# AFRICA UNIVERSITY

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# KNOWLEDGE AND PRACTICES REGARDING COVID-19 INFECTION PREVENTION AMONG GENERAL HANDS AT MUTAWATAWA DISTRICT HOSPITAL FROM JANUARY 2020 TO DECEMBER 2021

BY

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# A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE BACHELOR OF HEALTH SERVICES MANAGEMENT DEGREE IN THE COLLEGE OF HEALTH, AGRICULTURE AND NATURAL SCIENCES, AFRICA UNIVERSITY

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## Abstract

The burden of the corona virus has continued to grow over the past two years in terms of deaths and socioeconomic constraints. Healthcare workers including general hands as frontline workers have high risk of getting infected by the corona virus as well as becoming a source of infection for patients and the community. The purpose of this study was to determine the knowledge and practices regarding COVID-19 infection prevention among general hands. A quantitative descriptive survey design was used in this study. A census sampling method was used to recruit 14 participants with an age range of 21 to 60 years. A structured intervieweradministered questionnaire with three sections namely, demographic information knowledge and practices was used for data collection. Statistical Package for Social Sciences analysed the data. The study results showed that many (71.4%) participants had worked for 1 to 20 years. The finding reflects that the hospital retained its general hands for a long duration, which enables them to understand and practise their duties including infection prevention and control practices. Almost all (92.9%) participants were trained on COVID-19 infection prevention by nurses (84.6%). Majority (85.7%) knew the definition of infection prevention and control practices. All participants cited that personal protective equipment (PPE) protects individuals from infections and injuries. Many (71.4%) correctly stated how COVID-19 infection is spread and its signs and symptoms (92.9%). Although majority (85.7%) participants knew that COVID-19 infection is highly transmissive, a small number (42.9%) knew how it is prevented. The hospital had policies on use of PPE (92.9%) and all participants were informed of these policies in particular use of PPE when cleaning rooms where patients with COVID-19 infection are nursed. Many (71.4%) participants correctly cited the practices that prevent the spread of COVID-19 infection. All participants were aware that a person after testing positive for COVID-19 infection stays for 14 days in isolation. However, only half (50%) participants refrained from handshaking their reason being that it is cultural to shake hands when greeting. A significant number (7.1%) removed their PPE when working in an isolation ward for COVID-19 infected patients. Furthermore, more than half (57.14%) took off their masks when speaking to other people. Most (71.4%) participants stated the hospital had adequate measures to prevent COVID-19 infection among its employees because 50% indicated that PPE and hand sanitizers were available and screening of COVID-19 infection was done by the entrance gate. General hands and other hospital staff needed to observe PPE protocols (35.7%), maintain social distance (35.7%), be trained and observe infection prevention and control practices (28.6%) to prevent COVID-19 infection among themselves. The findings revealed that most of the general hands have adequate knowledge regarding COVID-19 infection and its prevention. However a significant number of general hands do not exercise recommended practices to prevent the infection. Therefore, training of general hands on COVID-19 infection prevention should be conducted continuously emphasising on observing the WHO COVID -19 prevention protocols and avoiding hand shaking.

**Key terms:** Corona virus 19, general hand, infection, infection prevention and control, personal protective equipment.

# **Declaration page**

I declare that this project 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 degree.

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# **Copyright page**

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# Dedication

This project is dedicated to my late biological father Mr Paradzai Matiro who passed away when I was 9 years old as well as to my late uncle Mr Sydney Matiro who passed away when I was 10 years old as he always motivated me to put passion in everything I do. I also dedicate this project to my maternal grandmother Mrs Musowe who is my strength and source of motivation when I am giving up on life.

# List of Abbreviations

COVID-19 - Coronavirus 2019				
GHs	- General Hands			
WHO	- World Health Organisation			
MoHCC	- Ministry of Health and Child Care			
HCWs	- Healthcare workers			
PPE	- Personal Protective Equipment			
MDH	- Mutawatawa District Hospital			

#### **Definition of Terms**

COVID-19 (Corona virus 2019): COVID19 (Corona Virus 2019) is a highly transmissive infectious disease that is caused by a new corona virus called SARS-Cov-2 and this virus has not been previously identified in humans (WHO, 2022).

General hand: A general hand is a person who assists in the carrying out of duties and assignments that include building maintenance and yard work (Lawinsider, 2022). A general hand is any person who is employed to perform basic tasks in an organisation such as offloading stock from a delivery truck or cleaning the establishment (Lawinsider, 2022).

Prevention is defined as measures which are adopted or practiced on persons who have are not currently feeling the effects of a disease, with the intention of decreasing the risk that the disease will afflict them in the future (Gordon, 1983).

Healthcare worker: A health careworker is a person who delivers care services to a sick person either directly or indirectly (Joseph & Joseph, 2016).

Infection: Infection is the invasion of microorganisms that are not naturally present in the body such as viruses, bacteria, fungi and protozoa and their multiplication inside the host and they it can be clinical or subclinical (Davis, 2021)

Infection prevention and control: Infection prevention and control is a practical evidence based approach which prevents patients and health workers from being harmed by avoidable infection and as a result of antimicrobial resistance (WHO, 2021).

Personal protective equipment: Personal protective equipment is equipment that will protect the user against health or safety risks at work such as theatre caps, gloves, goggles, face shields, theatre gown, theatre shoes and face masks (Health and Safety Executive, 2022).

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## **CHAPTER 1: INTRODUCTION**

#### **1.1 Introduction**

As the coronavirus disease 2019 (COVID-19) continues to ravage the world with wave after wave, the virus continues to mutate becoming more virulent and taking with it lives of many people. The first severe respiratory infection was recorded in 2003 and in 2019 in Wuhan China in Hubei Province a pneumonia related disease (COVID-19) infection was recorded and it became the epicentre of the virus (Kiros, Hailay, Ward, Gesesew & Gebremeskel, 2021). The burden of the corona virus has continued to grow over the past two years in terms of deaths and other socioeconomic constraints. It goes without doubt that healthcare workers including general hands (GHs) as frontline workers have high risk of getting infected by the corona virus as well as becoming a source of infection for patients as well as the community. This chapter addressed the background of the study, problem statement, research questions, significance, delimitations and limitations of the study.

#### **1.2 Background of the study**

Globally the corona virus has caused 5 492 595 deaths and cumulative reported cases of 308 458 509 (WHO, 2021). Within these statistics the WHO estimates that between 80000 and 180000 healthcare workers have died from the onset of the pandemic across the world (WHO, 2021). Within the African region, over 10000 deaths have occurred among healthcare workers (WHO, 2020). In health institutions the COVID-19 infection affects healthcare workers (HCWs) including general hands (GHs). Makoni (Lancet, 2020) reported that on the 28<sup>th</sup> of July 2020 over 200 healthcare workers had been infected by the corona virus in Zimbabwe. Putting into consideration that healthcare services were already overstretched before the pandemic this has increased the shortage of health workforce within the country's health system.

According to WHO (2022) Mashonaland East Province has recorded 223000 cases and 5180 deaths to date due to COVID-19 infections, HCWs are also included in these statistics. GHs may be at the bottom of the organogram but their contribution to the delivery of care within hospitals is very important even at Mutawatawa District Hospital (MDH) where there is shortage of staff. Every department at the hospital has got general hands and sometimes it is only a single general hand who is in charge of cleaning and disinfection of equipment even assisting clinicians at times.

According to the Human Resources department at the hospital there has been a rise in the number of general hands who have fallen victims to the corona virus from year 2020 to 2021. There is need therefore, to pay special attention to the safety of healthcare workers including GHs to reduce the spread of the corona virus infection as well as deaths. The WHO recommends social distancing, hand washing using soap or use of alcohol based hand sanitizers and wearing of personal protective equipment (PPE) as a means to slow down spread of COVID-19 infection. WHO and the Ministry of Health and Child Care (MoHCC) Zimbabwe, have launched various online and physical training sessions to enhance the knowledge and improve practices of HCWs including general hands on preventive methods against the corona virus. Mutawatawa district hospital has held several physical training sessions for HCWs including GHs to equip them on the COVID 19 disease profile, its management including infection prevention and control practices.

Kiros et al. (2021) states that there is inadequate research on the status of knowledge and practices on prevention of the corona virus in Africa. Therefore this research serves the purpose to shade light on this important aspect as knowledge and practices of HCWs including GHs is indispensable to the prevention of the COVID-19 infection among the population and HCWs.

