, Depression and Stress

Stress, anxiety and depression go hand in hand with the COVID19 pandemic, results from studies done globally have shown the increasing prevalence of mental health disorders among various population groups.

According to World Health Organisation (2020) feelings associated with stress, anxiety and depression and also feeling under pressure are likely feelings for health workers during the COVID 19 pandemic. The health workers need to take care of themselves and also use useful coping strategies such as ensuring sufficient rest and respite during working hours. Health workers may experience avoidance by their family members or community owing to stigma or fear, this further increases stress and depression. In order to cope, the health workers may try to stay connected with their families through use digital methods. (WHO (2020). For social support health workers are also encouraged to turn to colleagues, their managers or people they can trust.

Centre for Disease Control (2020) (CDC) encourages health workers to use the following strategies to cope with stress:

Taking breaks from watching, reading or listening to new stories, though it is good to stay informed, social media news can be disturbing at times therefor health workers should limit the number of times they listen to news.

Heath workers are encouraged to stay health by taking care of their bodies through regular exercises such as deep breaths and stretch exercises, eating well balanced meals, getting plenty sleep and avoiding excessive alcohol, tobacco and substance use.

2.5 Summary

In this chapter relevant literature on theoretical framework guiding the study was reviewed. Literature on anxiety, depression, stress and fear related to COVID 19 and strategies used for coping was reviewed. Literature review was guided by the study objectives.

CHAPTER 3 METHODOLOGY

3.1 Introduction

Polit and Beck (2004) described research methodology as the investigations of the ways of obtaining, organising and analysing data. This chapter focuses on the research methodology that gives the study its scientific merit which is the degree to which a study possesses theoretical relevance and internal and external validity (Polit and Hungler, 2008). This chapter presents the research design, study setting, study population, exclusion and inclusion criteria. It also addresses the sample size, sampling procedures, research instruments, pretesting of the research instruments, data collection procedure, data analysis, dissemination of research findings and ethical considerations in research.

3.2 Research Design

Research design is a structure that guides the execution of a research method and he analysis of the data (Bryman and Bell, 2007). This study used a quantitative approach and the design was a cross sectional survey research design. A quantitative research involves investigation of a topic through thorough and exhausting measures (Polit and Beck, 2004). Quantitative research is an inquiry into a social problem and explains phenomena by gathering data to describe, explain, predict or control variables or phenomena of interest (Gray, Mills and Airasian, 2009). A cross sectional survey was used in this study.

3.3 Study Population

A research Population refers to groups or numbers of people who are potential participants in the study (Burns and Groove, 2009). In this study the population are health workers at the Avenues Clinic.

3.4 Inclusion Criteria

The study included all consenting health workers in full-time permanent posts at The Avenues Clinic regardless of having tested positive to COVID 19 at any given time or not.

3.5 Exclusion Criteria

Health workers who are engaged to work on locum bases and those who do not consent to participate in the study despite being permanent employees were not be included in the study.

3.6 Sample size

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

In order to get a sample size for this study, the researcher used the Raosoft sample calculator to calculate the sample, at 95% degree of confidence and a margin error of 5% and a response distribution of 50%. Population size of health workers at The Avenues Clinic is 350.

Where n = Sample size

N =Total Population

e= Error tolerance

Z = Value of confidence interval of 95%

P= Population proportion

Therefore with a total population of 350 health care workers at 95% confidence level the sample size for the study was 184.

3.7 Sampling Procedure

In this study health workers at The Avenues Clinic who met the inclusion criteria were sampled as participants. A nonprobability sampling method was used. The researcher used convenience sampling because data for the study was collected from the health workers who were present at the time of data collection.

3.8 Research Instrument

Information was collected by the researcher from the study participants through the use of self -administered questionnaires. The self-administered questionnaires were distributed by the researcher to Health workers at The Avenues Clinic. The health workers were asked to take part in the study and only those who consented to the study were given the questionnaires.

3.8.1 Pretesting of the research instrument

Pretesting of the Questionnaire was done on 10 health workers. The health workers given questionnaires for pretesting were then excluded from participating in the study. Pretesting of the research instrument was done in order to evaluate if the questionnaire was fully understood by the participants. The instrument was checked for validity and reliability Validity is the degree with which an instrument measures what it is supposed to measure (Polite and Hungler 2008) while reliability measures consistency, precision, and trustworthiness of the research. (Chakrabaty 2013).

3.8.2 Data collection procedure

Data was collected from participants, after obtaining informed consent, from those who met the inclusion criteria. Written questions were presented to participants and they answered questions in writing.

Data collection was done over a period of 28 days to cater for all shift changes for health workers. The researcher encouraged the study participants to adhere to all preventive measures for COVID 19 during the study. Consenting participant signed a valid consent form. The researcher introduced self and handed out the questionnaire. She also gave information regarding the study and explained to the participant on how to complete the questionnaire. The questionnaires were collected by the investigator immediately after completion.

The Depression, Anxiety and Stress Scale (DASS) was used to assess COVID 19 related depression, stress and anxiety. The questionnaire was designed with questions that addresses depression stress and anxiety. The questions that addressed depression and anxiety were 25. The first 8 addressed depression, the next 8 addressed anxiety and the final 9 addressed stress. The DASS is designed to measure negative emotional states of depression, anxiety and stress (Aldian 2021).

Severity label	Depression	Anxiety	Stress
Normal	0-9	0-7	0-14
Mild	10-13	8-9	15-18
Moderate	14-20	10-14	19-25
Severe	21-27	15-19	26-33
Extremely Severe	28+	20+	34+

Table 3.8 The Scores for Severity Labels of the DASS. Adapted from Keshin G. Self – Report measurement of depression, anxiety and stress. Pesqui Brass Odontopedria Clin Integer 2021

3.9 Study Setting

The study was carried out at The Avenues Clinic in Harare Metropolitan Province. The Avenues Clinic is situated in the Avenues Area just outside the Central Business District (CBD). It serves mostly the elite members of the society. Health workers employed by the Avenues Clinic possesses the qualities of delivering highest standard of quality care. The Clinic care provides, medical care, surgical procedures and Maternity and Child Care services.

3.10 Data Analysis

Data collected was coded and entered into Microsoft Excel. Quantitative data analysis was done using descriptive statistics such as frequency distribution, percentages and central tendency. Data presentation was done in form of graphs and frequency tables followed by narratives.

3.11 Ethical Considerations

Permission to carry out the study was sought and granted by The Avenues Clinic Ethics Committee. An ethical approval to conduct the study was sought from the Africa University Research and Ethics Committee (AUREC). AUREC is an ethical review committee which protects study participants. The purpose of the study and the objectives was clearly explained to the participant. The participant gave a voluntary informed consent and they were not coerced. The participant were free to withdraw from the study whenever they felt like, at any time of the study with no prejudice. Data obtained was kept in strict confidence. The completed questionnaires were kept by the researcher in sealed envelopes to maintain confidentiality. No other people within the hospital had access to the questionnaires. Privacy was maintained at all times. There were no names on the questionnaire. Infection control protocols were observed, wearing of mask, maintaining social distance and washing of hands and use of sanitizers.

3.12 Summary

This chapter highlights the study design, inclusion and exclusion criteria. The sample size was determined and the sampling method established. The research instruments and data collection techniques were discussed. Data presentation analysis methods and ethical considerations were also highlighted.

CHAPTER 4 DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter will present the levels of COVID 19 related fear, anxiety, stress and depression as observed among health workers at The Avenues Clinic. Perceptions regarding COVID 19 and Copying strategies were analysed. This was a cross sectional survey study. The intended study population was 183 healthy workers. Though the final study was done on 130 employees because some participants who were recruited did not return the questionnaires and some questionnaires which came back were incomplete.

Collection of Data was done over 28 days. Data presentation will start with demographics which include distribution of participants by their ages, marital status, gender and their area of work.

