Covid-19 Household Screening: Challenges Experienced by Community Health Care Workers in Thulamela Municipality of Vhembe District, Limpopo Province

by

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DECLARATION

I, **Netshiheni Salthiel Fulufhedzani,** hereby declare that the mini-dissertation titled "***Covid-19 household screening: challenges experienced by community health care workers in Thulamela Municipality of Vhembe District, Limpopo Province***" submitted by me, has not been submitted previously for a degree at this or any other university, that it is my own work in design and in execution, and that all the reference material contained herein has been duly acknowledged.

Signature of student:

Date: 08/03/2023

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LIST OF ABBREVIATIONS AND ACRONYMS

CDC: Center for Disease Control and Prevention

CHWs: Community Health Care Workers

CP: Cerebral Palsy

Covid-19: Coronavirus Disease of 2019

HIV: Human Immunodeficiency Virus

IDP: Integrated Development Planning

IPC: Infection Prevention and Control

PHC: Primary Health Care

PPE: Personal Protective Equipment

SARSCOV-2: Severe Acute Respiratory Syndrome Coronavirus 2

WHO: World Health Organisation

ABSTRACT

During the 2019 Novel Coronavirus (COVID-19) outbreak in South Africa, community healthcare workers were working as foot soldiers to screen community members for COVID-19 in the community members' households. The current study investigated the challenges experienced by community healthcare workers during COVID-19 household screening, with a distinct focus on the Thulamela Municipality. The study adopted the qualitative approach, embedded within the explorative and descriptive research designs, to explore the challenges experienced by community healthcare workers during COVID-19 household screening. The population were all community healthcare workers working within communities, as deployed by primary healthcare facilities in the Vhembe District. This study adopted purposive sampling to select both participants and two PHC facilities located in Thulamela Municipality. A face-to-face in-depth, unstructured interview was employed as a data collection method. Data collection was discontinued after data saturation, which occurred after interviewing 17 participants. The data collection instrument was pre-tested using three community healthcare workers. Furthermore, data was analysed using the thematic data analysis approach. The findings revealed that the challenges experienced by the community healthcare workers within communities vary, based on context. Lack of knowledge and experience regarding COVID-19 deepened the challenges that were experienced by community workers during the COVID-19 household screening, apart from the socio-economic and cultural backgrounds. Further research is required to enhance understanding of the challenges experienced during the COVID-19 household screening, to formulate some strategies to deal with future health crises, such as COVID-19.

Keywords: *challenges, Community Healthcare Workers, COVID-19, experiences, household screening*

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CHAPTER ONE
INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 INTRODUCTION

The COVID-19 pandemic is considered one of the deadliest adversities of the century and the most noteworthy challenge that mankind has confronted since the 2nd World War (Chakraborty & Maity, 2020). The COVID-19 pandemic affected healthcare workers (HCWs henceforth) both physically and mentally. Healthcare workers were more susceptible to COVID-19 infection than the ordinary population due to their regular engagement with members of the community, some of whom were infected (Wingfield, 2020). In the South African context, CHWs were deployed to communities to conduct household screening. Drawing from this, this study investigates challenges experienced by CHWs during the COVID-19 household screening.

As of 23rd of August 2021, there were 212,598,874 affirmed cases and 4,444,709 deaths, due to the COVID-19 pandemic. These led to tragic loss of human life around the world and presented an uncommon challenge to public health (WHO, 2020). Coronavirus, abbreviated as COVID-19, was first identified in Wuhan City in December 2019, after which the illness spread throughout the Hubei Province and other parts of China. CHWs were amongst the high-risk teams to contract this disease. Shaukat, Ali and Razzak (2020) concur, and affirm that 3387 CHWs were infected by COVID-19 and 22 (0.6%) died because of the disease.

COVID-19 shifted the important work carried out by healthcare workers. Despite the gratitude these workers often received, they remained exposed to many risks. There were many threats that they faced around the world, including the added challenges brought about by COVID-19 (Liu, Luo, Haase, Guo, Wang, Liu & Yang, 2020). Spoorthy, Pratapa and Mahant (2020) concur and state that CHWs experienced psychological problems due to COVID-19. Spoorthy et al., (2020) further state that the reasons for such adverse effects ranged from excessive workload and long working hours, inadequate personal protective equipment, over-enthusiastic media news and feelings of inadequate support.

A similar study was conducted in Wuhan by Liu et al (2020); it revealed that frontline CHWs who had no infectious disease expertise had additional challenges when they adjusted to an entirely new working environment in this stressful situation. In addition to providing care to patients, wearing PPEs for long hours also led to physical distress, especially for nurses who had to stay in the isolation wards for entire shifts. Intensive work for long hours made health-care providers at risk of decreased immunity. When CHWs became sick, there was a concern regarding their ability to curb the outbreak and treat patients.

The study conducted by Powell-Jackson, King, Makungu, Spieker, Woodd, Risha and Goodman (2020) in Tanzania revealed that inadequate infection prevention and control made health workers more likely to contract COVID-19 from their patients. In the same study, it was revealed that the same health workers were needed as front-line staff to deal with seriously ill patients, as cases mounted. Therefore, having significant numbers of CHWs sick or self-isolating could threatened the operation of the health system at a crucial time. It was further revealed that inadequate infection prevention and control could put patients and caregivers at risk of contracting COVID-19 when they visited health facilities.

Chersich, Gray, Fairlie, Eichbaum, Mayhew, Allwood and Haghighi (2020) report that many countries in Africa stepped up their preparedness for COVID-19. However, assessments by WHO (2020) pointed to substantial limitations in response capacity, as there were major shortages of human resources, critical care beds and laboratory capacity. Without international support, any reserves of PPEs in hospitals were likely to be rapidly depleted in African countries, and new supplies would be very difficult to secure. Also, it was expected that, water supplies for hand washing might be limited or unavailable in some parts of Africa. Stiegler and Bouchard (2020) report that in South Africa, CHWs lacked training to fight against COVID-19 and enough protective equipment to use when on duty. Apart from medical equipment, South African rural communities faces challenges such as lack of water, proper housing, and long distances to access healthcare facilities.

In 2018, the South African National Department of Health adopted a policy framework and strategy for ward-based primary outreach teams. The outreach teams included the CHWs who sought to lower inequities in access to basic health administrations, mainly in under-served or avoided defenseless populations (National Department of Health, 2018 & WHO, 2018). The policy framework and strategy for CHWs had the following purposes within the programmes which needed to be accomplished:

- Expand healthcare beyond the individual patient and give administrations to individuals in their homes.
- Expand healthcare to inaccessible, rural, and minimal populations, who discover it hard to get entry to the services since of their physical area or social position.
- Amplify healthcare to individuals who are destitute, mishandles substances, interact in sex work or are on the margins of society in different approaches.
- Extend the care focus beyond health prerequisites and diseases.
- Expand participation with and acknowledgement of the CHWs by communities and clinics workers

A study conducted in Limpopo, South Africa by Jobson, Naidoo, Matlakala, Marincowitz, Railton, McIntyre, and Peters (2020) reported that -despite their importance to the health system- the effectiveness of CHWs programmes in South Africa is limited by a range of challenges. These challenges include difficult working environments, poor integration into the formal health system, low and inconsistent payment, fear of human immunodeficiency virus (HIV)-related stigma, poor leadership and planning, inadequate resources and equipment, and lack of opportunities for career advancement.

Bhaumik, Moola, Tyagi, Nambiar and Kakoti (2020) argue that CHWs roles and tasks transformed extensively during pandemics. Clear guidance, training for changed roles and description of what defines essential activities were required. The most common additional activities during pandemics were community awareness, and engagement (including for countering stigma) and contact tracing. CHWs were reported to be involved in all aspects of contact tracing; this was reported to affect routine service delivery. Ballard, Bancroft, Nesbit, Johnson, Holeman, Foth and Raghavan (2020) add that community healthcare workers play an important role during COVID-19 pandemic. They educate the community about COVID-19; measures they should take to reduce transmission, conduct screening, and refer suspected cases for testing. To date, there is a lack of adequate research done on the challenges experienced by CHWs, particularly in the Thulamela Municipality. Therefore, it was significant to conduct this study on the challenges experienced by CHWs during COVID-19 in Vhembe District.

1.2 PROBLEM STATEMENT

To help deal with the COVID-19 pandemic, the South African National Department of Health mobilised CHWs to assist with the COVID-19 screening of community members. The current researcher observed with concern in one of the villages in Thulamela Municipality of Vhembe District that CHWs encountered some challenges during door-to-door COVID-19 screening. According to the Health-e News (18th August 2020), CHWs who have been delegated at one of the villages in Thulamela Municipality in Limpopo faced harsh working conditions, with uncertain futures, during the COVID-19 pandemic. These included being assaulted and threatened by community members during their duty of household screening for COVID-19 (Zali, 2020). It was against this background that the researcher sought to investigate the challenges experienced by community healthcare workers during COVID-19 household screening in Thulamela Municipality of Vhembe District Limpopo.

1.3 RATIONALE OF THE STUDY

The researcher was inspired to conduct this study due to lack of similar studies in the Thulamela Municipality of Vhembe District in Limpopo Province. There is no known study which has been conducted on perceived challenges experienced by CHWs during COVID-19 household screening. During the COVID-19 outbreak, CHWs are recognised as foot frontline soldiers, fighting against the pandemic. This puts them at greater risk of infection. Thus, this study was conducted to provide evidence-based information regarding the challenges experienced by CHWs during COVID-19 household screening.

1.4 SIGNIFICANCE OF THE STUDY

The findings of this study may provide valuable information on challenges experienced by CHWs during COVID-19 household screening. The Department of Health may gain a deep understanding of the challenges that community healthcare workers are exposed to during COVID-19. Hence, they may use the study findings to improve their policies and guidelines on the safety of CHWs. The findings of this study may also add to the body of knowledge about the COVID-19 pandemic. Finally, CHWs may benefit by sharing their experiences with the researcher during the interviews and may feel emotionally relieved.

1.5 PURPOSE OF THE STUDY

The purpose of this study was to investigate the challenges experienced by community healthcare workers (CHWs) amid the COVID-19 outbreak household screening in the Thulamela Municipality of Vhembe District in Limpopo Province.

1.5.1 Objectives

The study had the following objectives:

- To explore the challenges of CHWs during COVID-19 household screening in Thulamela Municipality.
- To describe the challenges of CHWs during COVID-19 household screening in Thulamela Municipality.

1.6 DEFINITION OF CONCEPTS

According to Esterhuyse, (2003:1), the definition of operational terms is significant for any study, as it enables the researcher to explore the various distinctions of concepts and avoid "dogmatic and one-sided interpretations". The following concepts serve as a base for this study.

1.6.1 Community healthcare workers – It is an umbrella term portraying open wellbeing and social benefit practitioners who are near to and serve members of the community by making a difference towards them to embrace solid behaviours (Levit, Byatt, Lyss, Paskett, Levit, Kirkwood & Schilsky, 2020). In this study, community healthcare workers (CHWs) refers to the health workers who are working within the community as deployed by primary healthcare facilities.

1.6.2 COVID-19 - It refers to the disease brought about by a novel coronavirus called extreme intense respiratory condition coronavirus 2 (SARSCOV-2; also known as 2019-nCoV), (Center for Disease Control & Prevention, 2019)**.**

1.6.3 Household screening- In medicine, household screening refers to the way of screening individuals as per house to house by CHWs to find out if members of the community have

contracted the disease or not (Department of Health, 2020). In this study, household screening refers to screening of COVID-19 from house to house by community health care workers.

1.6.4 Challenges

Challenges are defined as a situation, hardship and complexity mothers experienced when caring for CP children in the home environment (Stevenson, 2010). In this study, challenges refer to the difficulties that CHWs encountered while conducting household screening.

1.6.5 Experiences

Experiences are the sum of the conscious events which compose an individual life (Erlich, 2003). In this study, experiences refer to events that CHWs went through during household screening.

1.7 CHAPTER DELINEATION

The study is organised into five chapters:

Chapter one focuses on the background for the study, problem statement of the study. The chapter covers the objectives of the study, the significance for the study, aim and objectives of the study, significance of the study, and definition of key concepts.

Chapter two provides literature on COVID-19 and CHWs.

Chapter three presents the research design and methodology which includes population, sampling, data instrumentation, data collection method, and ethical consideration.

Chapter four focuses on data presentation, analysis, and interpretation.

Chapter five presents the overall discussion of the study which includes findings, conclusion, and recommendation.

1.8 CONCLUSION

This chapter presented a brief background of the COVID-19 pandemic. This was followed by the purpose of the study, significance of the study, purpose of the study, objectives of the study,

research questions, definition of concepts, as well as the division of the study. In the next chapter, the researcher presents the literature review.