## **1.3 Problem Statement**

Table 1.1: Number of General Hands who contacted COVID-19 infection in 2020 and 2021at Mutawatawa District Hospital

Year	Number of General Hands at Mutawatawa District Hospital	Number of General Hands who contacted COVID-19 infection	Percentage of General Hands who contacted COVID-19 infection (%)
2020	14	2	14
2021	14	8	57
Total	14	10	71

Source: Mutawatawa district hospital Outpatient Department Non-paying patients register Daily Statistics for 2020 and 2021

The Ministry of Health and Child Care has been conducting various COVID-19 infection workshops to raise awareness on knowledge and practices on prevention of the corona virus among HCWs including GHs. The same sensitization workshops were also conducted at Mutawatawa District Hospital. In two years (2020 and 2021) the number of GHs at Mutawatawa District Hospital who suffered from COVID-19 infection increased from 2 (14%) in 2020 to 8 (57%) in 2021. During this two year period 10 (71%) GHs had COVID-19 infection. The statistics show a rise in COVID-19 infection among GHs at Mutawatawa district hospital. The statistics indicate that there may be a gap in knowledge of COVID-19 infection prevention among general hands which is increasing and requires attention. This is a public health concern hence, the investigator was prompted to determine the knowledge and practices regarding COVID-19 infection prevention among GHs working at Mutawatawa district hospital.

## **1.4 Research Objectives**

### 1.4.1 Broad Objective

The purpose of this study was to determine the knowledge and practices regarding COVID-19 infection prevention among general hands at Mutawatawa district hospital, Mashonaland East January to December 2021.

## 1.4.2 Specific Objectives

# The objectives for this study were as follows:

- To determine the knowledge level regarding COVID-19 infection prevention among GHs at Mutawatawa district hospital in 2021.
- To determine practices regarding COVID-19 infection prevention among GHs at Mutawatawa district hospital in 2021.

## **1.5 Research Questions**

- What is the knowledge level regarding COVID-19 infection prevention among GHs at Mutawatawa district hospital?
- **2.** What are the practices regarding COVID-19 infection prevention among GHs at Mutawatawa district hospital?

#### **1.6 Significance of the study**

Knowing the knowledge and practices with regard to prevention of COVID-19 infection among GHs of Mutawatawa district hospital was important to recognise gaps in training policies. Although there has been scarce researches in Africa in general with regard to these aspects these researches have mainly been focussed on clinicians and not all staff categories. With reference to Zimbabwe there seemed to be no research that has been conducted to assess level of knowledge and practices of COVID-19 infection prevention among GHs yet. This research was therefore a pivotal eye opener in shading light in this particular subject. Considering that

HCWs are crucial to controlling the corona virus. This research was able to prompt changes that would ensure that transmission of corona virus among healthcare workers was limited. The community of Maramba where Mutawatawa district hospital is located and UzumbaMarambaPfungwe in general was also hoped to benefit by copying the practices that they would observe healthcare workers including general hands practising to prevent transmission of the corona virus. It was hoped that the study results would be used as information in educating GHs and other HCWs on prevention of the coronavirus at the workplace. In the long-run the research could also be used for reference in conducting other researches on COVID-19 infection prevention among other categories of HCWs.

## 1.7 Delimitations of the study

The investigator conducted the study at only one hospital which is Mutawatawa district hospital and on 14 GHs. The study results were generalized. This might not be a true representation of all the hospital GHs in Zimbabwe.

The data collection tool that was used in this study was developed by the investigator who was novice in research and used for the first time. This therefore could mean that the tool was not correct and could not have collected accurate and detailed information which could have distorted the study results. The investigator used census sampling/ non-probability method to recruit the study participants. Census method is the method of statistical enumeration where all members of the population are studied. The disadvantages of using census method is that the researcher will have difficulties to enumerate all units of the population if large within the available time. .

# 1.8 Summary of the chapter

This chapter addressed the background of the study, problem statement, research objectives and research questions. Significance, delimitations and limitations of the study were also highlighted.

#### **CHAPTER 2: LITERATURE REVIEW**

### **2.1 Introduction**

The chapter addressed various literature that has been published prior to this research. The literature in relation to knowledge and practices of COVID-19 infection prevention is highlighted.

#### 2.2 Knowledge on prevention of COVID-19 infection among general hands

The knowledge and practices of HCWs including general hands is of paramount importance with respect to putting to a halt the spread of the COVID-19 virus as well as effective response to any case or suspected case. There seems to be a conflict with the current literature pertaining to these aspects in relation to prevention among healthcare providers in general (Nayaraja, Syed, Alshrari, Mohd & Rokeya, 2021). Olum et al., (2021) postulates that HCWs have positive knowledge and practice the safer infection prevention and control practices that were introduced by international organisations such as WHO as well as local authorities (Nayaraja et al., 2021). However a study carried out in Ethiopia by Asemahagn (2020) shows poor practices among HCWs in preventing COVID-19 infection (Nayaraja et al., 2021). In another study that was carried out in Saudi Arabia, showed good knowledge and understanding of prevention among HCWs, however this study was only carried out on clinicians that is doctors and nurses (Nayaraja et al., 2021). Due to this scenario the investigator strongly agreed that there was need to assess the general care professionals in terms of their expertise and practices on COVID-19 infection prevention.

Sourris et al. (2021) asserts that the corona virus spreads from human to human primarily through droplets that are released when one sneezes or coughs into the air as well as through contact with surfaces that have the droplets. The corona virus also has an incubation period of 2 to 14 days but this is still debatable among scientists. There are many signs and symptoms of

the corona virus infection and these have advanced and changed as the virus continues to mutate: dry cough, chest pains, runny nose, muscle pains and running stomach (Sourris et al, 2021). Lumala et al. (2021) claims that healthcare workers at all levels are at great risk of COVID-19 infection. Moreover there is a huge gap of knowledge between clinical and nonclinical staff, yet a Global Fund survey reported that in 24 African countries over 50% of hospitals recorded COVID-19 infections across all categories of staff between April and September 2020 (Lumala et al., 2021). Different knowledge levels between clinical and nonclinical staff has a great impact on prevention practices including vaccine uptake (Lumala et al., 2021). From the onset of the pandemic, infection prevention and control have taken the main focus across the world. Liu et al. (2020) states that recent developments have revealed that over 70% of COVID-19 infections occurred to administrative staff that is non-clinical hospital staff who include GHs. This therefore calls for improvement in the knowledge of these staff members in terms of proper use of PPE and protocols of quarantine and isolation zones.

#### 2.3 Practices regarding COVID-19 infection prevention among general hands

The WHO and other international organisations as well as local authorities have put forward guidelines of practices to prevent the spread of the corona virus: washing hands with soap or alcohol based sanitiser, putting on PPE (theatre gowns, surgical face masks, face shields, goggles, latex gloves, theatre shoes and cap), testing for COVID-19 infection for everyone before entrance into the hospital premises, social distancing, avoiding touching the nose and eyes (Sourris et al., 2021). The latest statistics show thousands of healthcare professionals getting infected with COVID-19 and a majority of them succumbing to death due to the virus (Lumala et al., 2021). Research done by Mulusew (2020) show that there is a link between knowledge and practices. If workers have knowledge then they are bound to put the knowledge into practice. In a contrasting manner the researcher also asserted that in the Sub-Saharan African region there is good knowledge but poor practices among HCWs due to shortage of

PPE, negligence and high workload (Mulusew, 2020). Another research done by Kumar et al. (2020) shows that misinformation regarding the proper use of PPE as well as its disposal after use is one of the major reasons for the increase in transmission in poor resource countries.

Lumala et al. (2021) is of the view that good knowledge and practices of prevention are effective tools in controlling the virus. He further states that assessing knowledge and practices of HCWs with respect to the pandemic should therefore be tools in identifying gaps of training policies. Therefore more investigations are needed to pinpoint suggestions to training guidelines as well as regulations to protect all categories of HCWs to improve their occupation exposure to the corona virus.

## 2.4 Summary of the chapter

Various researches were consulted in this chapter on knowledge and practices of prevention regarding COVID-19 infection prevention among HCWs as well as general hands. The next chapter addresses the research methodology.

#### **CHAPTER 3: RESEARCH METHODOLOGY**

#### **3.1 Introduction**

The chapter focused on research design, study setting, sample size, sampling procedure, data collection tools and pretesting of the instrument. It also addresses data collection procedure, data analysis, dissemination of the study results as well as ethical consideration.

#### 3.2 Research design

A quantitative approach was used in this study and the investigator used a descriptive survey research design to conduct this study. Descriptive research studies are those studies which describe the characteristics of a particular individual or of a group and ascertain whether variables are associated. (Marshall & Rossman, 1989). In this study the descriptive design described the knowledge and practices regarding COVID 19 infection prevention among general hands.

#### **3.3 Study setting**

The study was conducted at Mutawatawa district Hospital, which is a secondary level of care within the healthcare system. It is located in Mashonaland East province of the country and in UzumbaMarambaPfungwe district. The hospital currently only has 14 general hands employed

#### 3.4 Sample size

This study used census sampling method to recruit the study participants because the population under study was small. All (14) participants (general hands) were included in the study.

#### **3.5 Sampling procedure**

Census sampling method was used by the investigator to recruit all the 14 general hands to participate in the study. This is because the investigator wanted to access information from only the general hands subset which was very small.

#### **3.6 Data collection tools**

Interviewer- administered questionnaires were used to collect data from the participants. The research instrument consisted of 3 sections namely, demographic information, knowledge regarding COVID-19 infection and practices regarding COVID 19 infection prevention. The research instrument was translated into Shona, a local language to accommodate general hands who are not proficient in English. The questionnaires had both open and closed ended questions.