4.2 Demographics

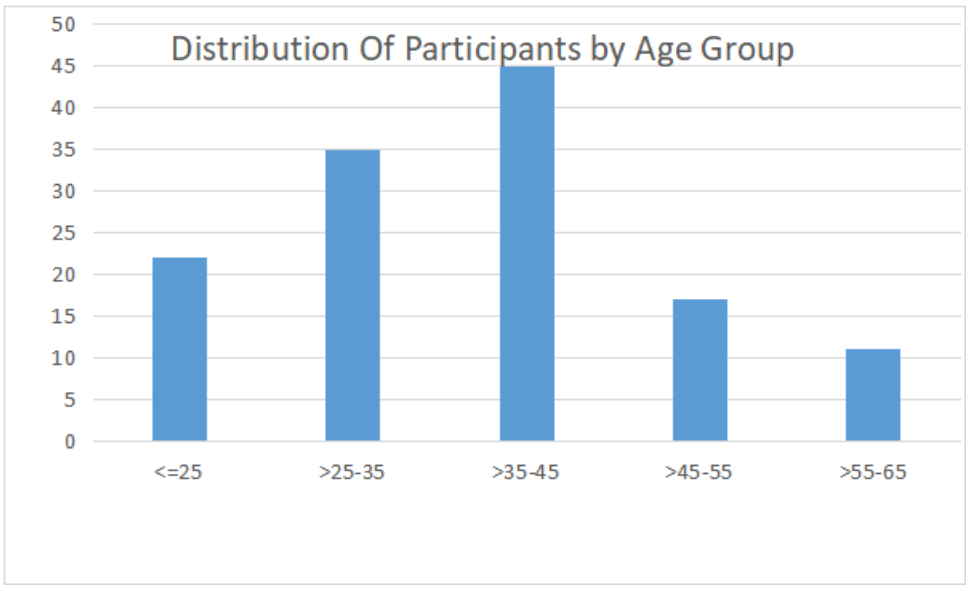


Fig 2 Distribution of Participants by Age Group

The majority of participants were in the age group >35to 40 years (34.1%, n=45). The oldest participant was 59 years old and the youngest was 23years old. The mean age was 36years. The study constituted of more females than males, the females were 76.2% (n=99) compared to males who were 23.8% of the sample (n=31). The majority of participants were married. More females as compared to males were married. Fifty-eight females were married (44.6% of total sample), while 20 of the 31 males were married (15.4% of total sample). Total married participant were 60% (n=99). There were 46 single participants (35.5%) inclusive of both males and females. Widows constituted the minority at 4.6% (n= 6)

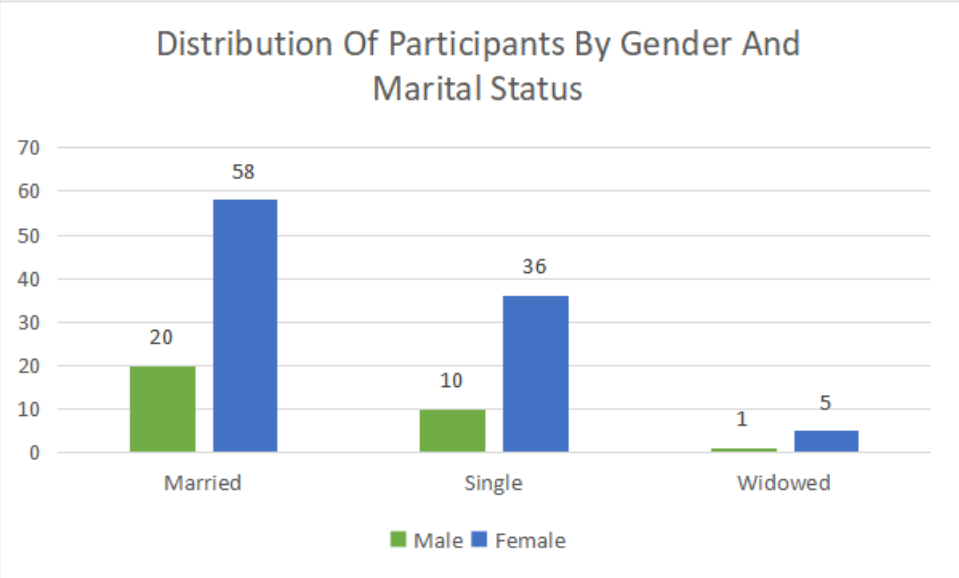


Fig 3 Distribution of participants by Gender and Marital Status.

4. 2.1 Area of work.

Participants were drawn from different departments in the hospital namely, casualty, wards, pharmacy, accounts and other. Departments which fell under 'other' included special area such as theatres, critical care units, central sterile supply department, administration offices

and school of nursing. Of the 65 participants who indicated their area of work as 'other' 24 were from theatre department (18.5% of total sample), 20 were from critical care unit (15.4% of total sample), 12 were from central sterile supply department (9.2% of total sample), 4 were from administration offices (3.1% of total sample) and 5 were from the school of nursing (3.8% of total sample). These made up the majority of participants as they constituted 50% of the sample (n=65). Participants from the wards were 24.6% (n=32), casualty comprised of 11.5% (n=15). Then followed accounts department with 8.5% (n=11). The least number of participants was from pharmacy department, which accounted for 5.3% (n=7). Different cadres in these areas participated in the study. These include, doctors, nurses, ward clerks, nurse aides and ancillary staff.

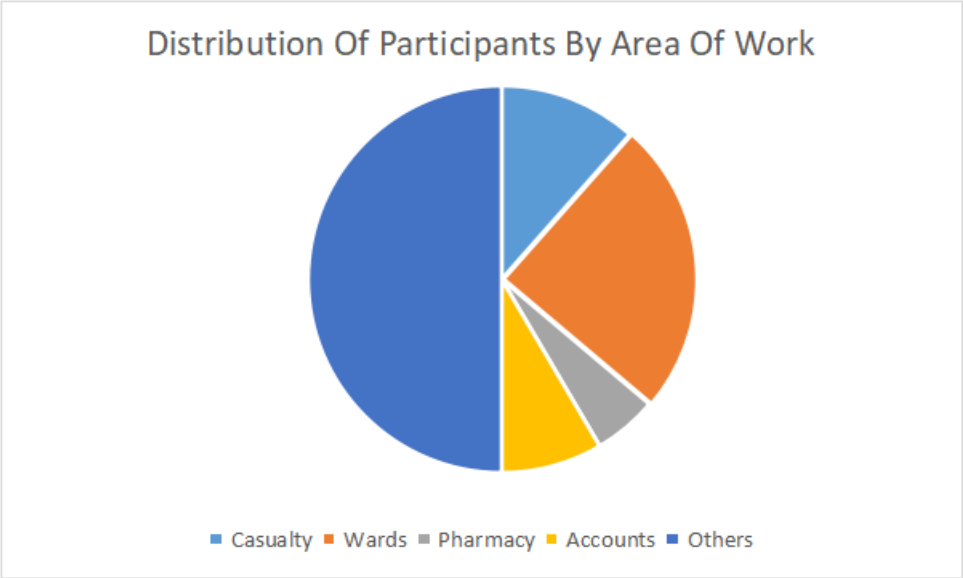


Fig 4 Distribution of Participants by their Area of Work.

4.2.2 Frequency of Dealing with COVID 19 Suspected or Informed cases

High	**Medium**	**Low**
43 (33.1%)	50 (38.5%)	37 (28.5%)

Table 4.1 Frequency and percentages of staff who responded that they expect to deal with potential or proven COVID 19 patients as part of their routine work

Participants who responded that their frequency of dealing with COVID 19 confirmed or suspected cases was high constituted 33.1% (n=43). These participants were mostly from casualty, critical care areas and wards. Some participants from the same areas indicated their frequency of dealing with COVID 19 suspected areas as medium, these constituted 38.5% (n=50) of the participants. 28.5% (n =37) of participants responded that their frequency of dealing with COVID 19 confirmed or suspected cases was low and these participants were mostly from administration offices, school of nursing, accounts and pharmacy departments.

4.2.3 Status of Training on use of PPE

Majority of participants 84.6% (n=110) were trained in use of PPE while only 15.4% (n=20) responded that they were not trained in use of PPE. Participant who responded 'no' to status on training of use of PPE where mostly from work areas such as pharmacy and accounts.

4.2.4 Illness from COVID 19

The study sample included both participants who had been previously ill from COVID 19 and those who had never been ill. The participants who had previously ill from COVID 19 constituted 38.5% of the total sample (n=50), while 61.5% (n=80) had never been ill. The length of illness ranged from seven days to one month for those participants who were ill from COVID 19. The average length of illness was 14 days.

4.2.5 Participants who covered extra shifts because colleagues were away due to COVID 19

The participants who covered extra shifts because colleagues were away due to COVID 19 constituted 61.5% (n=80) of total sample. 50 out of the 80 participants who covered extra shifts, (62.5%) went on to tell us how they felt while covering the extra shifts and how they were coping with the extra workload. Some of their responses were, that it was difficult to

cope with the extra workload, the extra shifts were ‘hectic,’ ‘tiresome’, ‘strenuous’ and ‘exhausting’. Others said they felt ‘overwhelmed,’ ‘stressed’ and they were afraid of burnout. Some participants said they felt the need to do extra shifts so that the patients care was not compromised. In some responses, participants said the extra money they earned from covering covid 19 related extra shifts motivated them to continue working. Some participants said they felt very tired after extra shifts and they ended up being unable to come for duty as well. The use of locum nurses also helped reducing workload and extra shifts.