CHAPTER 2
LITERATURE REVIEW

2.1 INTRODUCTION

In this chapter, an overview of scholarly debates and literature on what naming entails in strategic communication is detailed. According to Mouton (2001:87) literature review is a "scholarship review" since the works that are being examined are those of other scholars. The primary aim of a literature review is to contribute towards a clearer understanding of the nature and meaning of the problem that has been identified (Fouché and Delport, 2005:123). A literature review is important because it enables the researcher to ascertain the extent to which previous researchers might have already addressed the main research question. Mouton (2001:86) asserts that the review of literature provides background and a synopsis of existing knowledge, or related studies conducted on the research topic being explored. This enables the researcher to identify gaps, which would have not been researched within the field of study. The nature, benefits and challenges of household screening are discussed in this chapter and show the gap that exists in the literature regarding the challenges experienced by community healthcare workers during COVID-19 household screening.

2.2 COVID-19 PANDEMIC

COVID-19 pandemic is described as a mild to severe respiratory illness that is caused by the coronavirus (severe acute respiratory syndrome coronavirus 2 of the genus Betacoronavirius) (Abd El-Aziz & Stockand, 2020). COVID-19 is transmitted chiefly through contact with infectious material, such as respiratory droplets or with objects or surfaces contaminated by the causative virus, and is characterised especially by fever, cough, and shortness of breath and may progress to pneumonia and respiratory failure (Hassan, Sheikh, Jamal, Ezeh & Akhtar, 2020). The COVID-19 pandemic has led to unpreceded challenges to public health (WHO, 2020). After being recognised at Wuhan (China) in December 2019, Coronavirus (COVID-19) spread to the rest of the world with devastating consequences, not only on public health but also on the socio-economic and political spheres.

The initial outbreak of COVID-19 was accompanied by the introduction of restrictions to only allow essential workers or priority public services such as nurses and doctors, and other healthcare professionals in general in the health sector (Delgado, Quintana, Perez, Sosa

Liprandi, Ponte-Negretti, Mendoza & Baranchuk, 2020). Services that were considered essential included the law enforcement sector, health sector, other private security officials, food and agriculture and the energy sector mainly. However, among the essential service providers during the COVID-19 pandemic, healthcare professionals were the service providers that remained at the highest risk of contracting COVID-19 pandemic. This was because healthcare professionals were in direct contact with COVID-19 patients, making the risk of contracting COVID-19 much higher (Jecker, Wightman & Diekema, 2020).

Nurses often experience both negative and positive dimensions of caring for their patients. Research has shown that in the past, community healthcare professionals were not confronted by serious work-related threats, conflict of interests, stress and anxiety, as compared to urban healthcare professionals (Jecker, Wightman & Diekema, 2020). Debriefing opportunities for nurses in the South African rural areas indicate that programmes that are aimed at discussing stress experienced and educational support services are essential components of the best practices for social and welfare support among community nurses (Jecker, Wightman & Diekema, 2020). The challenges experienced by community nurses is coupled by the need to provide constant services to patients located too far away from health facilities, such as the hospital or the clinic, while they are working with limited resources. The advent of COVID-19 worsened these experiences among healthcare professionals. COVID-19 constrained the financial capacity of both the patients and healthcare professionals, heightened stress levels, anxiety, and psychological impacts (Jecker, Wightman & Diekema, 2020).

Different safety and precautionary measures were put in place by governments and other health institutes such as United Nations Children's Fund (UNICEF) and World Health Organisation (WHO) to prevent the spread of COVID-19. Household screening emerged as one of the safety measures to curb the spread of COVID-19 within and among families, communities, and nations. Household screening test for COVID-19 is done to detect potential health risks and diseases in people that might not be showing the symptoms of COVID-19. This is done to detect COVID-19 early among patients, to prevent the spread to those close to the patient, through changing of lifestyle and reducing the risk of illness (Walton, Murray & Christian, 2020). In its essence, screening tests for COVID-19 are not necessarily considered diagnostic, but they are used to identify a group of the population to have additional testing to determine the presence of COVID-19. However, these measures to curb and prevent the spread of

COVID-19 resulted in the need to be extra cautious among healthcare workers working with infectious disease such as COVID-19 (WHO, 2020).

In a nutshell, healthcare professionals, particularly nurses, have been at the forefront of the fight against COVID-19. Despite the introduction of safety measures such as household screening, healthcare professionals remain at high risk of contracting COVID-19 due to their direct contact with patients. The challenges faced by community nurses have been exacerbated by the pandemic, including stress, anxiety, and limited resources. Addressing these challenges is crucial for the well-being of healthcare professionals and the patients they serve. Providing social and welfare support, educational opportunities, and debriefing programs for nurses in rural areas is essential. Governments and health institutes must continue to prioritize the safety of healthcare professionals as they work to contain and prevent the spread of COVID-19.

2.3 COVID-19 AND HOUSEHOLD SCREENING

Libin, Willem, Verstraeten, Torneri, Vanderlocht and Hens (2021) identify household screening as a significant approach towards efforts to curb the spread of COVID-19. This proactive measure is important in most developing countries in trying to minimise the impact of COVID-19. Household screening for COVID-19 is important in its ability to detect potential problems, minimising unclear, ambiguous, and confusing results that might have been initially gathered. The screening method is not always 100% efficient and accurate; however, it remains imperative to provide an overall picture of the intensity of the illness and preparedness that could be expected from the healthcare professionals within communities. Furthermore, screening needs to be used to people at high risk of COVID-19 because when it is used for almost everyone, it is likely to be extensively time-consuming and cause more problems and confusion than they could help (Black, Bailey, Przewrocka, Dijkstra & Swanton, 2020). For example, household screening could target households to which there is an essential worker, such as the nurse or the police official, that could be interacting with people on daily basis (Black, Bailey, et al, 2020).

A study conducted in China by Takyi-Williams (2020) indicates that the advent of COVID-19 was followed by the need to run COVID-19 tests to identify, isolate and treat the identified, infected individuals, to curb the transmission and spread of COVID-19. Household COVID-19 tests could be categorised group testing that is effective for a large population. However, there have been critics regarding the possible sampling dilution because of large pool sizes.

This limited the testing methods' detection sensitivity. This also required the need to sample all persons prior to pooling the already constrained resources. The COVID-19 testing resources are critically constrained in developing and underdeveloped countries. South Africa falls under the category of developing countries and experiences the scarce recourses such as testing kits. Different strategies emerged to test groups through samples of individuals representing different households. This strategy is important to reduce the number of samples collected and pooled during large-scale population testing. This method also results in the introduction of database system, which allows governments to continuously monitor the population's virus exposure, for better decision-making and deciding on the approaches that could be effective in helping people (Takyi-Williams, 2020).

Shah, Saxena and Mavalankar (2020) contend that COVID-19 is a novel virus with continuous evolving transmission trends. Quarantining of positive cases and contact-tracing are chief strategies of attempts to control the disease globally. This is done through scientific knowledge regarding household transmission of COVID-19. Furthermore, COVID-19 household screening is systematically important, to assess the global statistics and characteristics of household secondary attack rates. However, there are different trends and experiences of COVID-19 household screening in developed countries and developing countries. The rates of secondary transmission of COVID-19 varies from 4.6% to 49.56%, with greater vulnerability identified on the spouses and elderly population for secondary transmission than the other household members from different age categories. The study further indicated that there is a need for introducing strategies that adequately provide precaution, to protect the identified vulnerable group of people through tracing and quarantining. There is also a need for healthcare professionals who will be contacting the household screening to limit household contacts and perform active surveillance for symptom onset, to protect themselves from being contaminated (Lavezzo, Franchin, Ciavarella, Cuomo-Dannenburg, Barzon, Del Vecchio, Rossi, Manganelli, Loregian, Navarin & Abate, 2020).

2.4 THE IMPORTANCE OF HOUSEHOLD SCREENING

A study conducted at Belgium by Libin, Willem, Verstraeten, Torneri, Vanderlocht and Hens (2021) reports that COVID-19 threatens the healthcare systems of various nations across the globe. This resulted in the introduction of the non-pharmaceutical interventions, such as social distancing, teleworking, wearing mouth masks and contact tracing. Household screening remains an important pre-symptomatic transmission of COVID-19 through tracing efforts to

control this pandemic. However, various challenges are experienced when fully utilising screening to the entire population, to curb the pandemic. Household screening involves pooling of tests on individuals that belong to the same household; it is a feasible procedure in the event of limited resources and testing capacity. Household screening for COVID-19 can be used, together with other strategies, to reduce the spread of COVID-19.

Furthermore, in the United State of America, Woolf, Pingali and Hauptman (2020) report that COVID-19 seriously impacted the health and well-being children, as they are isolated and in their homes in compliance with the restrictive measures set to prevent the spread of COVID-19. However, apart from increasing the chances of being exposed to other environmental threats, such as screen time, other hazardous products and family stress, the children also become vulnerable to disease which they can contract from the elderly when they go out to work and to purchase food. This resulted in the need for household screening that also involves the children. Treatment and counselling for the parents or elderly people within households should anticipate the possibility of environmental hazards for children.

The study by Rivett, Sridhar, Sparkes, Routledge, Jones, Forrest, Young, Pereira-Dias, Hamilton, Ferris and Torok (2020) indicate the significance of screening for COVID-19 in both symptomatic and asymptomatic individuals, for healthcare professionals and the public. The study indicated that 3% of asymptomatic healthcare professional tested positive for COVID-19. This was followed by the screening of both symptomatic and asymptomatic households. The study revealed that there, was a need utilise comprehensive screening of healthcare workers and their households as a critical approach for protection against the spread of COVID-19. Most people that self-isolate after detecting COVID-19 positive early were recovering in a week period (Rivett, et al, 2020). This indicates the importance of household screening for both symptomatic and asymptomatic individuals.

Telephone-based screening also emerged during the initial COVID-19 outbreak, to detect the early symptoms of COVID-19. This points to the significance of screening services for COVID-19 as an important capability of the healthcare system, with a proper referral system. For instance, the descriptive cross-sectional study by NeJhaddadgar, Ziapour, Zakkipour, Abbas, Abolfathi and Shabani (2020) indicated that telephone-based screening for COVID-19 is useful for finding individuals with COVID-19 symptoms, and refer them to comprehensive healthcare services for clinical evaluation. The findings showed an increased number of COVID-19-related patients who were referred for comprehensive clinical examination after

the implementation of the program. This study shows that COVID-19 screening is essential because it curbs the spread of COVID-19 and facilitates the clinical service evaluation and subsequent healthcare service.

2.5 CHALLENGES OF COVID-19 HOUSEHOLD SCREENING

There are some challenges associated with household screening of COVID-19. For example, in Ireland, the study by Di Domenico, Sabbatini, Boëlle, Poletto, Crépey, Paireau, Cauchemez, Beck, Noel, Lévy-Bruhl and Colizza (2021) argued that adherence and sustainability of interventions informing optimal control against the spread of COVID-19 was the effective method. However, there is a challenge in balancing the efficacy of long-lasting interventions and their impact on mitigating the COVID-19 pandemic, as well as improving the quality of life. The study indicated that maintenance of lockdowns, social distancing and wearing of face masks, for example, are short-term initiatives towards mitigating the spread of COVID-19. Long-term interventions require much longer time to achieve effective results. One of the challenges of long-term interventions, such as household screening for both symptomatic and asymptomatic persons, is the intermediate distress and infringement on individual freedom and private spaces. However, household screening is imperative in the quest to limit the spread of COVID-19, especially with the waning adherence to the COVID-19 regulations and rules such as maintaining social distance, hand sanitising and wearing of face masks in public places.

The advent of COVID-19 resulted in socio-economic hardships that were experienced by many developing countries through, restrictive measures and regulations aimed at limiting the spread of the disease. Nachega, Grimwood, Mahomed, Fatti, Preiser, Kallay, Mbala, Muyembe, Rwagasore, Nsanzimana and Ngamije (2021) argue that Africa faces difficult choices, to ease lockdowns and sustain effective public health. Public health control and surveillance measures require sufficient resources. For example, resources are vital and effective in community screening, behavioural change interventions and community-based team training, to protect personnel on the field. Household screening for COVID-19 had some challenges, just like any other COVID-19 control measure. The challenges were in terms of affordability, resources and innovative ways of executing the tasks. Household screening provided an opportunity for aligning all the measures to protect the spread of COVID-19.