## **3.7 Pretesting of the instrument**

Pre-testing is a method of checking that questions work as intended and are understood by those participants who are likely to respond to them in order to minimize sampling errors and increase response rates (Pilot & Hungler, 2008). Pre-testing of the instrument was done at Maramba Rural Health Centre on 2 general hands. General hands working at Maramba Rural Health Centre have the same characteristics with those general hands working at Mutawatawa district Hospital. Ambiguous and unclear questions were either rephrased or deleted.

#### 3.8 Data collection procedure

Before collection of data, the participants signed informed consent forms to agree in participating in the study. Data was collected from the participants within 10 working days starting from 0900 to 1300 hours daily. The interviews were done in a private room and each interview took about 30 minutes per participant. The collected data will be kept in a locked cupboard to ensure safety and confidentiality. During the data collection process the WHO

COVID 19 infection prevention protocols were strictly observed by both the investigator and the participants. The investigator and all the participants wore face masks correctly covering their noses and mouths, maintained social distance of one meter apart and washed their hands frequently or sanitized their hands using alcohol based sanitizers.

#### 3.9 Data analysis

To analyse the data the investigator initially went through the raw data and observed any patterns and also ensured that the set objectives had been answered. In this study the collected data was analysed using the IBM Statistical Package for the Social Sciences (SPSS). The collected data was presented in form of frequency tables, pie charts and bar graphs, followed by comments.

### 3.10 Ethical considerations

Approval to conduct the study was sought from Africa University Research Ethical Committee (AUREC), a body that protects the participants under study. Permission to pre-test the research instrument at Maramba Rural Health Centre and to conduct the study at Mutawatawa district hospital was obtained from the District Medical Officer and the Acting District Health Administrator of UzumbaMarambaPfungwe district as well as the Provincial Medical Director of the Mashonaland East Province. Purpose and benefits of the study were explained to the participants who also gave informed consent. The participants were free to withdraw from the study any time they wished without victimization. Anonymity, privacy and confidentiality were observed throughout the study. No coercion was used in this study.

### **3.11 Summary of the chapter**

This chapter addressed the research design, study setting, study population, target population, sample size and sampling procedure. Data collection tools, pre-testing, data collection

procedure, methods of data analysis, data dissemination and ethical considerations were also highlighted. The next chapter addressed the data presentation and interpretation.

## **CHAPTER 4: DATA PRESENTATION, ANALYSIS AND INTERPRETATION**

# **4.1 Introduction**

The purpose of this study was to determine the knowledge and practices regarding COVID-19 infection prevention among general hands at Mutawatawa district hospital. This chapter addresses the presentation, analysis and interpretation of the data that was collected by the investigator using the interviewer administered questionnaires. The interviewer administered questionnaires were used on all the 14 GHs.

The data was analysed using the IBM Statistical Package for Social Sciences and presented by use of frequency tables and pie charts. An interpretation follows each pictorial presentation. In this chapter each section and question in the questionnaire will be presented pictorially.

# 4.2 Section A: Demographic data

Table 4.1: Gender distribution of GHs

N=14

Gender	distribution	Frequency	Percent	Valid Percent	Cumulative
of GHs					Percent
	Female	5	35.7	35.7	35.7
Valid	Male	9	64.3	64.3	100.0
	Total	14	100.0	100.0	

Table 4.1 illustrates that 5 (35.7%) participants were females and 9 (64.3) were males.

Table 4.2: Age distribution of GHs

N=14

Age dis	tribution of GHs	Frequency	Percent	Valid Percent	Cumulative
					Percent
	21 to 30 years	3	21.4	21.4	21.4
	31 to 40 years	7	50.0	50.0	71.4
Valid	41 to 50 years	2	14.3	14.3	85.7
	51 to 60 years	2	14.3	14.3	100.0
	Total	14	100.0	100.0	

Table 4.2 shows that the age range of the participants was 21 to 60 years with half 7 (50%) participants being categorised in the 31 to 40 years old which was the mode.

Table 4.3: Level of education of GHs

N=14

Level of GHs	f education of	Frequency	Percent	Valid Percent	Cumulative Percent
	Secondary	12	85.7	85.7	85.7
Valid	Tertiary	2	14.3	14.3	100.0
	Total	14	100.0	100.0	

Twelve (85.7%) participants attained secondary level of education and 2 (14.3%) did tertiary education level (Table 4.3).

# Table 4.4: Years working at the hospital

N=14

Years of working at the		Frequency	Percent	Valid Percent	Cumulative
hospital					Percent
	1 to 10 years	6	42.9	42.9	42.9
Valid	11 to 20 years	4	28.6	28.6	71.4
	21 to 30 years	1	7.1	7.1	78.6
	Less than a year	3	21.4	21.4	100.0
	Total	14	100.0	100.0	

Six (42.9%) participants had worked at the hospital within a range of 1 to 10 years and 4 (28.6%) for 11 to 20 years. Three (21.4%) had been working at the hospital for less than a year and 1 (7.1%) had worked for 21 to 30 years range (Table 4.4).

Table 4.5: Religion of GHs

N=14

Religion of GHs		Frequency	Percent	Valid Percent	Cumulative
					Percent
	Christianity	13	92.9	92.9	92.9
Valid	Traditional Beliefs	1	7.1	7.1	100.0
	Total	14	100.0	100.0	

Table 4.5 depicts that 13 (92.9%) participants were Christians and 1 (7.1%) believed in tradition.

# 4.3 Section B: Knowledge regarding COVID-19 infection prevention among GHs

Table 4.6: What is COVID-19 infection?

What is COVID-19 infection		Frequency	Percent	Valid Percent	Cumulative
					Percent
Valid	It is a highly transmissive	12	85.7	85.7	85.7
	virus	12	00.7	00.1	00.1
	It is a virus that kills	2	14.3	14.3	100.0
	Total	14	100.0	100.0	

Table 4.6 demonstrates that 12 (85.7%) participants agree that COVID-19 infection is a highly transmissive virus while only 2 (14.3%) stated that it is a virus that kills.

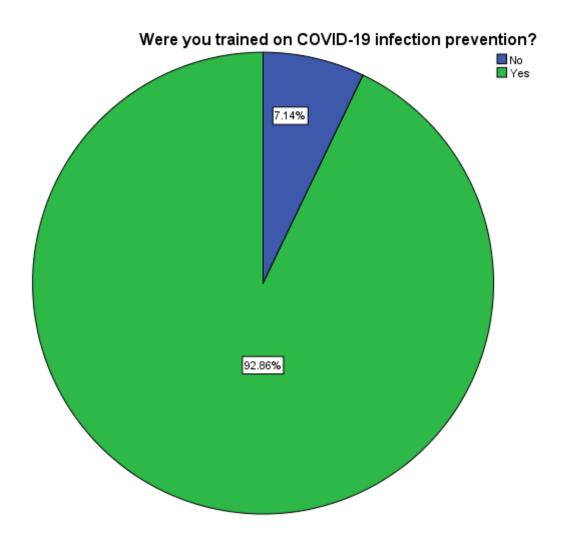


Figure 4.1: Trained on COVID-19 infection prevention?

Thirteen (92.86%) participants received training on COVID-19 infection prevention (Figure 4.1).

Table 4.7: Person who trained the GHs in COVID-19 infection prevention.

n=13

Person	who trained the GHs in	Frequency	Percent	Valid Percent	Cumulative
COVIE	0-19 infection prevention				Percent
	Nurses	11	84.6	84.6	84.6
Valid	Public/Private Organisation	2	15.4	15.4	100.0
	Total	14	100.0	100.0	

Table 4.7 illustrates that 11 (84.6%) received training from the nurses whilst 2 (15.4%) were trained by public/private organisations.

# Table 4.8: Definition of prevention and control

# N=14

Definition of prevention and control		Frequency	Percent	Valid Percent	Cumulative
					Percent
	Practices and procedures				
	that prevent and reduce	12	85.7	85.7	85.7
	transmission of	12	0011	00.1	00.1
	microorganisms				
Valid	Wearing gloves, apron and				
	gumboots when performing	2	7.1	7.1	92.9
	a task				
					100.0
	Total	14	100.0	100.0	

Table 4.8 reflects that 12 (85.7%) participants knew that infection prevention and control were practices and procedures that prevent and reduce transmission of microorganisms whilst only 2 (7.1%) did not know the definition.

Table 4.9: What is personal protective equipment?

N=14

What is personal protective equipment		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PPE to protect an individual from infections and injury	14	100.0	100.0	100.0

All 14 (100%) participants cited that PPE is equipment that protects an individual from infections and injury (Table 4.9).

#### How is COVID-19 infection spread?

#### N=14

Ten (71.4%) participants cited that COVID-19 infection is spread through coughing, sneezing, talking, singing, touching surfaces, equipment and furniture as well as touching body parts, clothes and linen contaminated with COVID-19 infection. Two (14.2%) mentioned coughing, sneezing, talking and singing only while the other 2 (14.2%) cited touching body parts, clothes and linen infected with COVID-19 virus.