4.3 COVID 19 Risk Perception

Risk Perception	Strongly disagree	Disagree	Agree	Strongly Agree
I feel am at greater risk of getting infected with COVID 19	15 (11.5%)	11 (8.5%)	78 (60%)	26 (20%)
I think of resigning because of COVID 19	35 (27%)	75 (57.7%)	9 (7%)	11 (8.5%)
I feel that my family is at risk of COVID 19 infection because of my work	11 (8.5%)	18 (13.8)	77 (59.2)	24 (18.5%)
Protective measures such as PPE are not effective against	15 (11.5%)	78 (60%)	29 (23.3%)	8 (6.1%)

COVID 19				
My Job is putting me at risk of contracting COVID 9	15 (11.5%)	34 (26.2%)	58 (44.7)	23 (17.7%)

Table 4.2 perception of COVID19 Risk

The health workers had perceived COVID 19 differently. 80% (n=104) of total participants agreed that they felt that they were at a greater risk of getting infected with COVID 19. 20% (n=26) strongly agreed. Despite the health workers perceiving that they were at a greater risk of being infected with COVID 19, the majority of them, 84.5% (n=110) were not thinking of resigning from their work because of COVID 19. Though, about 15.5% (n=20) thought of resigning.

Majority of participants, 77.7% (n=101) agreed that they felt that their families were at risk of getting infected with COVID 19, while 22.3% (n=29) disagreed. The use of protective measures such as personal protective equipment were perceived to be very effective against COVID 19. The majority of health workers, 71.5% (n=93) disagreed that personal protective equipment was not effective against COVID 19.

4.4 COVID 19 Related Fear

Fear Factor	Never (n) %	Seldom (n) %	Sometimes (n) %	Often (n) %
I was afraid of falling ill with COVID 19	8 (6.1%)	4 (3.1%)	61(46.9%)	57(43.8%)
I thought I would be unlikely to survive if I catch COVID 19	37(28.5%)	10(7.8%)	62(47.7%)	21(16.2%)
I was afraid I will pass COVID 19 to my family	8 (6.1%)	1(0.8%)	52 (40%)	69(53.1%)
I thought my friends and family were worried that they might get infected through me	10 (7.7%)	9 (6.9%)	52(40%)	59(45.4%)
I was afraid and felt as if people avoided my family because of me	35 (26.9%)	14(10.8%)	51(39.2%)	30 (23%)

Table 4.3 COVID 19 related Fear

Most respondents (90.7%, n=118) feared catching COVID 19, as shown by the "sometimes" and "often" respondents, indicating that health practitioners' fears of catching COVID 19 were real. Similarly, about two thirds (63.9%, n=83) of the respondents feared being unlikely to survive after catching COVID 19. From the same reasoning, most respondents (93.1%, n=121) feared infecting family members with COVID 19. Likewise, most respondents (85.4%. n=111) also thought that family members were afraid of catching COVID from them (health workers). About two thirds (62.2%, n=81) of respondents detected stigma being directed at their family members.

4.5 COVID 19 Related Depression, Stress and Anxiety

The DASS scale as described in the methodology section was used to assess the levels of depression, anxiety and stress among health workers at The Avenues Clinic.

Severity Label	Depression (n) %	Anxiety (n) %	Stress (n) %
Normal	(41) 31.5%	(43) 33.1%	(96) 73.8%
Mild	(29) 22.3%	(24)18.4 %	(16) 12.3%
Moderate	(37) 28.5%	(32) 24.6%	(10) 7.7%
Severe	(21) 16.2%	(14) 10.8%	(7) 5.4%
Extremely Severe	(2) 1.5%	(17) 13.1%	(1) 0.8%

Table 4.5 COVID 19 related depression anxiety and stress.

Depression and anxiety were more prevalent compared to stress. Mild to moderate depression was at 50.7 % (n=66) with mild depression at 22.3% (n=29) and moderate depression at 28.4% (n=37). Severe depression was 16.2 % (n=21) and extremely severe depression was not much prevalent at 1.5 % (n=2).

The prevalence of COVID 19 related anxiety followed that of depression. Mild to moderate anxiety was at 43.6% (n=56). Participants with mild anxiety were 18.5 % (n=24) and those with moderate anxiety were 24.6% (n= 32). Severe anxiety was less prevalent compared to severe depression at 10.8% (n=14) compared to16. 2 % (n=21) for severe depression, whilst extremely severe depression was less prevalent compared to extremely severe anxiety at 1.5% (n=2) and 13.1% (n=17) respectively.

Moderate to extremely severe depression was higher in females compared to males. Females with moderate to severe depression were about 27%. Anxiety registered 48.5% for moderate to extreme severity. Anxiety was also observed to be more prevalent in females compared to males.

Total participants with depression, as defined by 'Severity Label' other than 'Normal', were 89, representing 68.5% of total population, which is slightly more than two thirds of the total number of participants. Similarly, total participants with anxiety were 87, representing 66.9% of total sample. This was slightly more than two thirds of the total number of participants. Stress, on the other hand, registered opposite results to depression and anxiety, with 16.2% (n=34) having symptoms of stress. The participants who did not have symptoms of depression, anxiety and stress, as defined by 'Severity Label' of 'Normal', were 31.5% (n=41), 33.1% (n=43) and 73.8% (n=96), respectively.

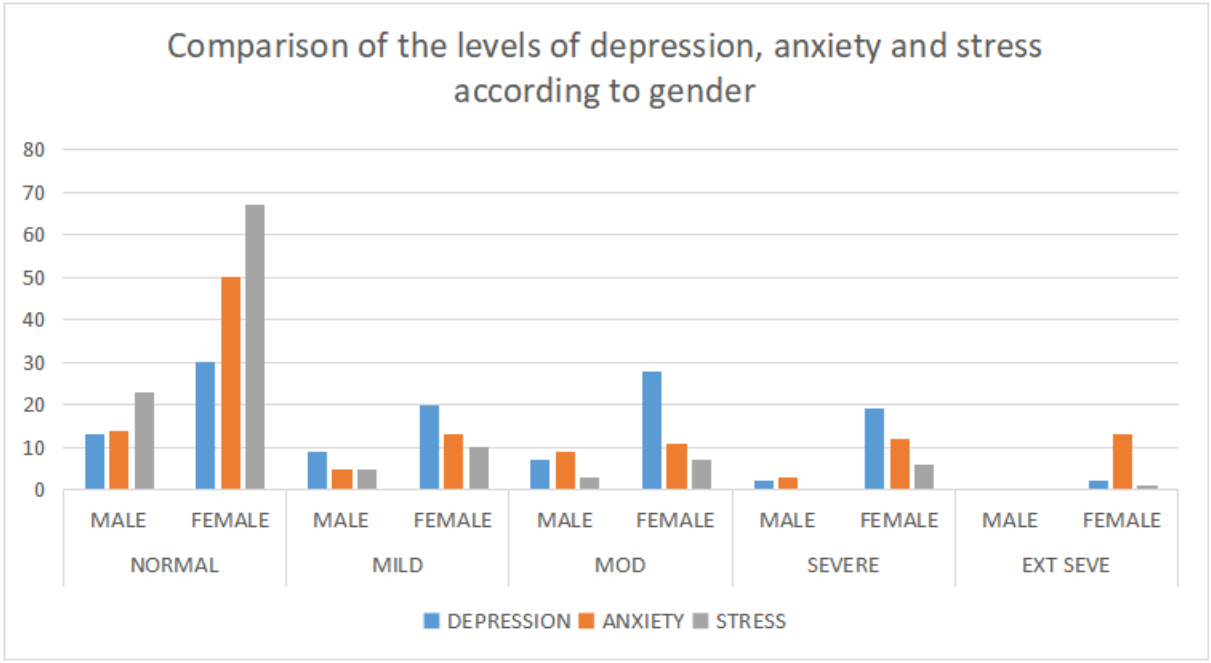


Fig 5 Comparison of Levels of Depression, Anxiety and Stress According to Gender.

Mild to extremely severe depression was higher in females compared to males. Anxiety and stress showed the same pattern as depression for females and males. More females than males registered normal symptoms for depression, anxiety and stress.

4.6 Strategies used by Health workers for Coping with COVID 19

Coping Strategies	Yes (n) %	No (n) %
Relying on verified sources for information on COVID 19	(100) 76.9	(30) 23%
Regularly taking deep breaths to focus on breathing	(40) 30.8%	(90) 69.2%
Sleeping	Less (30) 23.1%	Usual (100) 76.9%
Maintaining regular contacts with relatives and friends	(85) 65.5%	(45) 35.6%
Would you consider receiving support available	(100) 76.9%	(30) 23%
Engaging in usual spiritual practises as normal	(95) 73.1%	(35) 26.9%
Feelings of having excessive fear	(25) 19.2%	(115) 88.4%
Received psychological support from organisation	(50) 38.5%	(80) 61.5%

Fig 4.6 Coping Strategies

The levels of fear related to COVID 19 were high, registering 88.4% (n=115). Different coping strategies were used by respondents. 65.5% (n=85) of total participants relied on family support as a coping strategy, as defined by participants 'Maintaining regular contacts with relatives and friends'. Despite COVID 19 prevalence, 73.1% (n=95) continued to engage in their usual spiritual practices. 76.9% (n=100) of participants had regular sleeping patterns.

Taking regular breaks to focus on breathing was not a common coping strategy, as 69.2% (n=90) of respondents continued with their normal breathing patterns.