There were other indirect problems experienced by healthcare workers to accomplish the screening task. For example, the misconception that people had regarding the spread of

COVID-19 was one of the major hindrances for accepting any treatment and protective measure against the spread of the virus (Olayinka et al., 2021). From the current researcher's observation, most people believed that COVID-19 was a man-made scheme, meant to wipe-up some population groups in the world, especially the Black race. Hence, many advances in curbing the spread of COVID-19 were faced with much resistance in Africa and other parts of the developing world. In support of this, Olayinka et al. (2021) further assert that these misconceptions were also perpetuated by the misinformation that pervaded the social media spaces and the Internet on the negative perceptions regarding COVID-19. This made preventive efforts, such as household screening, more difficult and challenging for the healthcare professionals.

The challenges in household screening are also more critical in rural areas and community healthcare facilities. Although different studies rate the response level in developing countries, with some indicating that the preparation was excellent, while others caution that there is much that needs to be done to ensure that there is adequate support and service for COVID-19 patients (Chersich, Gray, Fairlie, Eichbaum, Mayhew, Allwood & Haghighi, 2020; Stiegler & Bouchard, 2020; WHO, 2020). Furthermore, the continued struggle to neutralise COVID-19 among most African countries is evidence of lack of resources and medical equipment, and South Africa is no exception. South African rural communities face challenges such as lack of water, proper housing, and long distances to access healthcare facilities, which pose additional challenges to those caused by the COVID-19 pandemic. Chirico, Nucera and Magnavita (2021) observe that lack of resources results in lack of training to fight against COVID-19 and enough protective equipment to use when on duty. Household screening for COVID-19 also needs adequate protective clothing for HCWs, to ensure that the task is effectively conducted and achieved, especially in rural areas and communities which lack some knowledge on the spread of COVID-19 (Ehrlich, McKenney & Elkbuli, 2020).

In Limpopo rural communities where the current study was carried out, there is a shortage of infrastructure, such as accessible roads for COVID-19 screening. In South Africa, Jobson, Naidoo, Matlakala, Marincowitz, Railton, McIntyre, and Peters (2020) observe that these challenges include difficult working environments, poor integration into the formal health system, low and inconsistent payment, fear of human immunodeficiency virus (HIV)-related stigma, poor leadership and planning, and lack of opportunities for career advancement (Bhaumik, Moola, Tyagi, Nambiar & Kakoti, 2020). Also, Ballard, Bancroft, Nesbit, Johnson,

Holeman, Foth & Raghavan (2020) add that community healthcare workers play an important role during the COVID-19 pandemic. For example, they educate the community about COVID-19; measures they should take to reduce transmission, conduct screening, and refer suspected cases for testing.

2.6 COVID-19 AND HOUSEHOLD SCREENING IN SOUTH AFRICA

The experiences of the recent COVID-19 outbreak varied from continent to continent and differed between developed countries and developing countries. Most countries in African are developing countries, and experienced socio-economic difficulties even before the outbreak of COVID-19 (Reddy, Shebl, Foote, Harling, Scott, Panella, Fitzmaurice, Flanagan, Hyle, Neilan & Mohareb, 2021). In developing countries, mostly in Africa, healthcare resources are constrained, which increases the costs of addressing the public health interventions to COVID-19. The combination of socio-economic difficulties and the constrained resources in many developing countries resulted in the increased mortality levels of the patients with COVID-19. Mass symptom screening for COVID-19 became cost-effective where quarantine centres were not practical and through isolation centres. The study conducted in Cameron by Reddy, Shebl, Foote, Harling, Scott, Panella, Fitzmaurice, Flanagan, Hyle, Neilan and Mohareb (2021:65) indicate that despite the economic hardships and constrained resources in South Africa, the healthcare sector should devise cost-effective strategies that involve household contact tracing, mass symptoms screening and quarantining of household contacts who test negative, to reduce the negative impact of COVID-19 on the socio-economic spheres". Further "the implementation of interventions such as household screening and highly depends on the epidemic growth characteristics and practical implementation considerations" (Reddy, Shebl, Foote, Harling, Scott, Panella, Fitzmaurice, Flanagan, Hyle, Neilan & Mohareb, 2021:56).

Household transmission is a substantial driver for COVID-19 pandemic in many communities in developing African countries (Kollamparambil & Oyenubi, 2021). Communities in many developing nations, where there are slums, are multigenerational households. This makes them prone to higher COVID-19 fatality rates (Abuya, Austrian, Isaac, Kangwana, Mbushi, Muluve, Mwanga, Ngo, Nzioki, Ochako & Pinchoff, 2020). In these communities, it is imperative to erect sites with handwashing and sanitation resources, ablution facilities, clean water, and other resources, to ensure effective periodic sampling and testing points (Kollamparambil & Oyenubi, 2021). Household screening for COVID-19 is important, although transmission occurs in the pre-symptomatic stage.

In South Africa, the pandemic has exposed pre-existing healthcare inequalities and increased the burden on the already overburdened healthcare system. Household screening, which involves community health workers visiting households to screen for COVID-19 symptoms, has been one of the strategies employed to curb the spread of the virus. According to a study by Iwu et al. (2021), household screening has been effective in identifying individuals with COVID-19 symptoms and increasing testing rates in South Africa. The study report that household screening increased testing rates by 21.5% and identified a significant number of individuals with COVID-19 symptoms who were not previously tested. The authors suggested that household screening should be scaled up and integrated into existing community health programmes to improve COVID-19 testing rates in South Africa.

Despite the benefits of household screening, there have been challenges in implementing this strategy in South Africa. One of the major challenges is the shortage of community health workers. South Africa has a shortage of healthcare professionals, including community health workers, which has made it difficult to scale up household screening programmes. According to a study by Reddy et al. (2020), the shortage of community health workers has resulted in limited access to healthcare in rural areas and has hindered the implementation of household screening programs. Another challenge is the lack of trust in the healthcare system. Many people in South Africa have a history of negative experiences with the healthcare system, including discrimination and poor quality of care. This lack of trust has resulted in low uptake of household screening programmes. A study by Nkosi et al. (2021) report that community health workers encountered resistance from some households, who refused to participate in household screening due to distrust in the healthcare system.

2.7 COVID-19 AND MEASURES TO PROTECT THE SCREENING OFFICIALS

Research has shown that there are risks associated with being the frontline healthcare worker on COVID-19 pandemic (Aigbavboa, Aghimien, Thwala & Ngozwana, 2021). The challenge is the lack of training and awareness, shortage of personal protective equipment and limited point-of-care diagnostic tests. Lack of training and awareness is devastating because it does not affect the developing countries alone; rather, it also affects the developed countries. For example, in many instances there is little attention to the impact of COVID-19 on healthcare workers, resulting in them not getting tested for COVID-19. Healthcare workers contribute to the household transmission of COVID-19. CHWs are responsible for the high transmission rate of indoor environments. Furthermore, they are at risk of asymptomatic patients that are

admitted to the hospitals without respiratory symptoms who could spread the virus to unaware and unprotected healthcare workers. Household screening is one of the critical measures to detect and prevent the spread of COVID-19. However, CHWs should be protected, to ensure that they are not infected. Liu et al., (2020) highlighted that frontline CHWs who had zero expertise in infectious disease had additional challenges when they adjusted to an entirely new working environment in this stressful situation, compared to those who had some experience.

In the context of this study, measures to protect screening officials in South Africa include; personal protective equipment (PPE), training and education, regular testing, limiting exposure (Reddy et al., 2020). The South African government provided PPE to screening officials to reduce the risk of exposure to COVID-19. PPE includes gloves, masks, face shields, and gowns. Wearing PPE reduces the likelihood of infection and transmission of the virus. According to a study by Iwu et al. (2021), the use of PPE was found to be effective in reducing the risk of COVID-19 infection among healthcare workers in South Africa. Further, Screening officials in South Africa had to receive adequate training and education on COVID-19 screening measures and infection prevention and control. According to a study by Reddy et al. (2020), regular testing was found to be effective in identifying COVID-19 infections among healthcare workers in South Africa.

2.8 CONCLUSION

The reviewed literature shows that screening for COVID-19 symptoms is one of the most effective ways to curb the spread of the disease within households. Healthcare workers in South Africa were deployed to communities to conduct household screening for COVID-19. The literature shows that there is a difference between developed and developing countries in their progress to stop the spread of COVID-19. Many developing countries, especially in Africa, struggled to contain the high rates of COVID-19 contamination. The literature also shows that there are challenges in terms of the resources provided to the healthcare providers, to help them to execute household screening effectively, and protect themselves from being infected by the disease in the process.

CHAPTER 3
RESEARCH METHODOLOGY

3.1 INTRODUCTION

The previous chapter presented a critique of the literature relating to the research problem of the study. This section focuses on the philosophical foundations; namely, the research approach, the design, and the research methodology. According to Sileyew (2020), research methodology refers to strategies used to recognise, determine, prepare, and analyse data for the topic at hand. Duffy (1986:10) states that the nature of data and the problem of the research dictate the research method. This means the researcher is guided by the objectives and research questions in selecting the appropriate methodology, as stipulated in the introductory chapter of this study. Concepts relating to the population, sampling, instrumentation, data collection and analysis strategies are also included

3.2 RESEARCH APPROACH

This study adopted a qualitative approach, to gather information from the participants in the form of words. This approach was selected because it allows the researcher to have a deeper understanding of the subject under investigation. It also describes how events unfold, and how one event can lead to the other (Maree, 2012). Using the qualitative research approach provided the CHWs with an opportunity to express their feelings and narrate their lived experience when executing their duties during COVID-19 household screening. CHWs were given adequate time to respond to questions posed to them, without any limitations. The approach was relevant for the current study also because the nature of reporting detailed views on the CHWs in their natural settings.

3.3 RESEARCH DESIGN

According to Bhat (2019), the research design is an arrangement of methodologies and strategies in gathering and examining proportions of variables showed in the research problem. This study used triangulation of explorative, descriptive, and contextual designs, to allow the community healthcare workers to express their feelings, experiences and emotions towards the challenges they are exposed to during COVID-19 household screening.

3.3.1 Exploratory design

The purpose of exploratory research is to acquaint the researcher with a situation to formulate the problem (de Vos, et al, 2005:109). Thus, exploratory design is conducted when the researcher has no previous information on the research problem at hand (Bhat, 2020). The reason for using exploratory design was to gain a better understanding of the perceived challenges experienced by community healthcare workers during the COVID-19 household screening and to generate new ideas on actions to be taken by community healthcare workers when they are exposed to challenges.

3.3.2 Descriptive design

The descriptive design strategy is a logical strategy which includes watching and depicting the behaviour of a subject without impacting it in any way (Sleyew, 2019). The use of a descriptive design in this study enabled the researcher to obtain in-depth descriptions of experiences of community healthcare workers regarding the challenges they were exposed to during COVID-19 outbreak household screening.

3.3.3 Contextual design

According to Maree (2012), contextual design involves going out to a natural participant environment and watching, conducting, or inquiring questions to discover more about the group of participants that assisted the researcher, as well as their inspirations, including how they got a prototype or idea. This study is contextual in nature, as it was conducted in Thulamela Municipality of Vhembe District within the communities where community healthcare workers were deployed.

3.4 STUDY SETTING

A study setting refers to the environment where the study is conducted. It has imperative results for an exploratory plan, the sort of information that can be collected and an elucidation of the outcome (Creswell & Poth, 2018). This study was conducted in the primary healthcare facilities situated in Thulamela Municipality of Vhembe District, Limpopo Province. The district is found within the northern part of Limpopo Province and shares boundaries with the Capricorn and Mopani regions within the Eastern and Western headings. The district covers 21 407 square km of land, with an absolute populace of 1 393 949 individuals as indicated

(www.vhembe.gov.za). The district comprises of four local municipalities; namely, Musina, Makhado, Thulamela, and Collins Chabane. There is a high percentage (70%) of people living under the food poverty line. Vhembe District has six (6) district hospitals: one (1) regional hospital one (1) specialized psychiatric hospital, one hundred and fifteen (115) clinics, eight (8) community healthcare centre and nineteen (19) mobile clinics. The eight (8) available district hospitals provide the first level of care and one (1) regional hospital provides secondary level of care. The outreach health care services are provided by mobile clinics to the community. All the Primary Health Care (PHC) centres provide comprehensive primary healthcare services, (Vhembe District Municipality Integrated Developmental Planning [IDP], 2020. The CHWs are attached to these facilities to also provide home-based care to those communities.

3.5 STUDY POPULATION

The study population refers to the comprehensive assembling of people, institutions and objects with common characteristics that are intrigued of a researcher (Neuman, 2011). The target population in this study comprised CHWs who were working within communities, as deployed by PHC facilities in the Thulamela Municipality of Vhembe District. The researcher chose CHWs because they met the criteria for this research topic, since they were the foot soldiers during the COVID-19 door-to-door screening. The accessible population in this study were 56 CHWs working in the communities served by the two selected PHC facilities, situated in villages and townships, respectively. Both serve a large population. The two facilities had a total of 26 CHWs.