#### Signs and symptoms of COVID-19 infection

#### N = 14

Thirteen (92.9%) participants stated that the signs and symptoms of COVID-19 infection were sore throat, body weakness, loss of appetite, loss of sense of smell, difficulty in breathing, unexplained cough and diarrhoea. Only 1 (7.1%) participant cited unexplained cough.

#### **Prevention of COVID-19 infection**

N = 14

Six (42.9%) participants mentioned that COVID-19 infection is prevented by avoiding mass gatherings, hugging and handshaking as well as being vaccinated against COVID-19 infection. The other eight (57.1%) cited that by only avoiding mass gatherings, hugging and handshaking can prevent COVID-19 infection.

## 4.4 Section C: Practices regarding COVID-19 infection prevention among

#### GHs

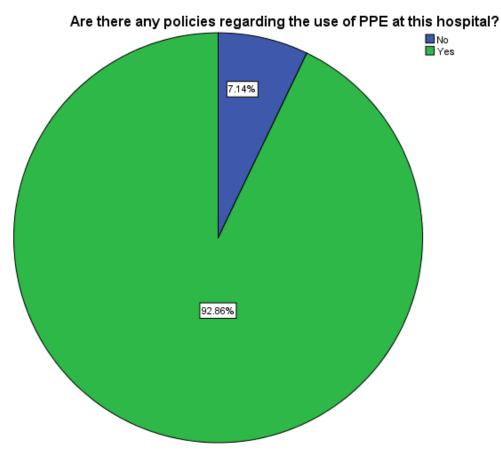


Figure 4.2: Are there any policies regarding the use of PPE at this hospital?

Figure 4.2 demonstrates that 13 (92.9%) participants agreed that there were policies at the hospital on use of PPE while 1 (7.1%) indicated that there were no policies regarding PPE.

## Are employees informed on policies regarding the use of personal protective equipment when cleaning rooms where patients with COVID-19 infection are nursed?

N=14

All the 14 (100%) participants stated that they are informed of policies regarding the use of personal protective equipment when cleaning rooms where patients with COVID-19 infection are nursed.

#### What to do to prevent spreading of COVID-19 infection to other people?

#### N=14

Regarding what to do to prevent spreading of COVID-19 infection to other people, ten (71.4%) participants cited wearing of personal protective equipment, maintaining social distancing, washing hands with soap frequently, sanitizing hands frequently, self-isolation if one tests positive for COVID-19 infection and staying at home if positive. Two (14.3%) stated wearing PPE and social distancing only while 1 (7.1%) mentioned self-isolation only.

#### What to do if you suspect that you have COVID-19 infection?

N = 14

All 14 (100%) stated that if they suspect that they have COVID-19 infection they will wear a face mask, maintain social distance and promptly seek medical attention.

#### What to do when you test positive for COVID-19 infection?

#### N=14

Nine (64.3%) participants cited that when they test positive for COVID-19 infection, they will self-isolate at home until they test negative as well as take medication as instructed my medical practitioners. The remaining five (35.7%) stated that they will self-isolate at home until they test negative only.

Table 4.10: Number of days a person stays in isolation after they test positive for COVID-19 infection.

N = 14

Days a person stays in	Frequency	Percent	Valid Percent	Cumulative Percent
isolation after testing				
positive for COVID-19				
infection				
Valid 14 days	14	100.0	100.0	100.0

Table 4.10 demonstrates that all 14 (100%) participants are aware that a person after testing positive for COVID-19 infection stays for 14 days in isolation.

Table 4.11: Have you refrained from handshaking since the beginning of the COVID-19 infection pandemic?

N = 14

Refrained from		Frequency	Percent	Valid Percent	Cumulative
handshaking since					Percent
the beginning of					
the COVID-19					
infection					
pandemic					
	No	7	50.0	50.0	50.0
Valid	Yes	7	50.0	50.0	100.0
	Total	14	100.0	100.0	

Table 4.11 reflects that 7 (50%) participants had refrained from handshaking since the beginning of the COVID-19 infection while the other 7 (50%) had not.

#### Explanation to why participants had not refrained from handshaking

#### N=7

All the 7 (100%) who stated that they did not refrain from handshaking indicated the reason as that it is cultural to shake hands when greeting. Those other 7 (100%) who refrained said it is because they used the fist for greeting in order to prevent the spread of COVID-19 infection.

Table 4.12: If working in the isolation ward for patient with COVID-19 infection do you remove your PPE when the weather is hot?

N=14

Removal of PPE		Frequency	Percent	Valid Percent	Cumulative Percent
when the	e weather is				
hot while	e working				
in isolati	on ward for				
COVID-	19 infected				
patients					
	No	13	92.9	92.9	92.9
Valid	Yes	1	7.1	7.1	100.0
	Total	14	100.0	100.0	

Thirteen (92.9%) participants said that they do not remove their PPE when they are working in an isolation ward for COVID-19 infected patients when the weather is hot and 1 (7.1%) removed their PPE (Table 4.12).

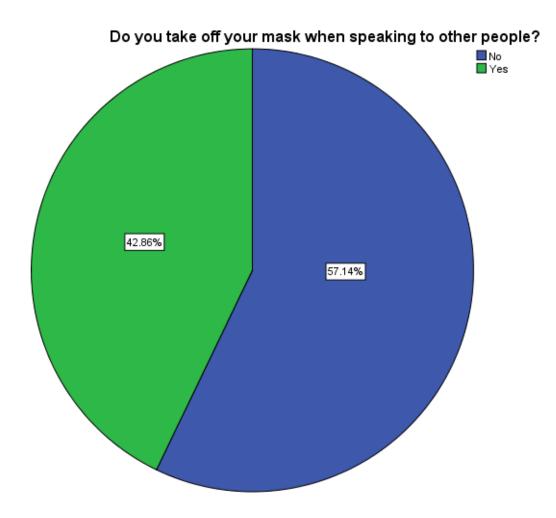


Figure 4.3: Do you take off your mask when speaking to other people?

N=14

Figure 4.3 shows that 8 (57.14%) participants took off their masks when speaking to other people whilst 6 (42.86%) did not.

Table 4.13: Social distance which one should maintain

Social distance one should maintain	Frequency	Percent	Valid Percent	Cumulative Percent	
Valid 1 metre	14	100.0	100.0	100.0	

N = 14

All the 14 (100%) participants mentioned that the social distance one should maintain was I metre (Table 4.13)

Table 4.14: The hospital has adequate measures to prevent COVID-19 infection among its employees?

N=14

The hospital has		Frequency	Percent	Valid Percent	Cumulative Percent	
adequate measures						
to prevent COVID-						
19 infection among						
its employees						
	No	4	28.6	28.6	28.6	
Valid	Yes	10	71.4	71.4	100.0	
	Total	14	100.0	100.0		

Table 4.14 demonstrates that 10 (71.4%) participants stated that the hospital had adequate measures to prevent COVID-19 infection among its employees.

# Explanation to stating that the hospital had adequate measures to prevent COVID-19 infection among its employees

N=10

Regarding reasons for stating that the hospital had adequate measures to prevent COVID-19 infection among its employees, 7 (50%) cited there is availability of PPE, issuing of hand sanitizers, mandatory screening of COVID-19 infection at the gate, 2 (14.3%) mentioned there is availability of PPE, issuing of hand sanitizers, mandatory screening of COVID-19 infection

at the hospital gate and 1 (7.1) stated that there is availability of PPE, issuing of hand sanitizers and it is mandatory to be screened for COVID-19 infection at the hospital gate.

Table 4.15: What general hands should do to prevent COVID-19 infection among themselves and other hospital staff

N = 14

What g	general hands should do to	Frequency	Percent	Valid Percent	Cumulative
prevent	COVID-19 infection among				Percent
themsel	ves and other hospital staff				
	Observation of PPE	5	35.7	35.7	35.7
	protocols	5	55.7	55.7	55.7
Valid	Social distancing	5	35.7	35.7	71.4
v and	Training and observing	4	28.6	28.6	100.0
	infection control practices	4	20.0	20.0	100.0
	Total	14	100.0	100.0	

Regarding what general hands should do to prevent COVID-19 infection among themselves and other hospital staff, the participants cited observing PPE protocols 5 (35.7%), maintaining social distance 5 (35.7%), training and observing infection prevention and control practices 4 (28.6%) (Table 14.15).

#### 4.5 Summary of the chapter

This chapter presented the collected data in form of frequency tables and pie charts followed by narratives. The next chapter will address the discussion, summary, implications and recommendations of the research study.

#### **CHAPTER 5: DISCUSSIONS, RECOMMENDATIONS AND CONCLUSION**

#### **5.1: Introduction**

This chapter highlights the data from the research results that were presented in the previous chapter in relation to demographic data, knowledge and practices with regards to COVID-19 infection prevention among general hands.