About 38% (n=50) of respondents acknowledged that they received psychological support from the organisation when they were ill.

A total of 100 participants, (76.9%) of respondents relied on getting factual information on COVID 19, as represented by those who relied on verified sources of information for COVID 19. The same number considered receiving support if available.

4.7 Summary

The study included more females (n=99) than males (n=31). COVID 19 risk perception was high. 80% (n=104) of the respondents felt that they were at high risk of getting COVID 19. Fear was more prevalent. 90.7% (n=118) of the respondents feared catching COVID 19 and 93.1% (n=121) feared infecting their families. Depression and anxiety were more prevalent compared to stress. Depression was at 68.5% (n=89), anxiety was at 66.8% (n=87) and stress

was at 26.2% (n=34). More females than males suffered symptoms of depression, anxiety and stress.

Relying on factual information from reliable sources and receiving support if available were the most common coping strategies, both at 76.9 % (n=100), followed by engaging in regular spiritual practices, at 73.1% (n=95) and family support, at 65.5% (n=85).

CHAPTER 5 DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The purpose of the cross sectional study survey was to assess the levels of depression, anxiety, stress and fear related to COVID 19 among health workers at the Avenues Clinic. The study also sought to identify coping strategies used by the health workers. This chapter includes a discussion of the findings of the study as related to literature review on fear, anxiety, depression and stress related to COVID 19.

5.2 Discussion of Findings

A discussion of findings follows. COVID 19 related risk perceptions, fear, psychological symptoms as represented by depression, anxiety and stress, and finally, coping strategies, are discussed.

5.2.1 Risk Perceptions Related to COVID 19

The ravages caused by COVID 19 has led to a worldwide health care and social emergence that requires an effective combined effort from everyone to reduce the contagion. The perception of the disease has relevant role in individual's psychological adjustment.

This study found out that the majority of participants agreed that they felt they were at a greater risk of getting infected with COVID 19. This is shown by the majority of participants, 80% (n=104) agreeing that they felt at risk of getting infected. However, despite the feelings of being at great risk, the majority of participant did not think of resigning from their jobs. Only 15.5 % (n= 20) thought of resigning. 71.5% (n=93) of total population disagreed that protective measures such as PPE are not effective against COVID 19.

An Iranian study that was conducted to assess risk perception of COVID 19 overall perceived danger and fear control processes found out that 56% of total participants were engaging in danger control processes and 43% in fear control processes (Jahangiry, Bakhtari & Sohrabi 2020). In this study conducted by the author, danger is perceived, as most participants, 80% agreed that they felt at great risk of getting infected and about 95% agreed that they felt that their families were at risk of getting infected because their families. However this study did not bring out the control processes that the participant may have used. Though we can postulate that danger control processes may have been used more as most of the participants, 64% did not think of resigning despite agreeing that they felt at greater risk of getting COVID 19. Also the majority disagreed that PPE was not effective against COVID 19, there for we can conclude that they embraced and believed that use of PPE was adequate in protecting them against COVID 19.

5.2.2 COVID 19 Related Fear

The study found out that fear was prevalent among health workers at the Avenues Clinic. The majority of participants feared being ill from COVID 19. This is shown by 43.8% (n=57) having responded that they were 'often' afraid of falling ill, 46.9% (n=61) were 'sometimes' afraid of falling ill from COVID 19 and only a small number 6.1% (n=8) were never afraid. The other fear factor that was mostly of concern was the fear of passing COVID 19 to family members. A total number of 93.1% (n=121) responded that they 'sometimes and 'often' were afraid they will pass COVID 19 to their family members.

Two studies done in India by Doshi etal (2020) and by SLjivo etal (2020) assessed COVID 19 related fear among health workers using fear rated scale and they reported prevalence of fear to be estimated around 45% and 44.8% respectively. Though in this study fear was not

rated using any fear rating scale, the response from participant suggest that fear was prevalent among health.

5.2.3 COVID 19 Related Depression, Anxiety and Stress

This study assessed the levels of depression, anxiety and stress among health workers at the Avenues Clinic due to COVID 19 pandemic the results showed that the most common mental health issue among the three was depression followed by anxiety and stress was less prevalent.

Stress was less prevalent with the highest number of participant being stress free. 73% of participants scored normal for stress compared to 31.5% and 33.1% for depression and anxiety. Only 20% of the participants had symptoms of mild to moderate stress. Similarly a study in China and in Spain revealed that depression and anxiety were more common as compared to stress. The Chinese study done by Lai and Wang (2019) revealed that depression was at 50.4% and anxiety was at 44.6%, while the Spanish study (Zhang et al, 2022) revealed that depression was at 29%, anxiety at 25.3% and stress at 22.5%. In contrary, in another Chinese study, anxiety was more common as compared to depression at 30.7% and 17.7% respectively (Wang, Pan & Wan, 2019).

The findings from this study on prevalence of depression and anxiety compares well to similar studies done elsewhere as shown by above comparisons. The findings indicate that truly COVID 19 had a psychological impact on health workers, thus symptoms of depression, at 68.5% of total participants, and anxiety, at 66.9%. Stress registered less prevalence at 26.2% of total participants.

The results from this study showed that females have higher levels of depression, anxiety and stress compared to their male counterparts. This is consistent with most findings from various studies around the world. The higher levels of depression, anxiety and stress in females than males can also be attributed to the fact that more females (n=99) than males (n=31) participated.

5.2.4 Strategies used by Health Workers for Coping with COVID 19

Mentally fit health workers are more capable and flexible in the face of any life threatening outbreak. Several coping strategies were used by health workers and found to be effective for them during COVID 19 pandemic. Most common coping strategies were reliance on COVID 19 verified information (76.9%), considering relying on available support (76.9%), engaging in regular spiritual practices (73.1%) and reliance on family support (65.5%).

The theoretical framework for this study described in the literature review section, the NSM, focuses on holistic care for clients. It is a theoretical framework that revolves around the structure of stressors or emotional response to these stressors and corresponding environment interventions. The NSM establishes a holistic approach which incorporates factors such as physiological, psychological sociocultural spiritual and developmental. As seen from the study results, in order to cope with COVID 19, health workers relied on the environmental factors. Relying on family support as a coping mechanism was used by approximately 65% of total participant thus the sociocultural factor. The spiritual factor is also seen as 73% of total participant continued to engage in spiritual practices during COVID 19 pandemic. Physiological needs were met as most participants acknowledged having received support from the organisation during their illness in form of medication and fruit baskets. 38% of the participant acknowledged having received psychological support during their illness. The

61.5% participants who answered ‘no’ to having received psychological support from the organisation were never ill from COVID 19. Most participant (76.6%) relied on getting factual information about COVID 19 pandemic. This coping mechanism was mostly used by participants. Knowledge on the pandemics helps to relieve anxiety depression and stress. 61.5% of the participants indicated that they would consider receiving psychological support if available, in form of continuous counselling sessions and emotional support. The prevalence of depression, anxiety and stress symptoms among participants explain why we have approximately half of total participant requiring continuous counselling sessions.

The results from this study compares well to studies done in 32 countries to investigate coping strategies used by health workers to avoid negative mental health effects during COVID 19. The results from the studies showed that 70% of participants relied on family support, as compared to 65.5% in this study, 54% relied on spiritual support (73.1% in this study) and 48% of total participants had normal sleep (76.9% in this study). The results from this study are fairly consistent with the results from other studies except that for participants who slept normal in this study the total is more than 50% more than from other studies.

5.3 Conclusion

The findings from the study showed that COVID 19 pandemic has an effect on health workers resulting in fear, depression, anxiety and stress. The levels of fear, depression, anxiety and, to a less extent, stress, were quite prevalent on health workers at the Avenues Clinic. Family support, reliance on verified sources, receiving available support and spiritual engagement were preferred coping strategies. Most participants indicated that they require ongoing psychological support in form of counselling. Fear was most prevalent. Most respondents were scared of being infected with COVID 19 and they also feared passing the

infection to their families. More females than males had symptoms of depression, anxiety and stress.

5.4 Recommendations

Specific Findings	**Recommendations**
High prevalence of depression and anxiety among participants	Management should reduce psychological effects of anxiety and depression through continuous programs for health workers on coping mechanisms which should be implemented together with framing of preventive measures and a psychological plan with compulsory occupational health surveillance
Fear of being infected with COVID 19 and infecting family	Health workers should get adequate knowledge regarding the pandemic. Management can organise workshops on infection control, use of PPE and handling of patients with suspected or confirmed COVID 19
Effects of taking extra shift because of staff shortages due to COVID 19	Health workers to develop personal coping mechanisms through constant education and taking regular vacation from work.
Lack of psychological support for health workers	Management should engage a psychologist and counsellors who can continuously assess health workers for signs of depression and anxiety and provide counselling

5.5 Communication and Dissemination

This study findings will be communicated to the stake holders at the Avenues Clinic and to the Africa University Community. The will also be kept in the Africa University Research database and library and at the Avenues Clinic School of Nursing Library. The study will also be published in an identified journal for peer review.