3.6 SAMPLING

Sampling is a strategy of selecting individuals or a subset of the populace to form measurable inductions from them and gauge the characteristics of the full populace (Kothari, 2012). This study employed purposive non-probability sampling to select both facilities and participants. Purposive sampling refers to non-probability sampling in which the researchers depend on their judgment when choosing individuals of the population to take part in their study (De Vos, Strydom, Fouche & Delport, 2013). Purposive sampling was chosen because both participants and facilities were selected based on their characteristics through the judgmental of a researcher. In this study, purposive sampling was used to sample both the PHC facilities and participants.

3.6.1 Sampling of PHC facilities

The researcher purposefully selected two PHC facilities because both were serving a wide range of communities within the same municipality of Thulamela.

3.6.2 Sampling of the participants

The current study employed purposive sampling, targetting CHWs working in various communities, as deployed by the selected primary healthcare facilities. The final sample size of 17 participants was determined by data saturation. Data saturation implies that there was no new information coming from the participants during data collection (De Vos, Strydom, Fouche & Delport, 2013).

3.6.2.1 *Inclusion criteria*

Inclusion criteria refers to a group of pre-defined characteristics utilised to distinguish potential subjects to be included in the study (Patino & Ferreira, 2018). The participants for the current study had to meet the following criteria to be included in the study:

- The participants volunteered and were willing to participate in the study.
- The participants were CHWs linked to the two selected PHC facilities.
- The participants were involved in household screening during the COVID-19 pandemic.

3.6.2.2 *Exclusion criteria*

Exclusion criteria comprise characteristics used to identify potential research participants who should not be included in a study (Patino & Ferreira, 2018) The following exclusion criteria applied:

- Participants who were on leave during data collection
- Participants who were ill.
- CHWs who did not sign the consent form

3.7 METHODS FOR DATA COLLECTION

The researcher used unstructured interview as a method of gathering data from the participants. She developed the central question, which helped in gathering deep information from the participants. Probing questions were asked to gather further information from the participants. The following central question was asked, to initiate the discussion:

> *'Can you please describe the challenges you experienced during COVID-19 household screening in the communities you were deployed to?*

3.8 PRE-TEST

According to Malik (2017), pre-testing is a state during which a questionnaire is examined with a small sample of participants before the full-scale study, to pick out any issues, such as uncertain wording or the time for data. The researcher conducted a pre-test on three community healthcare workers from the same population. The pre-test findings were included in the main study because it is a qualitative study, and the researcher is the instrument. Pre-testing helped in modifying the interviewing skills of the researcher and determined the strengths and weaknesses of the researcher as the instrument for data collection.

3.9 DATA COLLECTION PROCEDURE

Data collection refers to the systematic strategy of gathering and measuring data from a variety of sources, to get a whole and accurate image of a location of interest (Stieglitz, Mirbabaie, Ross & Neuberger, 2018). The researcher collected data about the challenges of community healthcare workers during the COVID-19 household screening at selected primary health care in Thulamela Municipality, Vhembe District. The researcher requested a room at the primary healthcare facilities from the manager of such the specific facility. This room was used to interview the CHCWs. The researcher ensured that the environment where the study was conducted was free from disturbances and that participants felt safe and were able to share their challenges. Furthermore, the venue and time for data collection were convenient for the participants.

Data collection from the participants lasted for 30-45 minutes with each participant. The questions during the interview were asked using the local language of participants, which is Tshivenḓa. The researcher used an unstructured interview because it encouraged effective

communication between the researcher and the participants, and it also allowed the participants to express their individual experiences. The researcher used communication techniques such as probing, paraphrasing, and summarising, to gain deep information from the participants.

Prior to beginning with the interviews, the researcher requested informed consent and explained that an audio-tape recorder would be used to collect information from the participants. The audio-tape recorder enabled the researcher to transcribe the participants' verbatim responses and ensure that the information collected from the participants was accurate.

3.10 DATA MANAGEMENT AND ANALYSIS

Data analysis is the method of reviewing, improving, adjusting, and changing information, to extricate valuable data from it (Creswell, 2013). All the interviews conducted for the purpose of this study were transcribed verbatim, instantly, from the audio-tapes. The data was also translated from Tshivenḓa to English by a language expert. Halcomb and Davidson (2006) stress that verbatim transcription is capturing every sound heard in an audio or video file. With verbatim transcription, everything said by the speakers is transcribed. Therefore, apart from complete sentences, the researcher also captured laughs, stutters, giggles, and other sounds in the transcript. All the transcripts were locked in a safe, to prevent people who were not part of the study from accessing them. The researcher used qualitative data analysis, which is non-numerical, as well as a translation of the perceptions, to find the basic implications and examples of connections (Crossman, 2020). In the current study, the researcher used thematic data analysis. This is because it allowed flexibility in analysing the data. The following steps, suggested by Gavin (2008), were followed in the current study:

Step 1: Familiarisation with the data

In this initial step, the researcher familiarised herself with the data collected through effectively engaging with transcription. The researcher also listened to the voice recordings and ensured that it was transcribed as quickly as possible.

Step 2: Generating initial codes

When she had acquainted herself with the information, the researcher distinguished the fundamental codes, which are the highlights of information that seem intriguing and important.

In the current study, the researcher coded the data for a word, sentence, or paragraph; for example, the sentence, *"challenges that community health care workers are exposed to, during COVID-19 household screening"*, was marked with a green colour.

Step 3: Searching for themes

In this third step, the researcher began identifying the fundamental themes that were significant from the interviews and categorised them as main themes or sub-themes. The researcher did not dispose of themes that appeared unimportant or unneeded at the time, but kept them for possible use during data analysis.

Step 4: Reviewing themes

During step four, the researcher reviewed and refined the themes that had been identified in step three. In this phase, the researcher ensured that information within the themes corresponded and was relevant.

Step 5: Defining and naming themes

During step five, the researcher named the themes identified as descriptive and engaged them. The researcher also defined the theme, to bring a clear understanding. However, themes that were too diverse or complex for the researcher to analyse forced the researcher to return to step four to do a thorough re-working on the themes.

Step 6: Producing the report

In this final step, the researcher produced a concise, coherent, and non-repetitive report, so that readers may evaluate quality research and be convinced. The findings were described in themes and as verbatim expressions, as evidence.

3.11 MEASURES TO ENSURE TRUSTWORTHINESS

Trustworthiness involves proving that the outcomes detailed are sound and that contentions made towards the outcomes are strong (Creswell & Poth, 2018). To ensure trustworthiness in this study, the researcher took into consideration the following principles: conformability, transferability, credibility, and dependability.

3.11.1 Conformability

Babbie and Mouton (2010) define conformability as the degree to which outcomes may be affirmed or certified by other researchers. In this study, the researcher ensured conformability by employing an audit trail, which implies a systematic collection of documentation. The researcher also ensured that the documentation comprised of fields notes, voice recordings of procedures throughout the individual interview and the verbatim transcripts compiled through listening to the voice recordings. The audit trail enabled an independent auditor to draft a conclusion based the data collected and analysed. In addition, the researcher ensured conformability by comparing the findings of this study with existing literatures.

3.11.2 Transferability

Transferability is developed by demonstrating to readers that the study findings may be fitting to different setting, conditions, times, and masses (Babbie & Mouton, 2010). In this study, the researcher ensured transferability through employing a thick description with a clear simple language which included methodology and context. Consequently, a thick description gave a chance for readers to decide if the results of study are transferable into their own context or situation.

3.11.3 Credibility

Credibility includes setting up the findings which are sound or trustworthy from the perspective of the participant within the research (Creswell & Poth, 2018). In this study, the researcher ensured credibility by having a prolonged engagement with participants during appointment setting and during the interview sessions. Hence, a prolonged engagement helped the researcher to gain in-depth information from participants and built and established a good rapport between the researcher and participants.

The researcher also employed member check, to ensure credibility in this study. Member check refers to the research technique wherein the researcher differentiates the understanding of what an interview participant said or implies with the participant, to guarantee that elucidation of the researcher is precise (Livari, 2018). In qualitative research, member check is significant because it eliminates research bias and subjectivity during the analysis and interpretation of the results. To ensure member check during the interview session, the researcher probed the

CHWs, to extract data from the engagement. Statements were paraphrased and repeated in the form of questions without using the exact words of the caregivers, so that the researcher could be sure that he understood the participants correctly.

3.11.4 Dependability

Dependability is the basic unwavering quality because it ensures that the discoveries of the research are considered dependable and repeatable (Korstjens & Moser, 2018). The researcher ensured dependability through using the Code-Recode strategy, which implies that the data collected from the participants was coded, the researcher waited for at least two weeks, then returned, recoded, and evaluated the findings. The CHWs were visited after data analysis, to ensure that what was written was what was said and implied by the participants.

3.12 ETHICAL CONSIDERATIONS

Ethics in research involves "philosophical and esteem position of the researcher, discourse proceeding of numerous decades and learning from excruciating botches, as well appeared by the audit of the history of research" (Žukauskas, Vveinhardt, & Regina, 2018:37). In this study, the following ethical principles and guidelines were taken into consideration, to reduce possibility of exploitations: ethical clearance, informed consent, confidentiality, and anonymity.

3.12.1 Ethical clearance

The researcher followed the University of Venda protocol to obtain ethical clearance. The proposal of this study was submitted to the Faculty of Health Sciences Higher Degree Committee for quality evaluation and appraisal. The proposal was further endorsed by the Research Ethics Committee of the University of Venda for ethical clearance.

3.12.2 Permission to conduct the study

Upon receiving the ethical approval, permission to conduct the study was requested from the Limpopo Provincial Department of Health (see appendix C) and Vhembe District Department of Health to have access to primary health care facilities (see appendix D). After being granted permission, the researcher requested access from the manager of the specific PHC facility to conduct the study.

3.12.3 Informed consent

Informed consent refers to the procedure of informing study participants the possibilities around the key components of the research and what their support includes (Israel, 2014). The researcher provided participants with the full information about the study prior to the commencement of the interviews, which allowed them to make informed choices of whether to participate or not, in writing, by signing a consent form (Appendix A). Those who agreed to participate in the study, were given information leaflets prior to signing of the consent form. The researcher also provided participants with a copy of their signed informed consent, which had the contact details of the researcher and supervisor in case they needed clarification. Informed consent included aspects such as purpose of the study, outline of the procedures, risks to participants and potential benefits.

3.12.4 Confidentiality

Confidentiality refers to the circumstance state wherein the researcher knows the identity of the research object but takes into consideration the steps, to secure that character from being known by others (Babbie, & Mouton, 2010). The researcher locked the information from the participants in a safe and ensured that no unauthorised individuals could access the data. This ensured participants' right to privacy.

3.12.5 Anonymity

Anonymity refers to a condition wherein the character of participants is not known to the other researchers (Babbie, & Mouton, 2010). The researcher protected the identity of participants by not revealing them, and anonymity was ensured by replacing the true identity of participants with labels such as Participants 1, Participant 2 and Participant 3, until data saturation was reached.

3.12.6 Right to withdraw from the study

The researcher informed participants that they had the right to withdraw from the study at any time if they wished to do so (Appendix A). This was explained to them before the commencement of the interview. The participants were also informed that their information will never be used against them under any circumstances, even if they quit before the end of the interview.

3.12.7 Avoidance of harm

Questions which might affect the CHCWs' emotional or psychological well-being were not asked during the interviews, and sensitive words were avoided throughout the study. Finally, CHWs were not requested to use their money for the benefit of the study, as they were visited at convenient places during convenient times for the interviews.

3.12.8 Protection from COVID-19

During the interaction with study participants, the researcher ensured that participants were protected from infection, by supplying them with face masks and hand sanitizers. A social distance of at least 1, 5 meters was practiced during the interaction with the participants. In addition, the researcher did not meet with more than one participant at a time, during data collection. The researcher ensured availability of non-contact infrared thermometer, to be used for screening of body temperature for each participant before the beginning of each interview.

3.13 CONCLUSION

This chapter provided the overall research methods in detail. Thus, the nature of the study and the study population were established. The data collection and analysis instruments employed in this study were also identified, and the justifications were provided. The participants who were involved in this study were clearly described. Finally, data presentation and processing procedures, as well as the ethical considerations, were discussed. Chapter four presents the study findings.