#### **5.2: Discussion**

#### **5.2.1: Demographic characteristics of participants**

The study results revealed that there were more males (64.3%) than females (35.7%) among general hands. This finding is a reflection of gender inequality in the employment of GHs at the hospital. With regard to level of education, majority (85.7%) GHs had ordinary level education whereas only 2 (14.3%) attained tertiary level education. All the GHs were literate indicating that they were likely to understand and comprehend health education on COVID-19 infection prevention. With reference to duration that the GHs had worked at the hospital, the results showed that nearly half 6 (42.9%) GHs had worked at the hospital for 1 to 10 years. The finding reflects that the GHs had a long stay at the hospital and might have been accustomed to the operations of the hospital as well as practices to prevent and control COVID-19 infection.

#### 5.2.2: Knowledge with regard to COVID-19 prevention among general hands

With regard to knowledge, the overall view was that all the GHs had adequate level of prevention knowledge with regard to COVID-19 infection. This is reflected in more than half 12 (85.7%) of the participants knowing what corona virus is and what it does. This is in total agreement with what Olum et al. (2021) postulates, putting forward that HCWs including GHs have positive knowledge with regard to prevention and control practices that were introduced by international organisations such as WHO as well as local authorities as shown in section 2.2 of this research project. Also this level of knowledge can be attributed to almost all (92.9%) GHs having received training with regard to COVID-19 infection prevention. This finding

confirms that HCWs including GHs are receiving trainings regarding COVID-19 infection. Furthermore, Lumala et al. (2021) states that knowledge of HCWs including GHs is assessed to identify gaps in training policies and trainings with regard to COVID-19 infection prevention being offered. The majority of the GHs (85.7%) were trained by nurses which showed collaboration between the clinicians and the non-clinical employees. This goes hand in hand with the study carried out in Saudi Arabia on doctors and nurses which reflected good knowledge and understanding of COVID-19 prevention among HCWs which can be attributed to nurses training more than half of the GHs on COVID-19 infection prevention (Nayaraja et al., 2021). However, Lumala at al. (2021) cite that there is a huge gap of knowledge between clinical and non-clinical staff. This finding may not be the case as revealed by the statistics that majority of GHs (85.7%) have full understanding of what the COVID-19 virus is and what it does.

The knowledge on infection prevention control and what PPE is prevalent among the GHs as majority (85.7%) of the participants understood what infection prevention and control is. All the (100%) participants knew the definition of PPE and what it comprised of. Regarding the spread and signs and symptoms of COVID-19 infection, majority (71.4%) agreed that spread of the corona virus occurs when someone gets in contact with the virus through another person or a surface with virus. This is in agreement with Souris et al. (2021) who stated that the corona virus spreads from human to human primarily through droplets that are released when one sneezes or coughs into the air as well as through contact with surfaces that have the droplets. Almost all (92.9%) participants were aware of all the symptoms of COVID-19 infection. This finding concurs with Sourris et al. (2021) who stated that the symptoms of COVID-19 infection were dry cough, chest pains and running stomach. These findings confirm that most general hands know what the COVID-19 infection is, how it is spread and its signs and symptoms.

With reference to how how COVID-19 infection is prevented there seemed to be an imbalance because only (57.1%) participants believed in avoiding mass gatherings as well as handshaking and few (42.9%) believed that there is need to add vaccination against the corona virus to the other practices. This finding shows that there is a significant number of GHs who still do not know how to prevent COVID-19 infection. Hence the need to continue educating GHs on measures to prevent the spread of COVID-19 infection.

**5.2.3: Practices with regards to COVID-19 prevention among general hands** With regards to practices of GHs to prevent COVID-19 infection, the finding reflects that there seems to be discrepancy between the knowledge that the GHs had and what they practised. The study results showed that almost all (92.9%) participants agreed that there were policies that guided use of PPE whilst all (100%) participants agreed that they are informed of these policies when working in the isolation ward for COVID-19 positive patients. This is self-contradicting as the employee who said that there were no policies on use of PPE within the hospital further said he/she was informed of availability of IPC policies at the same hospital. This finding confirms what Nayaraja et al. (2021) alluded to that there seems to be lack of understanding of what policies are.

With regard to practices to prevent the spread of COVID-19 infection, many (71.4%) participants mentioned the correct practices of wearing of personal protective equipment, maintaining social distancing, washing hands with soap frequently, sanitizing hands frequently, self-isolation if one tests positive for COVID-19 infection and staying at home if positive. Also all the (100%) GHs postulated that if they suspect that they had COVID-19 infection they would take the appropriate measures which are wearing a mask, social distancing and promptly seeking medical attention. Majority (64.3%) of the participants agreed that when they test positive for COVID-19 infection they self-isolate at home until they test negative and take medication as instructed. All (100%) participants were aware of the number of days that one

is supposed to stay in isolation when they test positive for COVID-19 infection. Although the number of days have been currently reduced by the MoHCC. These findings concur with Olum et al. (2021) who cited that HCWs including GHs practice the safer infection prevention and control practices introduced by WHO and local authorities.

Regarding refraining from handshaking there seemed to be a challenge among the participants as only half (50%) agreed to have refrained and the other half (50%) are still handshaking when greeting due to cultural practice beliefs, which could be the biggest loophole. On other practices such as taking off one's mask when working in the isolation ward when it is hot, almost all (92.9%) agreed that they did not while slightly above half (57.1%) concurred that they did not take off their mask when speaking to other people. All (100%) of the participants agreed to the 1 metre social distance. Mulesew (2020) research projected that in the Sub-Saharan African region there is good knowledge but poor practices among HCWs including GHs due to negligence and high workload as the GHs are few and sometimes they are forced to work in the isolation ward. These findings confirm what Asemahagn (2020) in Ethiopia found out in a study that there were poor practices among HCWs including GHs in preventing COVID-19 infection. Furthermore, Kumar et al. (2020) revealed misinformation regarding the proper use of PPE as a reason for increase in transmission of infections in poor resource countries as the GHs have enough knowledge but exercise negligence as postulated by Mulusew (2020).

Many (71.4%) participants agreed that the hospital had adequate measures to prevent COVID-19 infection among its employees due to availability of PPE, issuing of hand sanitizers and mandatory COVID-19 infection screening at the hospital entrance. All the participants understood what they needed to do to prevent COVID-19 infection among themselves and other staff such as training on infection prevention and control practices and observation of PPE protocols. These findings are in agreement with Souris at al. (2021) who stated that the WHO and other international organisations as well as local authorities have put forward guidelines of practices to prevent the spread of the corona virus: washing hands with soap or alcohol based sanitiser, putting on PPE (theatre gowns, surgical face masks, face shields, goggles, latex gloves, theatre shoes and cap), testing for COVID-19 infection for everyone before entrance into the hospital premises, social distancing and avoiding touching the nose and eyes. These findings show that the hospital is implementing COVID-19 infection prevention measures in line with the WHO COVID-19 prevention measures. In turn most of the GHs are practising these recommended measures though there is need to continue educating them on these practices to capture the few who still lag behind.

#### 5.3: Study Limitations

The investigator was a student and therefore was influenced by the University's academic timetable and calendar prompting the investigator to collect data in haste and fail to collect data in other hospitals. The collected data could therefore not be detailed and accurate which could have resulted in distortion of the research results.

#### 5.4: Study Summary

When one speaks of knowledge and practices with regard to COVID-19 infection it brings out two dimensions which are distinct but need to be unified for success of set objectives. Knowledge has to be put into practice for it to bring out a satisfying outcome. The purpose of this study was to determine the knowledge and practices regarding COVID-19 infection prevention among general hands at Mutawatawa district hospital. The investigator used a descriptive survey research design with a quantitative approach to carry out the study. Census sampling method was used to recruit all the 14 GHs in the study. Interviewer administered questionnaires were used to collect data and the data was analysed using IBM Statistical Package for the Social Sciences (SPSS). The collected data was presented in form of frequency tables, pie charts and bar graphs, followed by comments. The study results showed that were more males (64.3%) than females (35.7%) among the general hands, all were literate and nearly half (42.9%) had worked at the hospital for 1 to 10 years had. The finding indicates that the all the GHs were likely to understand and comprehend health education on COVID-19 infection prevention.

Almost all (92.9%) GHs had been trained on COVID-19 infection and its prevention by nurses (85.7%). The majority (85.7%) knew what the COVID-19 virus is and what it does. Almost all (92.9%) participants knew that the symptoms of COVID-19 infection were dry cough, chest pains and running stomach. Furthermore many (71.4%) correctly said COVID-19 infection was spread when someone gets in contact with the virus through another person or a surface with virus. All the 14 (100%) participants knew the definition of PPE and what it comprised. These findings confirm that most general hands know what the COVID-19 infection is, how it is spread and its signs and symptoms.

With reference to how COVID-19 infection is prevented, only (57.1%) participants believed in avoiding mass gatherings as well as handshaking and few (42.9%) believed in vaccination n against the corona virus. This finding shows that there is a significant number of GHs who still do not know how to prevent COVID-19 infection. These findings confirm that HCWs including GHs are receiving trainings regarding COVID-19 infection. However there is need to continue educating GHs on measures to prevent the spread of COVID-19 infection.