REFERENCES

Ahmadi, Z., & Sadeghi., T. (2017). Application of the Betty Neumann systems model in the nursing care of patients/clients with multiple sclerosis. Multiple Sclerosis Journal-Experimental, Translational and Clinical, 3(3), 2055217317726798.

Bryman, A., and Bell, (2003). Nursing Research and Methods, New York: Oxford University Press.

Burns, N., and Grooves, S., (2009). The Practise of Nursing research, Appraisal, Synthesis and Generation of evidence. (6th Ed.). St Louis: Saunders Elsvier.

Cabarkapa, S., Nadjidai, S.E., Murgier, J., (2020). The Psychological impact of COVID-19 and other viral epidemics on frontline healthcare workers and ways to address it: a rapid systematic review. Brain Behav: Immun Health.

Centre for Disease Control and Prevention Infection Control (2020). Novel Coronavirus 2019, Wuhan, China. https://www.cdc.gov/coronavirus/2019-nCov/infection-control.html Accessed on 20/10/21

Charkrabartty, S. N. (2013). Best Split- Half and Maximum Reliability. IOSR Journal of Research and Methods in Evaluation, 3 (1), 1-8

China Center for Disease Control and Prevention (2020). https://209ncov.chinacdc.cn/2019.nCov/ accessed on 20/10/21

Ghebreyesus, T.A. (2020). WHO Director-General's remarks at the media briefing on 2019-nCoV on 11 February 2020 Geneva: World Health Organization.https://www.who.int/emergencies/diseases/novel-coronavirus-2019/events-as-they-happen Accessed on 09/10 21

Gorbalenya, A.E., Baker, S.C., Baric, R.S., de Groot, R.J., Drosten, C., Gulyaeva, A.A., (2020). Severe acute respiratory syndrome-related coronavirus: the species and its viruses: a statement of the Coronavirus Study Group. bioRxiv: 2020.02.07.937862. https://www.biorxiv.org/content/10.1101/20 20.02.07.937862v1 . Accessed on 09/10/21

Hao, F., W. Tan, L., Jiang, L., Zhang, X., Zhao, Y., Zou, Y., … Luo, X. (2020). 'Do Psychiatric Patients Experience More Psychiatric Symptoms during COVID-19 Pandemic and Lockdown? A Case-Control Study with Service and Research Implications for Immune-Psychiatry', Brain, Behaviour, and Immunity sectional study. SAGE open medicine. https://doi.org/10. 1177/20503121211000919. Accessed on 6/11/21.

Kerime, B. (2017). Conceptual Framework for Nurses in the Use of the Neuman Systems Model on Caregivers of People Suffering by Schizophrenia. https://clinmedjournals.org/articles/ianhc/international-archives-of-nursing-and- Accessed 22-10 -2021

Holshue, M.L., Debolt, C., Lindquist, S., Lofy, K.M., Wiseman, J., Bruce, H., Spitters, C., Ericson, K. (2020).

La, J., Ma, S., Wang, J. (2019). Factors associated with mental health outcomes among health workers exposed to coronavirus disease 2019 JAMA Netw open 2020; 3:e203976. Doi:10 .1001/ JAMA Network open. 2020.3976

Maben, J. & Bridges, J. (2020). Covid-19: Supporting nurses' psychological and mental health. Journal of Clinical Nursing, 29(15-16). https://doi.org/10.1111/jocn.15307Accessed 23-10-2020

Ofori, A. A., Osarfo, J., Agbeno, E. K., Manu, D.O., & Amoh, E. (2021). Psychological impact of COVID 19 on Health workers in Ghana: A multicentre, cross-section

Perez-Fuentes, M., Molero Jurado, M., Orapesa Ruz, N. F., Martos Martinez, A., Simon Marquez, M., Herrera- Peco, I., & Gazquez Linares, J.J. (2020). Questionnaire on Perception of Threat from COVID 19. Journal of the Clinical medicine 9 (4), 1196. http:// doi.org/10.3390/ jcm9041196

Polit, D.F., and Beck, C. T. (2003). Business Research Methods. Lippincott: Williams & Wilkins.

Polit, D. F., and Hungler, B.P. (2008). Nursing Research: Principles and Methods (5th Edition.). J.B Lippincott Company: Philadelphia.

Rodrigueguez- Rey, R., Garrido-Henansaiz, H., Collado, S. (2020). Psychological impact and Associated Factors During the Initial Stages of The Coronavirus (COVID 19) Pandemic Among the General Population in Spain. Front Psychol.2020;11:1540. https://doi.org/10.3389/fpsyg.2020.01540. Accessed 22/4/22

Stuijfzand, S., Deforges, C., Sandoz, V. (2020). Psychological impact of an epidemic/pandemic on the mental health of healthcare professionals: a rapid review. BMC Public Health.

Wang, C., Pan, R., Wan X. (2020). Immediate Psychological Responses and Associated Factors during Initial stages of the COVID 19 Epidemic among the General Population in China. Int J Environ Res Public Health 2020; 17 (5): 1729. https://doi.org/10.3390/ijerph17051729. Accessed 22/4/22

Wu, Z., & Mcgoogan, J. M. (2020). Characteristics of and important lessons from the coronavirus disease 2019 outbreak in China: summary for report of 72314 cases from the Chinese Centre for Disease Control and Prevention. JAMA 323, 1239-1242. doi: 10.100/jama.2020.2648

Zimbabwe COVID- Coronavirus statistics – Worldometer. https://www.worldometers.info>zimbabwe accessed 27/10/21

APPENDICES

Appendix 1: GANNT Chart

Activity	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	April-21
Identification and approval of research topic						
Proposal writing						
Submission of proposal to AUREC						
Permission to undertake study						
Data collection						
Data entry and analysis						
Report writing						
Submission of dissertation						
Study report presentation						

Appendix 2: Budget

Item	Unit cost(USD)	Quantity	Total cost (USD)
Stationery and printing			$40
Cellphone calls			$15
Internet and bundles		$10	$60
Transport for Investigator			$80
Miscelleneous			$80
Total expenses			**$275**

Appendix 3: English Informed Consent Form

Research Title: An Evaluation of the Psychological Impact of COVID 19 on Health Workers at The Avenues Clinic

Investigator:

My name is Kolwanenkosini Katenjele. I am a student on the Bachelor of Science Degree in Nursing (Honors) Program at Africa University. I am conducting a study on Evaluation of the Psychological Impact of COVID 19 on Health workers at the Avenues Clinic. I am kindly requesting you to participate in this study by answering questions on the questionnaire provided.

Purpose of the Research.

The purpose of the study is to evaluate the effects of psychological impact of COVID 19 on health workers and also identify potential mitigating measures.

Participant:

The Study will be conducted on health workers at the Avenues Clinic. You have been chosen to Participate in this study because you are one of the workers and you will participate in the study with other 183 workers.

Procedure

If you decide to participate, you will answer a questionnaire with structured questions which may take up to 30 minutes to complete. Questions will be on fear, depression, anxiety related

to COVID 19 and coping strategies. You are free to ask for clarifications on any questions that you do not understand while answering the questionnaire.

Benefits

There are no rewards or monetary benefits in this study. No costs will be incurred by those participating in the research. There are no interventions or treatments that will be done. Honesty in answering questions is highly recommended. The study results will assist the health profession in improving coping strategies for psychological impact especially among health workers.

Risks and Discomfort.

There is no anticipated risk to participation in this study. No physical, mental or psychological or spiritual harm is associated with this study. Answers will be kept private and confidential. You are free not to answer any question that you are uncomfortable with.

Confidentiality

Information that is obtained in this study that can be identified with the participant will not be disclosed to anyone without their permission. Names and other forms of identification will not be asked for. The questionnaire to be used will be identified by a code instead of your name.

The consent form will be separated from the coded questionnaire and stored in a secure place. Access to records will be limited to the investigator and Africa University Research Ethics Committee.

Opportunities and Ask Questions

You may ask questions on any aspects that need clarification or further explanation before you sign this form. You may also ask any questions concerning the research project and also contact the investigator undersigned on this informed consent form by email or phone. Should you have questions regarding your rights as a participant in this research, or wish to report any concerns, you may contact the investigator or the Africa University Research Ethics Committee (AUREC) for the protection of Human Research Subjects at (020) 60075 or 60026. Email aurec@africau.edu

Freedom to Withdraw

You are free to decide not to participate in this study. You can also withdraw any time without harming your relationship with the investigator or Africa University.

Consent

Participation in this research is voluntary. By completing and returning the questionnaire your consent is implied. The information you provide is will only be used for the purpose of the study. You should keep this page for your records.

O I agree

O I do not agree

Signature…… Date……..

Witness…….

Signature of witness…… Date……..