CHAPTER 4
PRESENTATION OF THE STUDY FINDINGS

4.1. INTRODUCTION

The previous chapter detailed the research paradigm, design and methodology underpinning the study. It also presented the rationale for decisions, and procedures pertaining to data collection and analysis. In this chapter, the data is sequentially presented, analysed, and interpreted in a systematic manner, as the next step of the research process. As highlighted in Chapter three (3), data analysis involves binding and mind-mapping the collected data, even during the collection of data. This is because the two processes occur concurrently. This chapter presents the findings of the study. This is the data collected from participant interviews. The findings are presented in narrative form. This chapter briefly highlights the demographic profiles of the respondents and presents the findings from the analysed interviews. The findings are in thematic form.

As conceptualised in Chapter one, the aim of the study is to the challenges experienced by community healthcare workers (CHWs) amid the COVID-19 outbreak household screening in the Thulamela Municipality of Vhembe District in Limpopo Province. The next section presents the findings of the study.

4.2. PRESENTATION OF THE FINDINGS

In this section, the data is presented, analysed, and interpreted concurrently. Data presentation refers to the organisation of data, so that logical and statistical conclusions can be derived from the collected information (Marshall and Rossman, 1999:160). Data saturation occurred after interviewing 17 participants. It is vital to note that the demographic profiles of all participants were females.

4.2.1 Demographic profiles of Participants

In the study, the demographic profiles encapsulate age, gender and experience, as depicted in the Table 4.1.

Table 4.1: Demographic profiles of participants

Participant	Age	Gender	Experience
Participant 1	50 years	Female	6 years
Participant 2	52 years	Female	9 years
Participant 3	50 years	Female	10 years
Participant 4	54 years	Female	8 years
Participant 5	50 years	Female	8 years
Participant 6	42 years	Female	8 years
Participant 7	56 years	Female	9 years
Participant 8	57 years	Female	6 years
Participant 9	37 years	Female	7 years
Participant 10	47 years	Female	14 years
Participant 11	48 years	Female	5 years
Participant 12	37 years	Female	13 years
Participant 13	33 years	Female	9 years
Participant 14	37 years	Female	11 years
Participant 15	41 years	Female	13 years
Participant 16	47 years	Female	6 years
Participant 17	40 years	Female	5 years

4.3. THEMES EMERGING FROM DATA (EXPLORING AND DISCUSSING CHALLENGES OF CHWs)

This section focuses on the themes that emerged from the study findings. The themes included denial of access to households by community members, fear of transmission of COVID-19 from CHWs to community members, lack of PPEs, pressures to meet quotas, CHWs' fear of getting infected by community members, safety and security issues, withholding of information and withdrawal from the screening process, as well as unpaid COVID-19 risk allowances. These themes are detailed below.

4.3.1 Denial of access into homes by communities

Many of the participants demonstrated that they had great difficulty accessing certain homes within their communities. Denial of access into households came in different forms but one of the most prominent forms being situations were homeowners deliberately locked their gates to ensure that Community Healthcare workers do not have access to enter their property. Some of the participants echoed the following regarding this issue.

"One of the challenges was that people would not want to open the gate for us' **(Participant 2 – 50 years old)**

"They would look at us through the windows and not even bother coming to open the gates for us and we would have to go back without entering the yard". **(Participant 3 – 52 years old)**

"The other challenge was when we went to affluent houses where the gates are always closed, and access can be difficult. We would sometimes call out from the gates and they would not respond" **(Participant 3 – 52 years old)**

Drawing from these statements, it is vital to highlight that gates were closed by community members who refused to open after knowing that it was CHWs who were seeking access into the property. Participant 3, for instance highlights the aspect of denial of access by showing that some houses could not be accessed due to the issue of the use of remote gates which they are not able to open. A different form of denial of access is highlighted by Participant 10 and 14, who found the gate opened but it was shut when the community members realized it was the Community Healthcare Workers at the gate.

"It was not easy at all because many people would close the gate when they see us approaching. In fact, they called us the COVID-19 people." **(Participant 10 – 32 years old)**

"the people refuse for us to enter their homes even if the door is open, they would quickly shut it close" **(Participant 14 – 42 years old)**

The case highlighted by participant 8 is slightly different from the other cases because the participant managed to get access in this case but were forcefully and intentionally removed from the home, as shown below.

"We did encounter difficult circumstances because in some houses they would kick us out and not even allow us to get into the house because they thought we would be bringing them the virus other homes even use remote gates, so we were not even able to open the gates to enter." **(Participant 8 – 40 years old)**

At other times, Community HealthCare Workers were denied access due to circumstance wherein they would arrive at a home at an inconvenient time for the homeowner. For instance, when the owner is leaving the property for something urgent.

"I found the female owner of the house leaving and I promptly introduced myself and that I came to teach about the virus, she informed me she doesn't have time to listen because I found her on her way out. I understood her and was aware that I couldn't force her, so I went to the next house." **(Participant 9 – 34 years old)**

4.3.2. Community members fearing infection by CHWs.

One of the aspects that most of the CHWs viewed as a challenge was fear of infection by CHWs. Many of the community members were of the view that the CHWs would intentionally or inadvertently infect them and their loved ones with COVID-19. The fear of getting COVID-19 from contacting CHWs elicited some apprehension from community members, whether they believed that CHWs were spreading COVID-19 intentionally or not. This resulted in many of the community members being rude or refusing to participate in the screening process.

They accused us of going around infecting people and subsequently killing them. They called us imposter who infected people whilst pretending to help the people. **(Participant 1 -37 years old)**

"I suspect that many of the people that didn't want to welcome us perceive that we have Covid. Some of them had misperceptions because of bottles of sanitiser that we would be holding. They would perhaps assume that that the vessel that has the virus which we are spreading." **(Participant 4 – 45 years old)**

It is important to note that a large proportion of the participants believed that CHWs were agents used by the government to spread COVID-19. Much of the fear can be linked to conspiracy theories and disinformation which were rampant during COVID screening, especially because there was little information on the virus at that point. Some participants echoed this:

"it was not easy for the public to accept us and when we got to many of the houses, we would find their gates closed. And they would insist that we should not get in because we are the carriers of the virus and we are going to infect them. **(Participate 8 – 40 years old)**

"People would see how the disease was spreading and killing people and how the people were being buried and this is the image they would have when we entered into their homes. They would ask us if we had come to finish them off because we were told once get vaccinated that would be the end of us." **(Participant 12 – 34 years old)**

"In some house, as soon as you entered and introduced yourself, they would just presume you were coming to infect them with Covid. They would say that you found us with our gates closed but now you want infect us with Covid." **(Participant 6 – 37 years old)**

The responses from *Participants 14* and *9* deserve a special mention because they highlight the level of extremism in the opposition to screening and the COVID-19 virus in general and how deeply it was founded on conspiracy theories. Some of them were so radical and shocking. Some members of the community accused government of having a depopulation agenda. Others bluntly called the vaccine and all efforts surrounding it '*satanism*'.

"We asked why they wouldn't allow us to teach them what was also taught to us? They replied that Covid doesn't exist and our aim was to kill them, and effectively cause depopulation. When we asked the neighbours why the people we had encountered had given us such negative feedback, they informed us that there were rumours going around that the virus doesn't exist and that the aim was to create panic and eventually cause depopulation. We are not allowed to

argue with the community members so if they refuse, we have to move on to the next house" **(Participant J - 32 years old)**

"Other people were scared that as I go door to door, I could infect them with Covid. Others just don't even believe there is Covid. Some don't even want to get registered for vaccination because they claim it is linked to Satanism. "(**Participant 14 – 37 years old)**

4.3.3. Lack of PPEs

Majority CHWs concurred that they did not have sufficient PPEs in general. The first problem seemed to have been that the PPEs arrived late sometimes. However, the issue that most CHWs complained about was the fact that they did not have gowns, which nurses who were in contact with patients were given. That was a problem because they felt that they were also at risk by being out there in the communities, and needed the gowns. Other CHWs such as *Participant E* never felt that they lacked sanitisers and masks but were concerned mostly about gowns.

"To be very honest we didn't have gowns. The one thing we never ran hot of was sanitizer. We would make sure that when we left the clinic, we had masks and sanitizers. Once they realized they was a shortage of disposable masks they gave us reusable cloth masks. We would always use the washable cloth ones as backup if the disposable ones ran short. They only gave us gowns a lot later." **(Participant 5 - 30 years old)**

"We used to have masks, but I can't say we had full PPE. We would sometimes run short of sanitiser. As for gowns I never even saw on neither was one ever given to me" **(Participant 10 – 32 years old)**

Many of the CHWs who believed that they did not have sufficient PPEs generally thought that the problem did not only include masks, but also shortages of masks and sanitisers. These include stories of CHWs having to share one sanitiser bottle and having to take turns to enter houses and cases where disposable masks would have to be used all day and the use of reusable masks by CHWs.

"PPEs were hard to come by. I mean masks, sanitizers, and gowns. Two of us would have to get an extra container so that we could share a 500ml bottle of sanitiser because we couldn't go into someone's home without sanitiser because it wouldn't even be safe for us. Masks were

also difficult at that time and sometimes we would even have to wash disposable masks so that we could use them the following day". **(Participant 8 - 43 years old)**

"In my opinion the masks were not enough. You would go house to house all day wearing the same mask and due to lack of masks we couldn't be constantly changing masks". **(Participant 11- 40 years old)**

"PPE was not enough at all. I remember I would use one mask to get into 20 households the whole day basically. The two of us would have to share one bottle of sanitiser. I would have to wait for another colleague to come out the house they entered so I could enter the house I need to go into. As for gown I never even saw one, we were not given" **(Participant 14 – 37 years old)**

4.3.4. Pressure to meet quotas

Some of the CHWs mentioned the burden of having to meet a daily quota for statistical purposes. They highlighted the number of participants they had to screen daily and even a quota of houses they had to go into. It is important to note that this aspect was not brought up by all the CHWs, and it may have either not been a problem to some or may have not been perceived as a challenge during screening. However, for those that did report it, it seemed to be a thorn in the flesh.

"When we went to screen, we were given a quota of people we needed to screen daily. For example, you would be told to screen a 100 people per day. We would be on our toes the whole day to ensure that we met the quota. If we took care of patients, we met at homes we would not meet the quota." **(Participant 7 – 50 years old)**

"You were given a daily quota of a 20 homes per day. The minimum number of people in that scenario would be around 80 because even school learners were also staying at home because schools were closed". **(Participant 13 – 47 years old)**

"It also affected our statistical quota because you saw you screened a person and spent time with them then they don't have ID thus you cannot keep that record." (**Participant 9 – 40 years old)**

"It means that when it comes to time you have to tell yourself you will be in this house for 30 minutes only so that you have time to go to other houses. If you surpass the 30 minutes you will be using the time needed to go to other homes". **(Participant 15 – 34 years old)**

4.3.5. CHWs' fear of getting infected by community members

In general, a large majority of CHWs acknowledged that they feared infection and subsequently infect their families. One of the fears was that they could be getting into contact with infected people who may have come from provinces such as Gauteng, which were a 'hotspots' of the virus, or other people who had travelled or got exposed to the virus elsewhere. Most of the CHWs who reported being afraid of getting infected while at work seemed to go with the fear of infecting their loved ones at home. This was their primary concern. It was as if they had accepted their own fate and the risk involved in their work, but their greatest concern was their loved ones who could get in contact with them when they get to their homes.

"We were also scared because we would also be in the clinic and other people would come and test positive, we had contact with these people and we could possibly be infected as well and subsequently spread it to our families". **(Participant 16 -33 years old)**

"When Covid started we didn't know what kind of virus this is and that contributed to our fear of it. From the moment we left the clinic we were in fear and we were strictly instructed not to touch anything because even when you open a gate you don't know who else who touched it" **(Participant 11 – 34 years old)**

"We were also fearful during that time because everyone else was getting holiday at home. We only rested for a week then we were later being recalled working. We were told we were going to go from house-to-house screening people, and it didn't make sense to us at the time. We would reason that if we were to find people that came from Gauteng or other provinces were Covid was rampant then we could get infected subsequently infect our children and our families". **(Participant 8 - 37 years old)**

"Fear came from the fact that I didn't know the houses we were entering into and I don't know if there is someone with Covid or not and there is a possibility that I could get infected then subsequently infect my family" **(Participant 11 – 32 years old)**

"The first challenge was that we were told we are going out to screen people who are not sure of their Covid status. So, there is a serious possibility of us getting infected as well. It's sort of like being dragged into a zoo and asked to come back holding a lion in your hand." **(Participant 14 – 31 years old)**

"If this individual got infected on the road it means the whole family could also be infected and subsequently, I could get infected too and also take it back to my family" **(Participant 15- 34 years old)**

4.3.6. Safety and Security issues

Many of the CHWs highlighted that their main challenge was safety and security. Many of them did not feel safe because of the various aspects of their jobs. The first were dogs that they would find in different homes. One participant highlighted that some of the houses did not even have 'beware of the dog' signs. Dogs are dangerous on their own, and with the added danger of being unwanted in a home, some of the CHWs highlighted that dogs were used as a means to threaten them.