The study results showed that almost all (92.9%) participants knew there were policies that guided use of PPE and all (100%) participants agreed that they are informed of these policies when working in the isolation ward for COVID-19 positive patients.

Many (71.4%) participants mentioned the correct practices to prevent spread of COVID-19 were wearing of personal protective equipment, maintaining social distancing, washing hands with soap frequently, sanitizing hands frequently, self-isolation if one tests positive for

COVID-19 infection and staying at home if positive . Also all the 14 (100%) said that if they suspect that they had COVID-19 infection they would take the appropriate measures which are wearing a face mask, social distancing and promptly seeking medical attention. Furthermore, majority (64.3%) participants agreed that when they test positive for COVID-19 infection they self-isolate at home until they test negative and take medication as instructed. All the participants knew the number of days that one is supposed to stay in isolation when they test positive for COVID-19 infection. However half (50%) despite having been taught and discouraged still do handshaking when greeting due to cultural practice belief. Almost all (92.9%) participants did not take off their face masks when working in the isolation ward when it is hot and slightly above half (57.1%) did not take off their face masks when speaking to other people. All 14 (100%) participants agreed that social distance was 1 meter apart. These findings show that although the GHS know the recommended practices to prevent the COVID-19 infection there is a significant number that does not practise the recommended practices.

However, many (71.4%) participants said the hospital had adequate measures to prevent COVID-19 infection among its employees because of the following, availability of PPE, issuing of hand sanitizers and mandatory COVID-19 infection screening at the hospital entrance. All the participants knew that training on infection prevention and control practices and observation of PPE protocols would prevent COVID-19 infection among themselves and other staff. These findings show that the hospital and its staff including GHs practise the WHO COVID-19 infection prevention measures although health education needs to be continued on this subject to the GHs.

#### **5.5: Implications of the study**

The findings in this study have contributed to the understanding of the knowledge level and practices of GHs at Mutawatawa district hospital with regard to COVID-19 infection prevention. It has shade light in areas that might have seemed grey when the infection affected GHs.

GHs at the hospital have enough knowledge concerning COVID-19 infection as shown by over half 12 (85.7%) of the GHs at the hospital knowing what COVID-19 infection is and what it does. This therefore means the GHs are able to understand the practices that need to be done regarding COVID-19 infection prevention.

The GHs have knowledge as indicated by all (100%) of the GHs knowing that the social distance is 1 metre as well as knowing that they should always put on their PPE (92.9%). However few do not implement the recommended practices. This calls for the need to continue educating the GHs on COVID-19 infection and its prevention

Cultural practices and beliefs may be a strong barrier as handshaking is ethical when exchanging greetings and it is therefore an area of concern. This is indicated by many (50%) of the GHs saying that they had not refrained from handshaking as it is deemed unethical to not handshake when greeting. Education has to be strengthened to address the cultural barriers to COVID-19 infection prevention.

The study results showed that a significant number (7.1%) of participants took off their face masks when working in the isolation ward for COVID-19 infected patients when it is hot and many (42.9%) took off their face masks when speaking to other people. Therefore, GHs require strict monitoring with regards to PPE protocols around the hospital premise as at times they tend to relax and waiver on the workplace protocols when using PPE.

#### **5.6: Recommendations**

The following are the recommendations that emanated from the study:

- A significant number of GHs who still do not know how to prevent COVID-19 infection. Hence trainings and refresher courses need to to be conducted to continue educating GHs on measures that prevent the spread of COVID-19 infection emphasising on avoiding mass gatherings and hand shaking
- 2. The GHs should be taught and be encouraged to adopt the correct practices that prevent the spread of COVID-19 infection such as wearing of personal protective equipment, maintaining social distancing, washing hands with soap frequently, sanitizing hands frequently, self-isolation if one tests positive for COVID-19 infection and staying at home if positive.
- 3. The supervisors of GHs should conduct frequent support and supervisory rounds checking on performances of GHs to ensure that there is no discrepancy between the knowledge that the GHs have and what they practise regarding COVID-19 infection prevention. The GHs should not take off their face masks when working in the isolation ward and when speaking to other people.

#### 5.7: Suggestions for further study

This study only focussed on GHs at Mutawatawa district hospital which may not be a true representation of all district hospital or all hospitals in the healthcare system. There is need therefore, to carry further investigations in other hospitals to identify possible gaps and come up with recommendations to increase the knowledge and practices of GHs with regards to COVID-19 infection prevention.

#### **5.8: Dissemination of study results**

A report of the research results was given in form of a soft copy to Mutawatawa district hospital executive. A report of the study results was also given to general hands at a meeting for general hands at Mutawatawa district hospital. Soft copies of the research study results were also submitted to the department of Public Health and Nursing and the library at Africa University.

#### **5.9: Conclusion**

Knowledge and practices regarding COVID-19 infection prevention among general hands is imperative to curb the increase in corona virus infections among GHs working in hospital settings. Assessing level of knowledge and practices among GHs with regard to prevention of COVID-19 infection helps in preserving the lives of the GHs as well as other HCWs. It is also key in ensuring that the community is safe as hospitals are the epicentres of infection. There is therefore, need to continue educating the GHs on the importance of putting knowledge into practice especially in an environment which is meant to save the lives of people.

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## Appendices

## Appendix 1: Budget

Material	Purpose	Estimated cost	Estimated Cost
		\$(USD)	\$(RTGS)
Stationery	For use in collecting	\$40	\$8000
	data (administered		
	questionnaire) as well		
	as consent forms		
Transportation and	For ease of travel to	\$50	\$10000
logistics	research site that is		
	Mutawatawa district		
	Hospital and		
	Maramba Rural		
	Health Centre		
Telecommunication	For contacting	\$20	\$4000
	participants so they		
	can be accessible and		
	on time		
Food and	For effective	\$60	\$12000
refreshments	performance of		
	investigator as well as		
	the participants		
AUREC fee	A requirement for	\$15	\$1725(interbank rate)
	proposal acceptance		
Other	In emergency cases	\$25	\$5000
Total		\$210	\$40 725

NB: All other RTGS rates were calculated based on black market rate

## Appendix 2: Timeline (Gantt chart)

Activity	December 2021	January 2022	February 2022	March 2022	April 2022
Identification and application of research topics					
Proposal writing					
Permission to undertake study					
Data collection					
Data Entry and Analysis					
Report writing					
Submission of research project					

#### **Appendix 3: Informed Consent (English)**

#### INFORMED CONSENT FORM (ENGLISH)

My name is Tinotenda Matiro a student at Africa University pursuing a Bachelor's degree in Health Services Management (Honors). I am carrying out a study on knowledge and practices regarding Covid-19 infection prevention among general hands at Mutawatawa District Hospital.

#### Purpose of study

The purpose of the study is to determine the knowledge and practices regarding COVID-19 infection prevention among general hands at Mutawatawa district hospital. You were selected for this study because you are among the general hands working at Mutawatawa District Hospital.

#### Procedures and duration

If you decide to participate in the study you will be interviewed together with 13 other general hands who work at Mutawatawa district Hospital. The interview will take about 30 minutes.

#### Risks and discomforts

There are no reasonably foreseeable risks or discomforts to your participation in this study.

#### Benefits and/or compensation

There will be no monetary benefits for participating in this study. This study is going to help you and other general hands to understand knowledge and practices regarding COVID-19

infection prevention among general hands. Ultimately there will be reduction in number of general hands who get infected with COVID-19 infection at the hospital.

#### Confidentially

Information from this study will remain confidential; it will not be disclosed to anyone except to the Africa University and Mutawatawa district hospital management. Names and any other identification will not be asked for in the interview and will not appear on any of these forms thus ensuring anonymity and the answers that you give will be kept in locked cupboards.

#### Voluntary participation

Participation in this study is voluntary. If you decide not to participate in this study, your decision will not affect your future relationship with Africa University and Mutawatawa district hospital. If you choose not to participate, you are free to withdraw your consent and discontinue without penalty.

#### Offer to answer questions

Before you sign this form, please ask any questions on any aspect of this study that is unclear to you. You may take as much time as necessary to think it over.

#### Authorizations

If you have decided to participate in this study please sign this form in the space provided below as an indication that you have read and understood the information provided above and agreed to participate.

Name of participant (please print)

Signature of participant

You will be given a copy of this consent form to keep.

If you have any questions concerning this study or consent form beyond those answered by the investigator including questions about the research, your rights as a participant, or if you feel that you have been treated unfairly and would like to talk to someone other than the investigator, please feel free to contact the Africa University Research Ethics Committee on telephone (020) 60075/60026.

#### **Appendix 4: Informed Consent (Shona)**

#### TSAMBA YEBVUMIRANO

Zita rangu ndinonzi Tinotenda Matiro uye ndinodzidza paAfrica University apo pandirikuita zvidzidzo zvangu zveBachelor's degree in Health Services Management (Honors). Ndirikuita tsvakiridzo pamusoro peruzivo nenzira dzekudziviririra denda redzihwamupengo (COVID-19) pavashandi (general hands) vepaMutawatawa district Hospital.