Name of Investigator ……

Signature of investigator ……. Date……

Appendix 4: Shona Informed Consent

Musoro we tsvakurudzo: Ongororo yekukanganisa kwepfungwa kwe COVID 19 kuvashandi vehutano ku chibatara che The Avenues Clinic

Muongorori

Ini ndinonzi Kolwanenkosini Katenjele. Ndiri mudzidzi weBachelor of Science Degree mu Nursing (Honours) kuAfrica University. Ndirikuita wongororo yekukanganisa kwepfungwa kwe COVID 19 kuvashandi vehutano ku chibatara che The Avenues Clinic. Ndiri kukumbira nemutsa kuti mutore chikamu muchidzidzo ichi nekupindura mibvunzo pane gwaro remibvunzo yakapihwa.

Chinangwa Chetsvakurudzo

Chinangwa chetsvakurudzo iyi ndechekuongorora mhedzisiro yekukanganisa kwepfungwa kwe COVID 19 kuvashandi vehutano uye kuona matanho ekuderedzaangangoita.

Vatori Vechikamu

Tsvakurudzo ichaitwa kuvashandi vehutano pa chipatara che The Avenues Clinic. Wakasarudzwa kuti utore chikamu nekuti urimumwe wevashandi uye uchatora chikamu mutsvakurudzo iyi nevamwe vashandi zana nemakumi masere nevatatu.

Maitiro

Kana mukafunga kutora chikamu, muchapindura mibvunzo yakarongeka. Mibvunzo iyi inogona kukutorerai maminitsi makumi matatu kuti mupedze. Mibvunzo ichave pakutya, kushushikana, kusagadzikana kunechekuita ne COVID 19 uye nzira dzekugadzirisa.

Makasununguka kubvunza kuti mujekeserwe pane chero mibvunzo yamusinganzwisise pamunenge muchipindura mibvunzo yakapihwa.

Zvakanakira Wongororo Yedzidzo Iyi

Hakuna mubairo kana mubhadharo wemari uchawanika kuburikidza netsvakurudzo muchidzidzo chino. Hapana vanobhadhariswa kutora chikamu mutsvakurudzo iyi. Hakunazve kupindira kana kurapwa kunozoitwa. Munokurudzirwa kutendeseka mukupindura mibvunzo. Mhinduro dzechididzo dzichabatsira basa rehutano mukuvandudza nzira dzekugadzirisa zvepfungwa dze COVID 19 kunyanya pakati peva shandi vehutano.

Njodzi uye / kana Kusagadzikana

Hakuna njodzi dzinofungidzirwa kutora chikamu mutsvakurudzo yedzidzo iyi. Hapana kukuvara kana kukanganisika panyama, mupfungwa uye mumweya kwakabatana neiyi tsvakurudzo yedzidzo. Mhinduro dzichachengetedzwa pakavanzika. Kana mukanzwa kusagadzikana, makasununguka kusapindura mibvunzo yamusina kusununguka kupindura uye yamusina kusununguka nayo.

Kuvanzika

Ruzivo rwunowanikwa mutsvakiridzo rwunogona kuzivikanwa nemubatiri hauchazoburitswa kunaani zvake pasina mvumo yake. Mazita uye zvimwe zvingaita kuti munhu apinda muchikamu ichi azivikanwe haazobvunzwe. Gwaro remibvunzo rinoshandiswa richazozivikanwa nemakodhi panzvimbo pezita rako. Gwaro remvumo richaparadzaniswa negwaro remibvunzo yemakodhi uye richachengetwe munzvimbo yakavanzika. Kuwanika kwezvinyorwa kuchatenderwa muongorori wetsvakurudzo chete uye Africa University Research Ethics Committee.

Mikana ne Kubvunza Mibvunzo

Munogona kubvunza mibvunzo pane chero chinhu chinoda kujekeswa kana kutsanangudzwa musati masaina gwaro iri. Imi munogona zvakare kubvunza chero mibvunzo ine chekuita netsvakurudzo yedzidzo iyi, munogonazve kubata muongorori akanyorwa mune ino gwaro rekuzivisa ne kukumbira mvumo ne e-mail, kana runhare. Kana imi mukave muine mibvunzo maererano nekodzero dzenyu semutori wechikamu mutsvakurudzo iyi, kana muchida kumhan'ara chero zvinonetsa, munogona kubata muongorori kana iyo Africa University Research Ethics Committee (AUREC) yekuchengetedzwa kwevanhu vanotsigira tsvakurudzo vedzidzo pa (020) 60075 kana 60026. Email aurec@africau.edu

Rusununguko Rwekubuda Mutsvakurudzo Iyi

Imi makasununguka kusarudza kusatora chikamu mutsvakurudzo iyi. Imi munogona zvakare kubuda chero nguva pasina kukanganisa hukama hwenyu nemuongorori kana Africa University.

Mvumo

Kutora chikamu mutsvakurudzo uku ndekwekuzvidira, nekupindura mibvunzo uye kudzosa iri gwaro remibvunzo, mvumo yenyu yekutora chikamu inokurudzirwa. Ruzivo rwamunopa runongoshandiswa chete kuitira chinangwa chetsvakurudzo yedzidzo iyi. Imi munofanirwa kuchengeta iri gwaro kune enyu marekodhi.

◯ Ndinobvumirana nazvo

◯ Ini handibvumirane nazvo

Zita reanotora chikamu.....

Saina yeanotora chikamu …… Zuva.....

Zita rechapupu.....

Saina yechapupu..... Zuva.....

Zita

remuongorori.....

Sainayemuongorori..... Zuva.....

Appendix 5: English Research Instrument

RESEARCH INSTRUMENT

INSTRUMENT CODE…….. DATE…….

Study Title: An Evaluation of the Psychological impact of COVID 19 on Health Workers at The Avenues Clinic.

Instructions

1. Do not write your name on any of the pages
2. Answer as many questions as possible
3. Indicate answers by ticking in the boxes or writing in the spaces provided

Section A

Socio Demographic Data

1. What is your gender?
    a. O Male
    b. O Female
2. What is your age? ……
3. What is your marital status?
    a. O Single
    b. O Married
    c. O Widowed
4. Area of work
    a. O casualty
    b. O wards
    c. O Pharmacy

d. O accounts

e. O other

5. History of Chronic Illnesses

   a. O yes

   b. O No

   c. If yes Specify (optional)

6. Frequency of dealing with COVID 19 confirmed or suspected cases

   a. O High

   b. O Medium

   c. O Low

7. Status of training on use of PPE

   a. O Trained

   b. O Not Trained

8. Have you ever been ill from COVID 19?

   a. O Yes

   b. O NO

9. If yes for how long were you ill? .....

10. Did you cover extra shifts because of shortages that occurred because your colleagues were absent from work due to COVID 19

    a. O Yes

    b. O No

11. How did you cope with extra shifts?.....

12. Do you have any close relatives who suffered from COVID 19?

    a. O Yes

    b. O No

13. How did you cope with their illness?.....

Section B

COVID 19 Risk Perception

1. I feel that I am at a greater risk of getting infected with COVID 19 because of my work.
    a. O strongly disagree
    b. O disagree
    c. O Agree
    d. O strongly disagree

2. I think of resigning because of COVID 19 outbreak
    a. O strongly agree
    b. O disagree
    c. O agree
    d. O strongly agree
3. I feel that my family is at high risk of COVID 19 infection because of my work.
    a. O strongly disagree
    b. O disagree
    c. O Agree
    d. O Strongly Agree
4. Protective measures such as PPE are not effective in protecting me against COVID 19
    a. O strongly disagree
    b. O disagree
    c. O agree

d. O strongly Agree

5. My job is putting me at great risk for getting COVID 19

   a. O strongly disagree

   b. O disagree

   c. O agree

   d. O strongly agree

Section C

Levels of COVID 19 related Fear

1. I was afraid of falling ill with COVID 19
    a. Never
    b. Seldom
    c. Sometimes
    d. Often
2. I thought I would be unlikely to survive if I were to get COVID 19
    a. Never
    b. Seldom
    c. Sometimes
    d. Often
3. I was afraid I would pass the COVID 19 to my family members and friends
    a. Never
    b. Seldom
    c. Sometimes
    d. Often
4. I thought my family and friends were worried that they might get infected through me
    a. Never
    b. Seldom
    c. Sometimes
    d. Often
5. I was afraid and felt as if people avoided my family because of me

a. Never

b. Seldom

c. Sometimes

d. Often

Section D

Levels of COVID 19 related Stress, Anxiety and Depression

Number	How often has the following been true for you during the COVID 19 Pandemic?	Never 0	Seldom 1	Sometimes 2	Often 3	Always 4
1	I feel tired.					
2	I find it hard to relax					
3	I find it hard to make decisions					
4	My heart races and I find myself breathing rapidly					
5	I have trouble thinking clearly					
6	I eat too much or too little					
7	Thinking about COVID 19 makes me anxious					
8	I feel tense when I think about the COVID 19 pandemic					
9	I think about my problems over and over again					
10	I have sleeping problems such as trouble falling asleep, trouble staying asleep or waking up, nightmares					
11	I have trouble feeling hopeful					
12	I feel anxious about the COVID 19 pandemic					
13	I have back and neck problems or other chronic tension linked pain					
14	I use caffeine or nicotine more than usual					
15	I feel overwhelmed and helpless					
16	I feel tense when I think about the					