"There were homes were as you approach you would think they will set their dogs on you. They would say to us that if possible, they could get new puppies so that they can set them on us because we are disturbing their peace". **(Participant 7 – 35 years old)**

"We encounter many instances of being insulted and some people even told us they don't want us to enter and some would even threaten you with dogs. One of our colleagues from Malamulele was bitten by dogs whilst she was screening". **(Participant 8 – 36 years old)**

"We worked in many communities not just Shayandima we even worked in Dzwerani. This community was new to us and we were just thrown there and told to go around the whole of it. We don't even know how the people in that village behave so we are at risk in that place…Some homes we would find big dogs and they don't even put the sign that you should beware of the dogs" **(Participant 1 – 40 years old)**

"They would literally tell us to go away and some of the people that have dogs would threaten us with dogs and tell us that if we continue, they may set their dogs on us. If we continued, he would call his dogs and again demand that we leave his yards. **(Participant 3– 39 years old)**

Another aspect of safety which some of the CHWs who viewed safety as a challenge was the fact that they were sometimes working too far away from the villages they were familiar with. This means that they required to be transported to those remote villages. The first concern therefore was the fact that the transportation situation was unsafe, and one respondent claims the vehicle they travelled was nearly involved in a car accident.

"The transport would be extremely crowded because we were too many. We would be so many that we would be like people going to a party. Some of the people would be going far and some to nearby villages and we would all be using the same transport. Therefore, the transport would be full because we had to also access villages that did not yet know about Covid". **(Participant 3 – 30 years old)**

"And we would have to get to some places by transport because it was far. One day even the car nearly had an accident. So, we were not safe when we had to travel to Dzwerani" **(Participant 5 – 32 years old)**

Another area of concern with regards to safety was that sometimes CHWs had to work in villages they were not familiar with. This would mean that they were at risk because they did not know what the dangerous areas in that place were. This unfamiliar place would pose different challenges such as remote gates that you cannot open in cases of danger and you have evacuated that home fleeing from danger and physical harm or violence (GBV) as well as general fear of not knowing the terrain, the community members and what they can do or have a record of doing.

"The transport would pick us up at 7am. This is unfamiliar territory, and they would throw us at the very end of the homes. We would be walking in the fields and in the bushes and in the idle of the cold winter". **(Participant 14 – 30 years old)**

"In some homes we would get remote-operated gates and we didn't feel too safe because they could lock us in" **(Participant 11 – 31 years old)**

"If we continued talking it could end in an argument. And we were operating under the law so if one says we should leave we would do so because you have no idea what this person was capable of" **(Participant 15 – 34 years old)**

"We were unfamiliar with the place and we didn't know the areas that are unsafe." **(Participant 16 – 44 years old)**

"It's not that am criticizing or judging men but when we enter a man's house I would be in fear because I don't know what that person thinks and thus, I wouldn't always feel safe especially because sometimes I would have to enter alone. That's why in many places we were encouraged to not walk alone. I would accompany my partner to the house they need to go to, and they would do the same for me. This is how we ensured we were safe so that if something happened the person. I was with would make sure the necessary help is obtained" **(Participant 1 – 32 years old)**

4.3.7. Withholding of information and withdrawal from the screening process

Few CHWs reported the challenge of participants withdrawing their participation from the screening. This was mainly at the old age groups. The reported cases were those where the community members did not have identity documents or refused to hand them over for fear of losing their social grants. In other instances the elderly group would be advised to withdraw from the study by their children or grandchildren for various reasons.

"Sometimes you would meet an old woman and they would gladly allow you to screen them. In the middle of the session their grandchild or child would come and inquire what you have been talking about. Once they found out that it is Covid related they would immediately tell you they don't want anything to do with Covid. They would say that we are the ones spreading Covid across the world and we have come to infect their parents and grandparents because they are vulnerable". **(Participant 11 - 31 years old)**

"Pertaining to the adults, they wouldn't even want to talk to us because they would think we have come to take away their pension grant". **(Participant 16 – 44 years old)**

"one challenge we encountered when we were screening includes when we went to a household with an old lady and an old man. Because when the vaccination process started, we began to focus on adults 60 years and above. When we told them, we were coming to screen them they didn't understand what that is. We had to inform that screening includes asking questions and them answering the questions. The old man refused but the old lady was willing. We completed the old lady screening, but the old man persisted with his resistance but later the old lady managed to convince him, and he agreed". **(Participant 12 – 34 years old)**

4.3.8 Unpaid COVID-19 risk allowances

Although few CHWs reported the issue of non-payment of their risk allowances as a challenge they encountered, those who did spoke about it vehemently. It seemed as if there had been a group of CHWs who received the promised money, as highlighted by one of the respondents. The issue, however on the risk allowance grant, seemed to be that the CHWs were promised an allowance on top of their normal salary, to compensate for the extra work they were doing during the COVID-19 pandemic and for the risks involved. This was further exacerbated by the fact that other health professionals, such as nurses and doctors, seemed to have received this allowance. This bothered the CHWs because they believed they were more at risk but received nothing and were essentially lied to by their employer.

"A few owe thought we could get compensation for the Covid screening related work but till now we haven't received a cent". **(Participant 5 - 32 years old)**

"We are not sure if the money is available or not what we know is that we have not yet received it. Perhaps others have received it, but fact remains that we were promised that there was money for this screening, but we haven't seen a cent of it". **(Participant 6 – 37 years old)**

"I wouldn't necessarily call it a circumstance. But we were promise a Covid risk allowance but till today I haven't seen a penny. We heard rumours that some of our colleagues elsewhere received it but not us". **(Participant 14 – 30 years old)**

"Our normal salary was never at any point disturbed. But am not talking about the salary here. This was for the risk related to Covid work. That's the one we heard that other received but we did not receive a cent of it". **(Participant 13 – 34 years old)**

4.3.9. Lack of understanding regarding the virus by the public

One of the challenges faced by CHWs was that there was too much disinformation and misinformation in the rural communities about COVID-19 and all aspects relating to it. The community also lacked, according to the CHWs, knowledge on the symptoms of COVID-19. This implied that a community member could think they had COVID-19 symptoms while they did not. This was clearly explained by Participants D and E.

"I remember one instance I personally encountered, I met a man who lived alone in house and upon explaining to him all the symptoms of Covid, he agreed that he had all those symptoms. Upon inquiring further, I was told that the cough that he had was not Covid but rather a result of his chain smoking." **(Participant 4 – 30 years old)**.

"The thing that made them think that we also have it, and we are spreading it is the fact that no one really understood Covid by then. They just assumed that the people from the clinic are already infected because they knew we work at the clinic" **(Participant 5 -32 years old)**

Much of the misinformation seemed to be due to conspiracy theories, hearsays, rumours and false narratives on COVID-19; for example, the rumour that the virus does not exist. Other instances involved misunderstandings in the news or on the radio about vaccines and screening. In some villages, the CHWs reported that they noticed a trend of being refused access, as if the people in that area had planned not give them access.

"Issues like in some houses you would see that they have absolutely no desire to hear us. It seems as if they hate the very person that sent us). They would insist that let Phophi Ramathuba (the MEC for Health) herself gather us and inform us herself. Then they would insinuate that we as CHW don't know a thing". **(Participant 6 – 37 years old)**

"One challenge I personally encountered was when I entered a certain home in Dzwerani, they blatantly told me to not even bother taking my papers out of the bag because they do not even want to hear what I had to say. They would say the virus doesn't even exist". **(Participant 10)**

"Some of the people paid too much attention to the radio because when the vaccination process started there were claims that vaccines cause blood clots. We would tell them that this is false information, and they should get vaccinated to protect their lives". **(Participant 12 – 34 years old)**

"Many didn't have knowledge because they were forced incorrect information by others. Like in one home in a certain village where went into and found them waiting for us at the gate as if they heard that we were coming. They immediately told us to go back and that they do not want to hear anything from us. And the next house also gave us the same attitude of resistance and so did the next. We then realised that this people had influenced each other to respond that way". **(Participant 12 – 34 years old)**

4.4 CONCLUSION

In this chapter, themes were used to categorise the findings and support them with quotations from the participants, as evidence. From the presented results, it is clear that CHWs were sometimes hindered from accessing households for data collection. In some cases, CHWs were sometimes thrown out of households because community members suspected that they were carriers of COVID. The findings also highlighted that some community members refused to divulge information during screening, furthermore, CHWs allowances were not paid and it inconvenienced them. In addition, the community seemed unclear about the knowledge and understanding of the virus. The findings of this study are discussed in chapter 5.

CHAPTER 5

DISSCUSSION OF THE FINDINGS, SUMMARY, RECOMMENDATIONS, LIMITATIONS AND CONCLUSIONS

5.1. INTRODUCTION

In the previous chapter, data was analysed and interpreted. Based on an analysis of the data collected from community members. In this chapter, a summary of chapter 1 to 4 is given. Findings were discussed in relation to the research questions and objectives as set out in chapter 1. This is done by referring to the literature study in chapter 2 and the research data reported in chapter 4. Finally, recommendations and conclusions were drawn. This chapter discusses the findings of the study and compares them to recent literature and finding of other studies. The chapter also gives recommendations based on the findings of the study.

5.2. DISCUSSION OF THE STUDY FINDINGS

The following themes emerged following thematic data analysis: denial of access to households by community members, community members' fear of infection by CHWs, lack of PPEs, pressure due to daily quotas which they had to meet, CHWs fear of getting infected by community members, safety and security issues, withholding of information and withdrawal from the screening process, and COVID-19 risk allowances being unpaid.

The most prevalent challenge for CHWs was getting access to homes due to either being chased out of many homes once they revealed who they were or being kept outside the locked or remote operated gates. A few of these cases where cases were the CHWs were forcefully removed from the premises or at least rudely reprimanded or threatened with physical violence of dogs. In one of the cases reported access was denied because of the inconvenience of the time because the homeowner was leaving the house, however this was not a norm. The challenges about being denied access are also highlighted and corroborated in a study conducted in Ghana by Mash, Goliath, and Perez (2020) who highlight challenges CHWs must face in different areas. Mash et al (2020) does not necessarily specify the different situations of rejection that the CHWs had to face but acknowledges that some homes were not only unreachable, but the communities may not have wanted any contact with the CHWs. In the

South African context, Nchasi et al (2022) report that South Africa citizens feared for their lives to an extent that they would refuse CHWs access to their homes in fear of contracting the virus.

This study found that majority of the CHWs encountered numerous incidents where community members were afraid of being infected with the virus through contact with the CHWs. In such cases, community members accused the CHWs of being the ones intentionally or inadvertently spreading the virus. The study also found that there was a belief in the communities that the CHWs were government agents sent to spread COVID-19 to curb population growth. As a result, many community members were reluctant to come into contact with CHWs, for fear of getting infected. Olateju, Olufunlayo, MacArthur, Leung and Taylor (2022) concur that members of the community fear getting infected by CHWs. This fear can be attributed to misinformation and disinformation about the virus which was circulating on social media as well as accompanying conspiracy theories, including the belief that there is a depopulation agenda by the government (Friedman, 2020).

From the study findings, it is evident that most of the CHWs did not have sufficient PPEs for the work they were doing in the communities. This is because the nurses who were screening in the hospitals had been supplied with aprons and they believed they were more at risk than the nurses, and thus needed to be supplied with aprons, too. The study also found that the CHWs felt that they did not have enough sanitisers, as there were cases where they had to share one bottle of sanitiser. It is evident from the findings that most of the CHWs who believed they lacked PPEs also believed they lacked masks, as they would use one disposable mask all day at more than 20 different homes. In a few of such cases, the CHWs reported that they were also using reusable masks, which they had to wash every evening because they were not supplied with enough disposable masks.

The shortage of masks or other PPEs was not entirely a South African problem, or one faced by developing countries, only; rather, developed nations, such as the United Kingdom also faced this challenge (Nyashamu, Pfende and Ekpenyong, 2020). Cook (2020) concurs that PHE (Public Health England) recommended the re-use of PPEs in instances where there was a shortage or need. According to Grimm (2020) the shortage of PPEs created much panic and confusion in the public, as it did with the CHW, in the South African context. However, it is important to note that the re-use of PPEs, as some of the CHWs were compelled to do, was not only unsafe but in violation of the World Health Organisation's stipulations. The findings of

the current study concur with Nyashanu (2021), who writes that frontline workers complained that the severe shortage of PPEs made it difficult for them to discharge their duties during the COVID-19 pandemic.