#### Chinangwa chetsvakiridzo

Chinangwa chetsvakiridzo iyi ndechekuva neruzivo maringe neruzivo nenzira dzekudzivirira dzihwamupengo (COVID-19) pavashandi (general hands) vepaMutawatawa district Hospital. Masarudzwa kuti muve mukati metsvakiridzo iyi nekuda kwekuti muri umwe wevashandi (general hands) vepaMutawatawa district Hospital.

#### Zviitiko nenguva yazvichatora

Kana muchinge masarudza kuva mutsvakiridzo iyi muchabvunzwa mibvunzo pamwechete nevamwe vashandi (general hands) vanokwana kuita gumi nevatatu avo vanoshanda pamwechete nemi paMutawatawa district Hospital. Kubvunzwa kwemibvunzo kunogona kutora maminutes anokwana kuita makumi matatu.

Zvimhingamupinyi kana matambudziko amungasangane nawo mutsvakiridzo

Hapana matambudziko anotarisirwa kuti mungasangane nawo pachange pachiitwa tsvakiridzo iyi

#### Mubhadharo

Kana muchinge masarudza kuve mutsvakiridzo iyi hapana mubhadharo wemari wamunopihwa. Tsvakiridzo iyi ichabatsira kuti muve nenzwisiso yakadzika pamusoro

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peruzivo nenzira dzekudzivirira dzihwamupengo (COVID-19 infection) mukati mekushanda kwenyu. Mhedzisiro ndeyekuti huwandu hwevashandi (general hands) vanobatwa nedzihwamupengo hudzikire pachipatara.

#### Kuvanzika kwezvichawanikwa mutsvakiridzo

Mhinduro dzichawanikwa mutsvakiridzo iyi dzichangove pakati peAfrica University nevakuru veMutawatawa district Hospital. Mazita nerumwe ruzivo pamusoro pezvakavanzika zvenyu hazvisi kuzobvunzwa mutsvakiridzo iyi uye hamuzozviwani pamapepa emhinduro dzenyu. Mhinduro dzenyu dzichachengetedzwa pakachengetedzeka pasina anokwanisa kudzishandisa asina kodzero.

#### Kusarudza kuvemutsvakiridzo

Kuve mutsvakiridzo iyi ichave sarudzo yenyu. Kana mukasarudza kusava mutsvakiridzo iyi hazvina matambudziko azvingaunze pakati penyu neAfrica University kunyangwe neMutawatawa district Hospital. Mukasarudza kusava mutsvakiridzo munekodzero yekubuda nekugumira panzira mutsvakiridzo pasina mutongo.

Mukana wekubvunza mibvunzo

Musati mabvumirana nezvirimugwaro rino mune kodzero yekubvunza mibvunzo kana paine pamusina kunzwisisa kana pamungafunge kuti pangade kutsanangurwa. Mune kodzero yekutora nguva yenyu yakakwana muchinyatsotarisisa nekufunga.

#### Bvumirano

Kana muchinge masarudza kuve mutsvakiridzo iyi isai zita renyu nesignature yenyu pazasi apa kuratidza kuti maverenga mukanzwisisa zviri murugwaro iri uye murikubvuma kuve mutsvakiridzo

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Zita

Musi

#### Signature

Muchapihwa rimwe rerugwaro urwu kuti mugare narwo.

Kana muine mibvunzo pamusoro petsvakiridzo iyi kana tsamba yebvumirano ino ingadai isina kupindurwa na investigator kusanganisira mibvunzo pamusoro petsvakiridzo iyi, kodzero dzenyu, uye kana muchifunga kuti hamhuna kubatwa zvakanaka uye kuti mungada kutaura neumwe munhu asiri investigator makasunguka kutaura nebazi re Africa University Research Ethics Committee panumber dzephone dzinoti (020) 60075/60026.

#### **Appendix 5: Research Instrument (English)**

Topic: Knowledge and practices regarding COVID-19 infection prevention among general hands at Mutawatawa district hospital.

#### Instructions

- 1. Answer as many questions as possible
- 2. Please tick in the boxes and write in spaces provided
- 3. No name should appear on the forms

#### Section A

Demographic Data

#### 1 What is your gender?

- a. Male
- b. Female
- 2. What is your age?

#### 3. What is your highest level of education?

a.	Primary school level	
b.	Secondary level	
c.	Advanced level	
d.	Tertiary level	

4. For how long have you been working for this hospital?

#### 5 What is your religion?

a. Christianity

- b. Hindu
- c. Muslim
- d. Traditional beliefs
- e. Others (specify).....

#### Section B

Knowledge regarding COVID-19 infection prevention

#### 6. What is COVID-19 infection?

- a) It is a highly transmissive virus
- b) It is a virus that kills
- c) I do not know

#### 7. Were you trained on COVID-19 infection prevention?

- a. Yes
- b. No



- c. I don't know
- 8. If yes, who trained you?
  - a. Friend
  - b. Nurse aid

c. Nurses

d. Public/Private Organisation

#### 9. Define infection prevention and control

a. Practices and procedures that prevent and reduce transmission of

Microorganisms

- b. Wearing gloves, apron and gum boots when performing a task.
- c. I don't know
- 10. What is personal protective equipment?
  - a. Clothing or garments designed to protect a person from injuries
  - b. Protective clothing, gowns, helmets/head gear, goggles, gumboots/safety shoes, face masks and gloves to protect an individual from infections and injury.
  - c. I don't know







#### 11. How is COVID 19 infection spread?

	<ul> <li>a) Through coughing, sneezing, talking, singing</li> <li>b) Touching surfaces, equipment and furniture</li> <li>c) Touching body parts, clothes and linen with COVID 19 infection</li> <li>d) All the above</li> <li>e) I don't know</li> </ul>	
12 Wh	at are the symptom s of COVID 19 infection?	
a)	Sore throat	
b)	Body weakness	
c)	Loss of appetite	
d)	Loss of sense of smell	
e)	Difficulty in breathing	
f)	Unexplained cough	
g)	Diarrhoea	
h)	All the above	
13 Hov	w is COVID 19 infection prevented?	
a)	Avoid mass gatherings, hugging and hand shaking	
b)	By being vaccinated against COVID 19 infection	
c)	All the above	
d)	None of the above	

e) I do not know

Section C

Practices regarding COVID-19 infection prevention

14. Are there any policies regarding the use of personal protective equipment at this hospital?

- a) Yes
- b) No

15. Are employees informed on policies regarding the use of personal protective equipment when cleaning rooms where patients with COVID-19 infection are nursed?

- a) Yes
- b) No

16. What do you do to prevent spreading of COVID-19 infection to other people?

a) Wearing of personal protective equipment, social distancing

b) Maintaining social distancing, washing hands with soap frequently and sanitizing hands frequently

c) Self-isolation if one tests COVID 19 infection positive

- d) Stay at home
- e) All the above
- f) I don't know
- 17. What do you do if you suspect that you have COVID 19 Infection?
  - a) Wear a face mask, maintain social distance and promptly seek medical attention
  - b) Stay at home or come to work and continue working until the symptoms get worse
  - c) I do not know
  - 18. What do you do when you test positive for COVID-19 infection?



•			

a) Self-isolation at home until I test negative	
b) Take medication as instructed	
c) a and b above	
d) Go to work as soon as the symptoms improve	
19. How many days does a person stay in isolation after they test positive for C	ovid-19
infection?	
a) 14 days	

- b) 21 days
- c) one month
- b) I don't know

20. Have you refrained from handshaking since the beginning of the COVID-19 infection pandemic?

a) Yes	
b) No	
21) Explain answer given above	
22) If working in the isolation ward for patients with COVID-19 infection do you	remove
your PPE when the weather is hot?	

a) Yes

b) No

c) I don't know	
23) Do you take any off your mask when speaking to other people?	
a) Yes	
b) No	
c) I don't know	
24) What is the social distancing distance that one should maintain?	
a) 1 metre	
b) 2 metres	
c) 500 cm	
d) I don't know	
25) Do you feel that this hospital has adequate measures to prevent COVID	19 infection
among its employees?	
a) Yes	
b) No	
26) Explain answer given above	
27) State what general hands should do to prevent COVID 19 infection amo	ng themselves
and other hospital staff	
Thank you for participating in this study	

### **Appendix 6: Research instrument (Shona)**

Musoro wetsvakiridzo: Ruzivo nenzira dzekudzivirira kupararira kwedzihwamupengo (COVID-19) pavashandi (general hands) vepaMutawatawa district Hospital.