	COVID 19 pandemic					
17	I forget little things for example where I put my keys or people's names					
18	I have stomach upsets for example nausea, vomiting, diarrhoea and constipation					
19	I am irritable and easily annoyed					
20	I have mood swings and easily annoyed					
21	I find it hard to concentrate					
22	I have trouble feeling that life is meaningful					
23	I am withdrawn and feel distant and cut off from other people					
24	I use alcohol and or other drugs to try and help cope					
25	My work performance has declined and I have trouble completing things					

Section E

Strategies Used for Coping with COVID 19 Related Stress and Anxiety

1. Are you relying on verified sources for your updates about COVID 19
    a. O Yes
    b. O No
2. Are you regularly taking deep breaths and taking a break from work to focus on your breathing
    a. O Yes
    b. O No
3. Are you sleeping less or as usual?
    a. O Yes
    b. O No
4. Are you maintaining regular contact with friends and relatives?
    a. O Yes
    b. O No
5. Would you consider receiving support if it was available?
    a. O yes
    b. O no
6. Are you engaging in usual religious or spiritual practises as normal?
    a. O Yes
    b. O No
7. Do you feel that you are having excessive fear?
    a. O Yes
    b. O No

8. Did you receive any form of psychological support from the organisation during your illness?
    a. O Yes
    b. O No
9. What kind of support? ……..
10. What kind of support would you recommend? …….

Appendix 6: Shona Research Instrument

GWARO BVUNZURUDZO

KODHI YEGWARO……. ZUVA……..

Rugwaro rwetsvakurudzo yekuongorora kukanganisa kwepfungwa kwe COVID 19 kuvashandi vehutano kuchipatara che The Avenues Clinic.

Mirayidzo:

1. Musanyora renyu pamapepa aya
2. Yedzai kupindura mibvunzo yese
3. Ratidzai mhinduro dzakakodzera ne kumaka mumadenderedzwa kana mabhokisi akapihwa.

Chikamu chokutanga

Zvinechekuita Nehupenyu

1. Muri munhu rudzii
    a. O Munhurume
    b. O munhukadzi
2. Munemakore mangani ekuberekwa ……
3. Makaroora here kana kuroorwa
    a. O Handina kuroora kana kuroorwa
    b. O Ndakaroora kana kuroorwa
    c. O Ndakafirwa
4. Nzvimbo yebasa
    a. O kazhuwalithi
    b. O kumawodhi

c. O Kunotorwa mushonga

d. O Kwamabharani

e. O Kumwe

5. Mune chirwere chisingaperi chamurikurapwa

a. O Hongu

b. O Kwete

6. Kana mati hongu Tsanangurai ……..

7. Chimiro chekudzidziswa pakushandisa zvipfeko zvekuzvidzivirira nazvo COVID 19

a. O Hongu ndakadzidziswa

b. O Kwete andina kudzidziswa

Chikamu Chepiri

Maonero Enjodzi ye COVID 19

1. Ndinonzwa kuti ndiri panjodzi huru yekutapukirwa ne COVID 19 nekuda kwebas rangu

a. O Ndinoramba zvakasimba

b. O Ndinoramba

c. O Ndinobvuma

d. O Ndinobvuma Zvakasimba

2. Ndinofunga kusiya basa nekuda kwe COVID 19

a. O Ndinoramba zvakasimba

b. O Ndinoramba

c. O Ndinobvuma

d. O Ndinobvuma zvakasimba

3. Ndinonzwa kuti mhuri yangu iri panjodzi huru yekutapukirwa ne COVID 19 nekuda kwebasa rangu
    a. O Ndinoramba zvakanyanya
    b. O Ndinoramba
    c. O Ndinobvuma
    d. O Ndinobvuma Zvakanyanya
4. Zvipfeko zvekudzivirira hazvishande mukundidzivirira kubva ku COVID 19
    a. O Ndinoramba zvakanyanya
    b. O Ndinoramba
    c. O Ndinobvuma
    d. O Ndinobvuma zvakanyanya
5. Basa rangu ririkundiisa panjodi yekubatwa ne COVID 19
    a. O Ndinoramba zvakanyanya
    b. O Ndinoramba
    c. O N dinobvuma
    d. O Ndinobvuma zvakanyanya

Chikamu Chetatu

Mazinga eCOVID 19 Anechekuita Nekutya

1. Ndaitya kurwara ne COVID 19
    a. O Kana
    b. O Kashoma
    c. O Dzimwe dzenguva
    d. O Kazhinji

2. Ndaifunga kuti ndaizotadza kurarama kana ndazobatwa ne COVID 19

   a. O Kana

   b. O kashoma

   c. O Dzimwe nguva

   d. O Kazhinji

3. Ndaitya kuti ndaizopfuudza COVID kunhengo dzemuri yangu neshamwari

   a. O Kana

   b. O Kashoma

   c. O Dzimwe nguva

   d. O Kazhinji

4. Ndaifunga kuti mhuri yangu neshamwari vaityira kuti vaigona kutapukirwa ne COVID 19 kubudikidza neni

   a. O Kana

   b. O Kashoma

   c. O Dzimwe nguva

   d. O Kazhinji

5. Ndaitya uye ndaiitasekuti vanhu vanzvenga mhuri yangu nekuda kwangu

   a. O Kana

   b. O Kashoma

   c. O Dzimwe nguva

   d. O Kazhinji

Chikamu Chechina

Mazinga eCOVID Ane Chokuita Nekuoramwoyo, Kusagadzikana uye Kushushikana.

Nhamba	Kangani izvo zvinotevera zvave chokwadi kwauri panguva ye denda re COVID 19	Kana	Kashoma	Dzimwe nguva	Kashoma	Nguvadzose
		0	1	2	3	4
1	Ndinonzwa kuneta					
2	Ndinoona zvakaoma kuzorora					
3	Ndinoona zvakaoma kuita sarudzo					
4	Mwoyo wangu unomhanya uye ndinoona ndichifema nekukurumidza					
5	Ndinedambudziko kufunga zvakajeka					
6	Ndinodya zvishoma kana zvakanyanya					
7	Kufunga nezve COVID 19 kunoita kuti ndizvidye mwoyo					
8	Ndinonzwa kunetseka ndikafuna nezve denda re COVID 19					
9	Ndinofunga nezvematambudziko angu kakawanda					
10	Ndinedambudziko rekurara rakaita sekutadza kurara, kusahaya hope,					

	kutadza kumuka uye kurota hope dzinotyisa					
11	Ndinedambudziko rekuasave ne tariro					
12	Ndinonzwa kushushikana nezve denda re COVID 19					
13	Ninorwadziwa musana nemutsipa uye kumwe kushushikana kwakabatana kusingaperi kurwadziwa					
14	Ndinoshandisa zvinodhaka nezve kubuta kupfuura nguva dzose					
15	Ndinonzwa kuremerwa uye ndisina zvekuita					
16	Ndinonzwa kunetseka ndikafunga nezve denda re COVID 19					
17	Ndinokakanganwa zvinhu zvidiki semuenzaniso padinoisa makiyi angu kan mazita evanhu					
18	Ndinekakurwadziwa nemudumbu, semuenzaniso, kusvotwa, kurutsa,					

	manyoka, nekuzvimbirwa					
19	Ndinogumbuka zviri nyore					
20	Ndinonzva kugumbuka zvinyore					
21	Zvakandiwomera kuisa pfungwa dzangu					
22	Ndine dambudziko rekunzwa kuti hupenyu hune chinangwa					
23	Ndinonzva kuve kure uye kunge ndakaparadzaniswa nevanhu					
24	Ndinoshandisa doro uye zvimwe zvinodhaka kuyedza kudzikamisa pfungwa					
25	Kushanda kwangu kwadzikira uye ndinonetseka kupedza kuita basa					

Chikamu Chechishanu.