This study also found that meeting daily quotas in terms of screening was a challenge for CHWs. The number of people they would have to screen per day varied, as different CHWs provided different numbers. There was a discrepancy between daily screening numbers. For instance, participant 4 reported having screened 100 people per day, whilst the actual number seemed to be around 80. The CHWs who raised this issue seemed to believe that this was quite a daunting task, as they would encounter unpredictable challenges at most homes, and thus this quota was difficult to reach daily for them. According to Nachega, Grimwood, Mahomed, Fatti, Preiser, Kallay, Mbala, Muyembe, Rwagasore, Nsanzimana, Ngamije, Condo, Sidat, Noormahomed, Reid, Lukeni, Suleman, Metea and Zumla (2021), South Africa had approximately 28 000 Community Healthcare Workers who had been deployed for screening communities. By the end of April 2020, the CHWs had screened 6 million people and referred about 42 000 people for further testing. This explains the pressure to reach a daily quota, because this number would not be adequate for the South African population, with its 50 million citizens, most of which still live in rural and inaccessible areas (Nachenga et al. 2021). Further, Nkengasong (2021) correctly concurs that door-to-door contact-tracing required 'increased staffing' and an 'extensive human resource mobilization' process. The study also suggests that this may have not been possible because of unpreparedness for the pandemic and lack of funding (Nkengasong, 2021).

The current study also found that the majority of the CHWs were in constant fear of being infected by the COVID-19 virus when they were screening the community members. This was exacerbated by the fact that some of the people who had been in COVID-19 hotspots such as Gauteng had either been laid off from their jobs or were temporarily sent home due to lockdown restrictions. The study also found that the biggest fear amongst all the CHWs in this category was getting infected and subsequently infecting their families. In a study conducted in Kwa-Zulu Natal, NKosi et al (2021), report high anxiety and fear among healthcare professionals who were on the frontline. According to the study findings, the fear was not only for infection but also of whether the virus was treatable, especially in the early stages of the outbreak in England. DeJean et al (2020) corroborate this notion, by highlighting that this form of fear is a normal reaction to any pandemic. El Alama et al (2020) note that similar fear of apprehensiveness and anxiety was prevalent when the HIV pandemic began.

The findings show many safety and security issues associated with community screening. For example, many CHWs lamented being terrorised by dogs; in one case, a CHW in one region was reportedly bitten by dogs. The study also highlighted that another source of danger for the CHWs was transport. This is because some CHWs were ferried to distant places that were overcrowded and, in some cases, not in the best conditions. These modes of transport would sometimes have to take CHWs to distant villages. The study also found that few CHWs reported feeling unsafe when going into the houses occupied by males only due to gender-based violence such as rape and other factors. The study also found that most CHWs were uncomfortable and apprehensive about working in villages that were too far from their homes. The participants reported being afraid when they were amongst people they did not know and when in unfamiliar areas.

Walters, Downey, Subah, Ly, Hirshchhorn and Panjabi's (2021) findings on CHWs' role during aa COVID-19 outbreak emphasise the importance of the physical safety of CHWs when carrying out their duties. Although the study does not mention the safety risks that the CHWs listed, it does cite examples of nations where there are such safety needs. One of the countries where the safety of CHWs was listed as a concern is Liberia, where some CHWs were physically harmed in communities (Walters et al., 2021). In the current situation, CHWs in South Africa have not reported many cases of grievous bodily harm or at least as much as other African countries that have CHWs (Walters et al., 2021).

The study found that there were few cases where community members would withdraw from participating, especially the elderly, who would consent to participate but later withdraw on the advice of their children or grandchildren. The main reason for this withdrawal was fear of losing their social grants or due to conspiracy theories. The issue of withdrawing consent is closely tied to the concept of informed consent. A study by Gogtay, Sheth, Maurya, Belhekar and Thatte (2021) reviewed and evaluated the extent of consent refusals and consent withdrawals during the COVID-19 pandemic and found that the basis for most consent withdrawals or refusals were often out of fear of harm. These findings concur with the current study, as many participants refused to participate or withdrew from participating out of fear of negative consequences. The Gogtay study (2021) however does not report on consent withdrawal in instances where elders are forced to withdraw by their grandchildren or children.

The study also found that a few participants had serious problems with the non-payment of their COVID-19 risk allowance, although their basic salary remained intact. The study found

that though there were many participants who reported being unpaid, some of CHWs in other areas had received their allowances due to the maladministration of finances and lack of effective communication during the pandemic. This may be partly the reason why not all CHWs mentioned it as a challenge. Williams, Scarpetti, Bezzina, Vincetti, Grech, Sowada, Furman, Galazka-Sobotko and Maier's review (2020) of the financial support that European countries gave frontline health workers concurred with what the CHWs were reporting. For example, in Malta, healthcare workers continued receiving their full basic salary even when they were not working like when they were not exposed to infection or needed to take rests. The CHWs in this study reported that they were getting similar financial support. Williams et al (2021:67) report that in Poland, "salaries of healthcare workers were supplemented with an allowance to compensate them for being exposed to patients who had COVID-19". This is one of the aspects that the CHWs reported to not have received the supplement and bemoaned how such an allowance was promised but never paid.

The study findings also show that there is excessive misinformation about the COVID-19 virus in the public domain. Furthermore, there were many members of the community who believed that COVID-19 does not exist, whilst some believed that it was part of the government's depopulation agenda. A similar finding was reported by Desta and Mulugeta (2020), who highlighted that one of the most prevalent conspiracy theories was that COVID-19 does not exist. Uscinki, Enders and Klofstad (2020:23) point out that "there is a misconception that COVID-19 was being spread intentionally by governments in some form of depopulation agenda". Larson (2020) concurred and pointed out that there were many claims that COVID-19 was a bio-engineered virus that was designed to cause harm on human beings. The current study also found that many community members were rude to CHWs and would despise them and the work they were doing and viewed them as unknowledgeable about the virus, as nurses or other hospital professionals. Stein, Ometa, Shetty, Katz, Popitiu and Brotherton (2021) assert that conspiracy theories and disinformation are 'omnipresent in traditional and modern societies', and it should not be a surprise that the COVID-19 pandemic was shrouded with a plethora of misinformation reaching the public. Friedman (2020:56) implies that "conspiracy theories have fascinated societies in general for ages and may at times be harmless or entertaining but may be incredible devastating when relating to public health topics since many lives are at stake".

5.3 SUMMARY OF THE STUDY FINDINGS

The study showed that the most prevalent challenge for CHWs was getting access to homes. Many of the CHWs reiterated the experience of either being chased out of many homes once they revealed who they were or being kept outside the locked or remote operated gates. Vicious dogs in the yards also posed a constant risk to the CHWs. Related to this problem was the issue of participant withdrawal from the study, which greatly affected the smooth-running of the research.

In addition, the study found that most of the CHWs were in constant fear of being infected by COVID-19 when they were screening the community members. This was exacerbated by the presence of some of the people who had been in COVID-19 hotspots, such as Gauteng. Another related issue is that most CHWs felt that they did not have sufficient PPEs for the work they were doing in the communities. The fact that CHWs had daily quotas to meet for screening made this challenge even worse.

The study also found that a few CHWs had not been paid their allowances. However, in other areas there were no such problems. Finally, the study also showed that there is excessive misinformation about the COVID-19 virus in the public domain, especially those pertaining to the existence of the Corona virus as well as conspiracy theories.

5.4. RECOMMENDATIONS OF THE STUDY

The following are the recommendations of the study:

5.4.1. Recommendations for the Department of Health

- Telephonic screening processes should be put in place, to ensure that members of the community who are not tech savvy may be screened through a telephone call, to avoid contact, which may again increase the spread of this or other future pandemics.
- The procurement of PPEs should be facilitated, to ensure that the PPEs reach the CHWs in time, also to avoid sharing of sanitiser bottles or re-use disposable masks.
- The Department of Health should engage the public in a more robust traditional media campaign (Newspapers, Radio and Television) because of their ability to reach the elderly generation, and -through them- give prior notice before CHWs visit them and

give details of the activities the CHWs will do at the community members' houses, so that the public is not reluctant about letting them in.

- The use of social media platforms (Facebook, Twitter, Instagram, etc.) to disseminate information to the youth about the virus and programmes, such as the screening process, is also essential.
- Due to financial constraints, it may be understandable that the Department of Health does not have enough funds to employ more CHWs. However, efforts should be made to start a volunteer campaign or hire part-time CHWs during screening.
- The paying of CHW risk allowances should be implemented, as promised, so that the CHWs remain motivated to work harder.
- The modes of transport for CHW to different villages should be improved, to make travelling to remote areas safer and options like outsourcing these duties should be considered.

5.4.2. Recommendations for future research

- There is a great need for research work against conspiracy theories about the COVID-19 virus because they are responsible for much of the disinformation in the public domain.
- Future researchers should be encouraged to research and develop models for using media and social media in a more effective way, to help speed up screening processes.
- More quantitative research should be undertaken to get obtain a broader understanding of the prevalence of some of the challenges CHWs encounter when screening.
- It Is also advisable for research on the challenges of CHWs to be done on a national scale so that a broader understanding of the problem in a national scale could be obtained.

5.5 STUDY LIMITATIONS

The study was conducted in the Vhembe District of Limpopo Province. Therefore, the challenges of CHWs there may be different from those in other areas of the country.

5.6 PLAN FOR DISSEMINATION OF THE FINDINGS

The dissertation report will be submitted to the University of Venda Library repository. A soft copy of the dissertation will be submitted to the Limpopo Provincial Department of Health and the Department of Health in Vhembe District. Two articles based on the findings will be published in a peer-reviewed scholarly journal.

5.7. CONCLUSION

The researcher intended to contextualise the findings of this study and discuss its findings and compare them with what other studies or reviews have found pertaining to the challenges that CHWs or frontline healthcare workers face during contact-tracing and screening. Generally, CHWs face many challenges during COVID screening in the communities. Many of these problems can be resolved using technology, strategic innovative thinking, and reasonable financial investment into the project.

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APPENDIX A: INFORMED CONSENT

LETTER OF INFORMATION

Title of the Research Study: **Covid-19 household screening: challenges experienced by community health care workers in Thulamela Municipality of Vhembe District, Limpopo Province.**

Principal Investigator/s/ researcher : (*Netshiheni Salthiel Fulufhedzani MPH Student*)

Co-Investigator/s/supervisor/s : (*Ntsieni Mashau, PhD*)

: (Bumani Manganye, PhD)

Brief Introduction and Purpose of the Study: This research study will be conducted in partial fulfilment of the requirements for the degree of Master of Public Health at selected Primary Health Care facilities of Thulamela Municipality in Vhembe District Limpopo. The purpose of this study is to explore perceived challenges experienced by community health care workers during COVID-19 outbreak household screening in Thulamela Municipality of Vhembe District, South Africa.

Outline of the Procedure: In this study, you are kindly requested to participate in the few questions that I will ask you. Probing and follow up question will be asked to get the comprehensive information from the participants. The interview will last for around 30-50 minutes using semi-structured interview with participants and will be conducted in special room within primary health care facility. This study it is for academic purpose. Kindly note that for you to be in this study it is voluntary, and you are not obligated to participate. However, it will be of great pleasure for you to share you are thoughts and experiences with me. For to be part of this study you must be volunteering and willing to participate in the study, age must from 20 to 55 years old, must be working as CHWs linked to PHC facilities and must have participated during the Covid-19 household screening.

Risks or Discomforts to the Participant: risks and discomforts towards participants are not expected to happen in this study

Benefits: there are no personal benefits for participation in this study. Participation that you will offer may benefit department of health to gain deep information and take implementations into consideration

Reason/s why the Participant May Be Withdrawn from the Study be kindly informed that if you have personal reason such as feeling sick during the study, you may withdraw any time you wish to do so because you have the right to do so, and nothing can be used against you

Remuneration : you will receive no remuneration for you are participation in this study

Costs of the Study: you will not be expected to spend any of you are personal for transport or anything as study will be conducted at your workplace

Confidentiality : I ensure you that confidentiality with be maintained in this study. The responses that you will provide will only heard and read by those who are involved in this research. Names of participants will not be used in this study. Also be kindly reassured that the response information you provided through tape record and notes taken will be kept on safe and will be locked.