### Mirairo

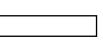
- 1. Pindurai mibvunzo yakawanda yamunokwanisa
- 2. Nyorai muzvikamu zvirikumberi kwemibvunzo iri murugwaro iri
- 3. Musaise zita parugwaro urwu

#### Chikamu Chekutanga

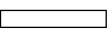
Ruzivo rwehuwandu hwevakapinda

- 1. Mungataura kuti muri mukadzi here kana kuti murume?
  - a) Murume b) Mukadzi
- Mune makore mangani?
   Makadzidza kusvika papi
  - a) Puraimari
  - b) Sekondari
  - c) Sekondari ye pamusoro
  - c) Koreji
- 4. Mave nemakore mangani muchishandira pane chino chipatara?
- 5. Chitendero chenyu ndechipi
  - a) Chikristu





		_
		- 1





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	b) Hindu	
	c) Muslim	
	d) Chivanhu	
	e) Imwe (Specify)	
Chikam	u chechipiri	
Ruzivo	pamusoro pekudzivirira dzihwamupengo (COVID-19)	
6.	Munonzwisisei nezita rekuti dzihwamupengo (COVID-19)	
	a) Chirwere chedzihwa chinopararira nekukurumidza	
	b) Chirwere chinouraya nekukurumidza	
	c) Handizivi	
7.	Makadzidziswa here nzira dzekudzivirira dzihwamupengo?	
	a) Hongu	
	b) Kwete	
	c) Handizivi	
8.	Kana makadzidzidziswa ndiani akakudzidzisai?	
	a) Neshamwari	
	b) Nurse Aide	
	c) Nurses	
	d) Public/Private Organisation	
9.	Mungatsanangure kuti kudzivirira hutachiona kuti husapararire zvinor	revei?
a)	) Inzira dzinogona kuitwa nevanhu kuti vadzivirire kupara twehutachiona	rira kwetupuka
b)	Kupfeka ma gloves, gumboots and apron kana uchiita basa	
c)	Handizivi	

10) Mungatsanangure kuti nhumbi dzekudzivirira kupararira kwehutachiona zvinorevei?

a) Inh	umbi dzakagadzirirwa kudzivirira kuti vanhu vasakuvare	
face	ective clothing, gowns, helmets/head gear, gogles, gumboots/safety s masks and gloves zvakagadzirirwa kudzivirira vanhu kuhutachiona kuvara	hoes,
C) Hane	dizivi	
11) Hutachiona	a hwedzihwamupengo hunopararira sei?	
a) Kukosor	a, kuhotsira, kutaura, kuimba	
b) Kubata n	zvimbo nemidziyo inehutachiona	
c) Kubata n	hengo dzemuviri, nhumbi nemicheka inehutachiona hwedzihwamupe	engo
d) Zvese zvi	ri pamusoro	
e) Handizivi		
12) Ndezvipi z	vinoratidza kuti munhu angave abatira hutachiona hwedzihwamupen	go
a) Kukaraka	twa pahuro	
b) Kupera m	uviri simba	
c) Kusanzwa	a kuda kudya	
d) Kutadza ł	kunzwa munhuwi wezvinhu [	
e) Kutadza k	sufema	
f) Kukosoro	kusingatsanangurike	
g) Kuita man	iyoka	
h) Zvese zvii	ri pamusoro	

13) Hutachiona hwedzihwamupengo hunodzivirirwa nenzira dzipi?	
a) Nekusaungana, kusambundirana uye kusakwazisana nemaoko	
b) Kubaiwa mishonga wekudzivirira hutachiona hwedzihwamupengo	
c) Zvese zviri pamusoro	
d) Hapana mhinduro pane dzese dziripamusoro	
e) Handizivi	

Chikamu chechitatu

Nzira dzekudzivirira kupararira kwedzihwamupengo

14) Kune mitemo here inotungamirira kushandishwa kwenhumbi dzekudzivirira kupararira kwehutachiona pano pachipatara?

a) Hongu	
b) Kwete	

15) Vashandi (general hands) vanoudzwa here pamusoro pemitemo inotungamirira kushandisa nhumbi dzekudzivirira kupararira kwehutachiona kana vachishandira kunenge kuchirapirwa varwere vane dzihwamupengo?

a)	Hongu	
b)	Kwete	

16) Ndedzipi nzira dzinoshandiswa kudzivirira kupararira kwedzihwamupengo?

a) Kupfeka nhumbi dzekudzivirira kupararira kwehutachiona

b) Kumira kure nekure, kugeza maoko nesipo uye ne sanitizer

c)	Kugara	muimba	yako	wega	kana	uchinge	wabatwa	nehutachiona	
	hwedzihv	vamupengo	)						
d)	Kugara k	umba							
e)	Dzese mł	ninduro dzi	ri pamus	soro					
f)	Handiziv	i							

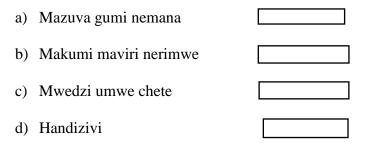
17) Ndezvipi zvamunoita kana mukafungidzira kuti mungave mabatira hutachiona hwedzihwamupengo

- a) Kupfeka chekuvhara pamuromo, kumira kure nevamwe uye nekutsvaga rubatsiro kumachiremba pachipatara
- b) Kugara kumba kana kuuya kubasa kusvika ndanyanyisa kurwara zvinooneka
- c) Handizivi

18) Munotora nzira dzipi kana muchinge mabatwa nehutachiona kwedzihwamupengo?

- a) Kuzviisa mumba musina vamwe vanhu kwemazuva gumi nemana kusvika ndaongororwa zvekare ndaonekwa kuti handisisina hutachiona.
- b) Kutora mishonga sezvandinenge ndaudzwa navana chiremba
- c) mhinduro yepa a nepa b
- d) Kuenda kubasa mushure mekunge zviratidziro zvehutachiona zvadzikira

19) Munhu anenge abatwa nehutachiona hwedzihwamupengo anogara pake ega kwenguva yakareba sei?



20) Muchiri kukwazisana nemaoko here kubva pakatanga denda redzihwamupengo?

a)	Hongu	
b)	Kwete	

21) Mungatsanangura mhinduro yamapa pamusoro apo.....

.....

22) Kana muchishandira kunorapirwa varwere vedzihwamupengo munobvisa here nhumbi dzekudzivirira kupararira kwehutachiona kana kuchipisa?

a)	Hongu	
b)	Kwete	
c)	Handizivi	

23) Munobvisa here chipfeko chenyu chekuvhara pamuromo kana muchitaura nevamwe vanhu?



24) Munhu anofanira kumira kure nemumwe munhu chinhambo chakakura sei?



25) Mumaonero enyu chipatara chino chirikutora nzira dzakakwana here kudzivirira kupararira kwehutachiona kwedzihwamupengo pakati pevashandi?

a) Ho	ongu			
c) K	wete	C		
26) Mungatsa	anangura mhinduro yenyu	yamapa pam	usoro apo	
27) Mungata	ura henyu dzimwe dzenz	ira dzingash	andiswa nevasha	andi vema general hands
kudzivirira k	upararira kwehutachiona l	nwedzihwam	upengo nevamw	e vashandi vepachipatara

Maitabasa nekusarudza kuve mutsvakiridzo iyi nekupindura mibvunzo.

## Appendix 7: Approval Letter to Conduct Study from Mutawatawa district hospital



# Appendix 8: Approval letter from the Provincial Medical Director of Mashonaland East

 Telephone: 24207/8, 24571 Telephone: 24207/8, 24571 Teleprophic Address: "PROVMED, MARONDERA" Fax: 23967	ZIMBABWE	Reference: MINISTRY OF HEALTH AND CHILD CARE PROVINCIAL MERICAL DIRECTOR (MARXIMALAND EAST). P.O.BOX 10 MARONBERA ZIMBABWE	
4 <sup>e</sup> March 2022 The District Medical Officer MUTAWATAWA DISTRICT HOSPITAL			
RE: PERMISSION TO CONDUCT A RESE STUDENT The above matter refers. Permission has been granted for the abo	ove-named to carry out a re	esearch on The Knowledge	
and Practices Regarding Covid -19 Pr District Hospital. May you please assist.	MIN, OF HEALTH & CHI PM.D. MASHOMALAN 0 7 MAR 202	ID CARE ID EAST	
DT P. F Matsvimbo ACTING PROVINCIAL MEDICAL DIRECTOR /sk	PO BOX 10, MARON - MABHONALANE VISTIVE MARCON Portune MARCON Portune	HOSPITAL BETON Brantes	

# **Appendix 9: Approval letter from AUREC**

	AFRICA Methodist Related Instantion
	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: AU2426/22 10 March, 2022
	TINOTENDA MARY MATIRO C/O CHANS Africa University Box 1320 MUTARE
	RE: KNOWLEDGE AND PRACTICES REGARDING COVID-19 INFECTION PREVENTION AMONG GENERAL HANDS AT MUTAWATAWA DISTRICT HOSPITAL FROM JANUARY 2020 TO DECEMBER 2021
	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 2426/22 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
	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.
	APPROVED
	Yours Faithfully
	MARY CHINZOU - ASSISTANT RESEARCH OFFICER: FOR CHAIRPERSON
	AFRICA UNIVERSITY RESEARCH ETHICS COMMITTEE