Nzira Dzinoshandiswa Kuteredza Kushushikana uye Kusagadzikana Kwepfungwa Nekuda Kwedenda re COVID 19

1. Urikuterera nhau dze COVID 19 kubva kuma sosi akavimbiswa here?
   a. O Hongu
   b. O Kwete
2. Unogara uchifema zvakanyanya here, uye unotora zororo kubva kubasa kuti unotarisa kufema kwako?
   a. O Hongu

b. O Kwete

3. Urikurara zvishoma here kana kuti sezvemazuva ese?

   a. O Hongu

   b. O Kwete

4. Urikuramba uchingoonana nehama neshamwari?

   a. O Hongu

   b. O Kwete

5. Ungade kuwana rubatsiro kana ruripo

   a. O Hongu

   b. O Kwete

6. Uchirikuenderera mberi kuita senguva dzese zvechitendero nezvekunamata kwako?

   a. O Hongu

   b. O Kwete

7. Unonzva here kuti urikutya zvakanyanya?

   a. O Hongu

   b.N O Kwete

8. Wakapihwa rutsigiro here kubva kuvakuru vebasa?

   a. O Hongu

   b. O Kwete

9. Rutsigiro rudzii? ……..

10. Nderupi rutsigiro rwaungakurudzira?.....

Appendix 7: Request to Carry Out Study at The Avenues Clinic

Africa University

P Bag 1320

Fairview Road

Mutare

21 January 2020

The Clinical Director

The Avenues Clinic

P O Box 4840

Harare

Dear Sir

RE: REQUEST FOR PERMISION TO CONDUCT RESEARCH STUDY ON AN EVALUATION OF THE PSYCHOLOGICAL IMPACT OF COVID 19 ON HEALTH WORKERS AT THE AVENUES CLINIC.

The above matter refers

I am a final year student from Africa University currently studying towards a Bachelor of Nursing Science (Honours). As part of the requirements of the program, I wish to conduct a study at The Avenues Clinic on An Evaluation of the Psychological Impact of COVID 19 on Health Workers at the Avenues Clinic.

I hereby seek permission to conduct the study.

Yours Faithfully,
Kolwanenkosini Katenjele

Appendix 8: Approval Letter to Carry out Study at The Avenues Clinic

Cnr. Mazowe Street & Baines Avenue • P.O. Box 4880, Harare, Zimbabwe
Tel: (+263) 8677 006175, (+263) 772 135 259, (+263) 772 127 452, (+263) 242 251 180-99
Facsimile: (+263) 242 705 872 • Email: info@avclin.co.zw
www.avenuesclinic.co.zw

THE AVENUES CLINIC

REF GIM/nm/02/001

4 February 2022

Africa University
P Bag 1320
Fairview Road
Mutare

Dear Matron Katenjele

RE: REQUEST TO CONDUCT RESEARCH STUDY ON AN EVALUATION OF THE PSYCHOLOGICAL IMPACT OF COVID 19 ON HEALTH WORKERS AT THE AVENUES CLINIC.

Thank you for your letter of 21 January 2022 in connection with the above project. We have recently established an Ethics Committee at The Avenues Clinic which makes it possible for research projects to be professionally reviewed and approved. Before the establishment of this Committee the hospital was not able to approve research projects.

Please feel free to submit your research proposal which I will be happy to guide through the review process by the Hospital Ethics Committee

Please do not hesitate to contact me over any matters you would like to raise.

Yours sincerely,

PROFESSOR GODFREY I MUGUTI
MS(Syd) FRCS (Edin) Hon. FRCS(Eng)
MEDICAL DIRECTOR

c.c. Chief Executive Officer
Principal Nursing Officer

Appendix 9: Approval Letter from AUREC

Investing in Africa's future

AFRICA UNIVERSITY RESEARCH ETHICS COMMITTEE (AUREC)

P.O. Box 1320 Mutare, Zimbabwe, Off Nyanga Road, Old Mutare-Tel (+263-20) 60075/60026/61611 Fax: (+263 20) 61785 website: www.africau.edu

Ref: AU2424/22 10 March, 2022

KOLWANENKOSINI KATENJELE
C/O CHANS
Africa University
Box 1320
MUTARE

RE: **AN EVALUATION OF THE PSYCHOLOGICAL IMPACT OF COVID 19 ON HEALTH WORKERS AT THE AVENUES CLINIC**

Thank you for the above titled proposal that you submitted to the Africa University Research Ethics Committee for review. Please be advised that AUREC has reviewed and approved your application to conduct the above research.

The approval is based on the following. a)
Research proposal

b) Data collection instruments
c) Informed consent guide

- **APPROVAL NUMBER** AUREC 2423/22

This number should be used on all correspondences, consent forms, and appropriate documents.

- **AUREC MEETING DATE** NA
- **APPROVAL DATE** March 10, 2022
- **EXPIRATION DATE** March 10, 2023
- **TYPE OF MEETING** Expedited

After the expiration date this research may only continue upon renewal. For purposes of renewal, a progress report on a standard AUREC form should be submitted a month before expiration date.

- **SERIOUS ADVERSE EVENTS** All serious problems having to do with subject safety must be reported to AUREC within 3 working days on standard AUREC form.
- **MODIFICATIONS** Prior AUREC approval is required before implementing any changes in the proposal (including changes in the consent documents)
- **TERMINATION OF STUDY** Upon termination of the study a report has to be submitted to AUREC.

Yours Faithfully

MARY CHINZOU –
ASSISTANT RESEARCH OFFICER: FOR CHAIRPERSON
AFRICA UNIVERSITY RESEARCH ETHICS COMMITTEE

Appendix 10: Approval Letter from Academic Supervisor

AFRICA UNIVERSITY

AU - CLINICAL RESEARCH CENTRE

A UNITED METHODIST - RELATED INSTITUTION

P.O. BOX 121, MUTARE - 132 HERBERT CHITEPO ST, MUTARE, ZIMBABWE - TEL: (+263-20)61804/61811 - FAX: (+263-20)61804 - E-MAIL: directorcrc@africau.edu

15 February 2022

To The AUREC Administrator

Dear Madam

Ref: Permission to submit to AUREC for Kolwanenkosini Katenjele

Registration Number: 191003

Programme: Post Basic Bachelor of Science in Nursing (Honours).

This letter serves to inform you that the above mentioned student has satisfied all the requirements of the faculty in developing the dissertation proposal and is ready for assessment.

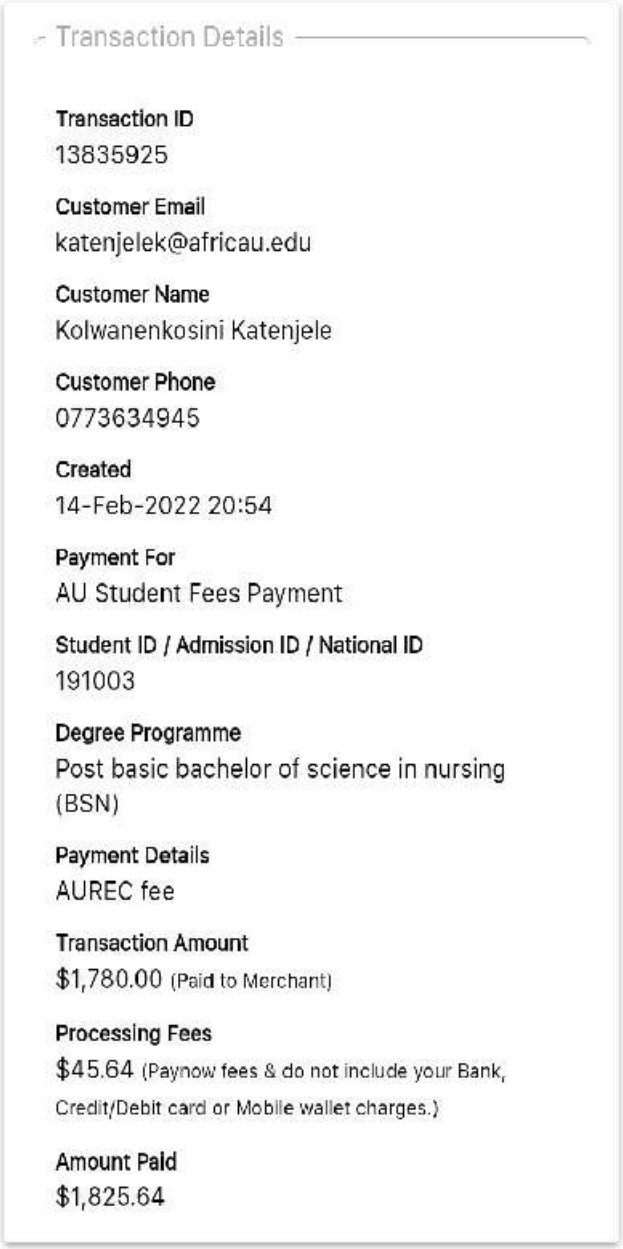
Your facilitation for ethical review of the proposal is greatly appreciated.

Sincerely,

Dr F. Mutseyekwa

Student's Supervisor

Appendix 11: AUREC Receipt



Transaction Details

Transaction ID
13835925

Customer Email
katenjelek@africau.edu

Customer Name
Kolwanenkosini Katenjele

Customer Phone
0773634945

Created
14-Feb-2022 20:54

Payment For
AU Student Fees Payment

Student ID / Admission ID / National ID
191003

Degree Programme
Post basic bachelor of science in nursing (BSN)

Payment Details
AUREC fee

Transaction Amount
$1,780.00 (Paid to Merchant)

Processing Fees
$45.64 (Paynow fees & do not include your Bank, Credit/Debit card or Mobile wallet charges.)

Amount Paid
$1,825.64