Research-related Injury: there are no foreseeable research–related injuries for this study

Persons to Contact in the Event of Any Problems or Queries:

Netshiheni Salthiel Fulufhedzani, (Student No: 14000816), (Cell: 0782783185), my supervisor N.S Mashau (Office: 015 962 8892.) or the University Research Ethics Committee Secretariat on 015 962 9058. Complaints can be reported to the Director: Research and Innovation, Prof GE Ekosse on 015 962 8313 or Georges Ivo.Ekosse@univen.ac.za

APPENDIX B: CONSENT

Statement of Agreement to Participate in the Research Study:

- I hereby confirm that I have been informed by Netshiheni Salthiel Fulufhedzani, about the nature, conduct, benefits, and risks of this study.
- I have also received, read, and understood the above written information (Consent Letter) regarding the study.
- I am aware that the results of the study, including personal details regarding my sex, age, date of birth, initials and diagnosis will be anonymously processed into a study report.
- In view of the requirements of research, I agree that the data collected during this study can be processed in a computerized system by the researcher.
- I may, at any stage, without prejudice, withdraw my consent and participation in the study.
- I have had sufficient opportunity to ask questions and (of my own free will) declare myself prepared to participate in the study.
- I understand that significant new findings developed during this research which may relate to my participation will be made available to me.

Full Name of Participant	Date	Time	Signature
I, Netshiheni Salthiel Fulufhedzani	08/03/2023	08H00	

(Netshiheni Salthiel Fulufhedzani student no: 1400016) herewith confirm that the above participant has been fully Informed about the nature, conduct and risks of the above study.

Full Name of Researcher

Netshiheni Salthiel Fulufhedzani Date**:**Signature**:**

APPENDIX C: LETTER TO REQUEST PERMISSION FROM LIMPOPO DEPARTMENT OF HEALTH

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

Department of Health

Ref : LP_2021-10-013
Enquires : Ms PF Mahlokwane
Tel : 015-293 6028
Email : Phoebe.Mahlokwane@dhsd.limpopo.gov.za

Netshiheni salthiel fulufhedzani

PERMISSION TO CONDUCT RESEARCH IN DEPARTMENTAL FACILITIES

Your Study Topic as indicated below;

Covid-19 household screening: challenges experienced by community health care workers in Thulamela municipality of Vhembe district, Limpopo province

1. Permission to conduct research study as per your research proposal is hereby Granted.
2. Kindly note the following:
   a. Present this letter of permission to the institution supervisor/s a week before the study is conducted.
   b. In the course of your study, there should be no action that disrupts the routine services, or incur any cost on the Department.
   c. After completion of study, it is mandatory that the findings should be submitted to the Department to serve as a resource.
   d. The researcher should be prepared to assist in the interpretation and implementation of the study recommendation where possible.
   e. The approval is only valid for a 1-year period.
   f. If the proposal has been amended, a new approval should be sought from the Department of Health
   g. Kindly note that, the Department can withdraw the approval at any time.

Your cooperation will be highly appreciated

pp **Head of Department** **Date** 11/11/2021

Private Bag X9302 Polokwane
Fidel Castro Ruz House, 18 College Street. Polokwane 0700. Tel: 015 293 6000/12. Fax: 015 293 6211.
Website: http/www.limpopo.gov.za

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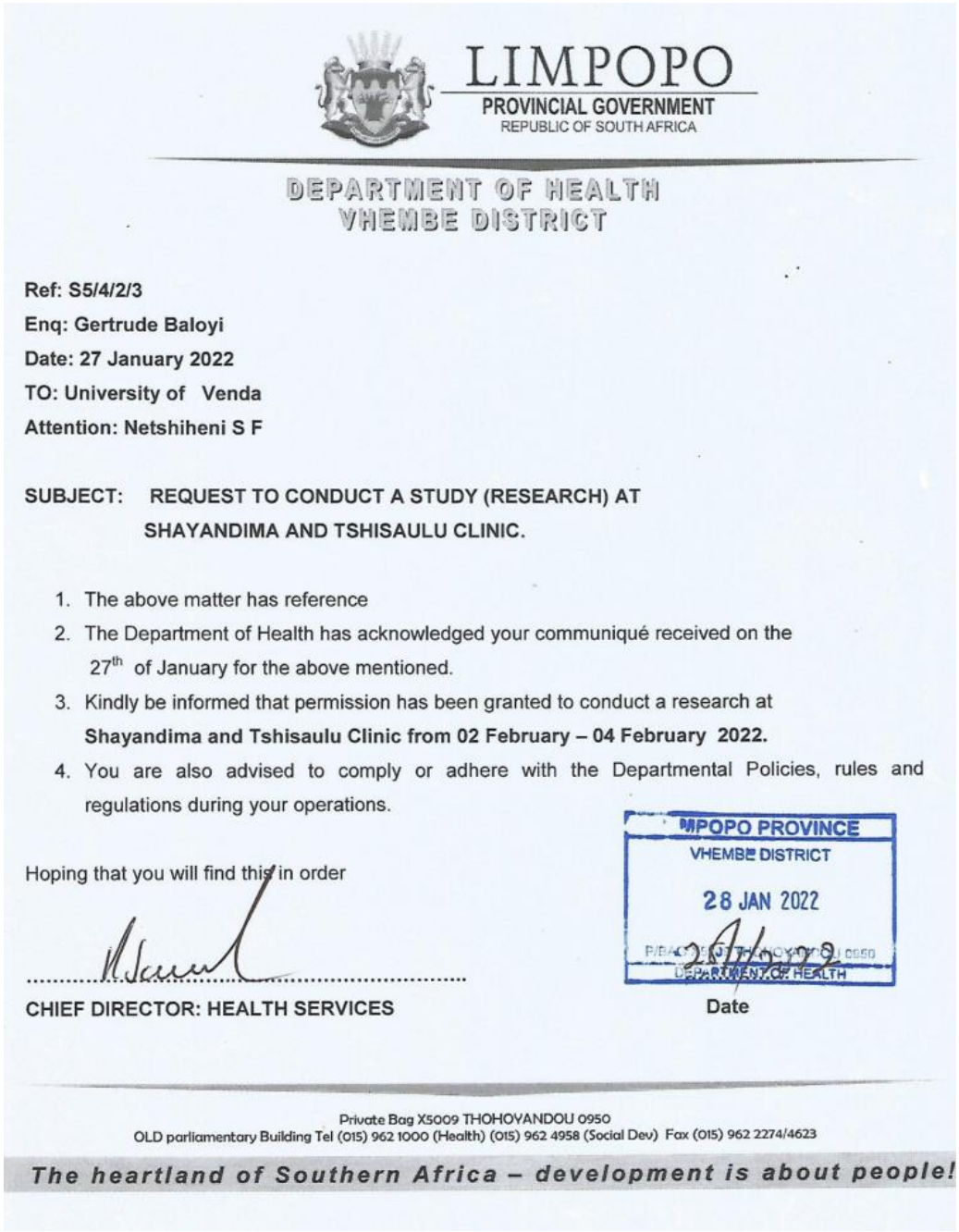
APPENDIX D: PERMISSION LETTER (VHEMBE DISTRICT DEPARTMENT OF HEALTH)



LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF HEALTH
VHEMBE DISTRICT

Ref: S5/4/2/3
Enq: Gertrude Baloyi
Date: 27 January 2022
TO: University of Venda
Attention: Netshiheni S F

SUBJECT: REQUEST TO CONDUCT A STUDY (RESEARCH) AT SHAYANDIMA AND TSHISAULU CLINIC.

1. The above matter has reference
2. The Department of Health has acknowledged your communiqué received on the 27th of January for the above mentioned.
3. Kindly be informed that permission has been granted to conduct a research at **Shayandima and Tshisaulu Clinic from 02 February – 04 February 2022.**
4. You are also advised to comply or adhere with the Departmental Policies, rules and regulations during your operations.

MPOPO PROVINCE
VHEMBE DISTRICT
28 JAN 2022
DEPARTMENT OF HEALTH

Hoping that you will find this in order

.....
CHIEF DIRECTOR: HEALTH SERVICES

Date

Private Bag X5009 THOHOYANDOU 0950
OLD parliamentary Building Tel (015) 962 1000 (Health) (015) 962 4958 (Social Dev) Fax (015) 962 2274/4623

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APPENDIX E: TRANSCRIPT

R= Researcher

P= Participant

R: What challenges did you encounter when where screening members of the public).

P2: Another issue we encountered was that some participants would not want to be open about some of the symptoms they were encountering. We would probe what symptoms they have so that if suspect anything we can refer them to the clinic. Sometimes the same person you screened before will call you if you pass through the same village and you would have to screen them again.

R: which other challenges were you coming across in those times?

Sometimes you would go to a home and must shout at the gate for them to come out and then when they come out, they would assume that you have Covid and you are going to spread it to them and their whole household. Some homes also have dogs and as you are shouting at the gate the dogs will be barking at you. They would insist that the dogs won't stop barking at us because we keep going up and down the streets and we would have to explain that this is our job because we have been tasked to screen everyone in the community so that we can save lives. They would sometimes suggest that we leave, and they would consider being screened later and that would mean we have passed without screening the person. Other people are very understanding when you must screen them, they will even call their whole family to come for the screening. That was great because it shows they care for their health. If they don't have Covid symptoms we will inform them and if they do, we are able to write them referral letters to go to the nearest clinic. Even if the symptoms were not Covid and the individual is found to not have Covid they atleast have a guarantee that they are safe for them and their family.

R: the condition was very complicated more particularly that time. I heard you touching on the subject of being chased from other households, who were assuming you will contaminate them with Covid. Can you please go into detail on what was occurring for the community to know, why they are saying you will bring them Covid, please elaborate further?

P2: Some people just didn't understand the communication. It was clearly announced on the radio that there will be people going around screening for Covid, but some people misunderstood that message and assumed it meant someone will be coming to infect them with Covid. Only when they get feedback from people who got screened do they begin to understand that we are only coming to see if they have symptoms. Some also fear that if they are found to have Covid they could be chased away from their village or stigmatised and that's not what we came to do. They miss the fact that we are coming to help people so that we can reduce the spread of the virus.

R: what other challenges took place while you were going around screening people at their households.

I remember one day I arrived at an old granny's house and she was leaving her house and when we explained what we came to do she plainly told us that she is on her way out and she doesn't not have any interest in hearing or participating in anything Covid related in my house. She closed her door and didn't want to even come out. She presumed we will be leaving Covid behind when we left. We thought maybe she would change her mind and come and open the door, but she didn't.

APPENDIX F: ETHICAL CLEARANCE

ETHICS APPROVAL CERTIFICATE

RESEARCH AND INNOVATION
OFFICE OF THE DIRECTOR

NAME OF RESEARCHER/INVESTIGATOR:
Ms FS Netshiheni

STUDENT NO:
14000816

PROJECT TITLE: COVID-19 household screening: challenges experienced by community health care workers in Thulamela municipality of Vhembe district, Limpopo province.

ETHICAL CLEARENCE NO: SHS/21/PH/05/2708

SUPERVISORS/ CO-RESEARCHERS/ CO-INVESTIGATORS

NAME	INSTITUTION & DEPARTMENT	ROLE
Dr NS Mashau	University of Venda	Supervisor
Mr BS Manganye	University of Venda	Co- Supervisor
Ms FS Netshiheni	University of Venda	Investigator – Student

Type: **Masters Research**
Risk: **Minimal risk to humans, animals or environment (Category 2)**
Approval Period: **August 2021 – August 2023**

The Human and Clinical Trails Research Ethics Committee (HCTREC) hereby approves your project as indicated above.

General Conditions
While this ethics approval is subject to all declarations, undertakings and agreements incorporated and signed in the application form, please note the following.

- The project leader (principal investigator) must report in the prescribed format to the REC:
  - Annually (or as otherwise requested) on the progress of the project, and upon completion of the project
  - Within 48hrs in case of any adverse event (or any matter that interrupts sound ethical principles) during the course of the project.
  - Annually a number of projects may be randomly selected for an external audit.
- The approval applies strictly to the protocol as stipulated in the application form. Would any changes to the protocol be deemed necessary during the course of the project, the project leader must apply for approval of these changes at the REC. Would there be deviated from the project protocol without the necessary approval of such changes, the ethics approval is immediately and automatically forfeited.
- The date of approval indicates the first date that the project may be started. Would the project have to continue after the expiry date; a new application must be made to the REC and new approval received before or on the expiry date.
- In the interest of ethical responsibility, the REC retains the right to:
  - Request access to any information or data at any time during the course or after completion of the project,
  - To ask further questions; Seek additional information; Require further modification or monitor the conduct of your research or the informed consent process.
  - withdraw or postpone approval if:
  - Any unethical principles or practices of the project are revealed or suspected.
  - It becomes apparent that any relevant information was withheld from the REC or that information has been false or misrepresented.
  - The required annual report and reporting of adverse events was not done timely and accurately,
  - New institutional rules, national legislation or international conventions deem it necessary

ISSUED BY:
UNIVERSITY OF VENDA, RESEARCH ETHICS COMMITTEE
Date Considered: July 2021

Name of the HCTREC Chairperson of the Committee: PASCAL O. BESSONG

Signature:

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