Healthcare seeking behaviours of homeless substance users residing in the Gauteng Province of South Africa during COVID-19 lockdowns.

By

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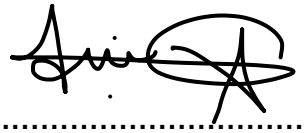
DECLARATION

I, Mayibongwe M.A Mnkandla hereby declare that this study titled *"**Healthcare seeking behaviours of homeless substance users during the Covid-19 lockdowns in Gauteng, South Africa**"* is my work and has not been submitted previously for a degree at this or any other university. It is my work in design and in execution, and all reference material contained herein has been duly acknowledged.



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Student signature **Date**

ABSTRACT

Homelessness continues an upward trajectory of being a global social security problem affecting both developed and developing countries. The World Population review estimates that Nigeria has the highest numbers of homeless people in the world in 2023, followed by Pakistan, Egypt, Syria, among others, whereas the Human Sciences Research Council estimates that between 100,000 and 200,000 people live on the streets of South Africa. Gauteng province alone accounts for 25 000 with Johannesburg having 15, 000 while Tshwane has 10,000. Studies have shown that homeless people have a high level of morbidity and mortality with an average life expectancy of 45 - 47 years old among men living more than ten years on the street. Evidence suggest that homeless people are often denied access to even the most basic assistance including healthcare, which could have been worse during COVID-19 pandemic. This study assessed the homeless substance users' healthcare seeking behaviors during the Covid-19 lockdowns in Gauteng, South Africa. A qualitative approach using an exploratory design, assessed referrals based on suffering from symptoms of Covid-19 during the lockdown period between 2020 and 2022. Data was collected from 25 homeless substance users in the City of Tshwane in Gauteng, through unstructured interviews. After transcribing intelligent verbatim and translating recordings, the principal researcher did thematic data analysis without computer software data analysis programmes. Three themes based on the study objectives included, types of healthcare services used, the determinants of the health seeking behaviours adopted by homeless substance users, and challenges experienced while seeking healthcare. Of the twenty-five participants, ranging from twenty-one to fifty years old, thirteen suffered from Covid-19 symptoms. Five used formal healthcare systems and eight informal healthcare systems. Older participants accessed healthcare services, while less of the younger population used them. Challenges faced entailed marginalization, stigmatization and lack of social support. Since this study was delimited to Gauteng province, findings cannot be generalised nationally. The study can also be carried out in other provinces with high number of substance users such as the Western Cape. The Department of Social Development should include capable substance users in training healthcare programmes aimed at persuading this key population group to use formal health care.

Keywords: Covid-19, Health promotion, Healthcare seeking behaviours, Homeless, Substance users.

DEDICATION

This study is much dedicated to homeless substance users who are battling for their lives in the middle of pandemics and endemics.

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I would author another long dissertation of acknowledgements, but my dear ones are directed to the following:

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LIST OF ACRONYMS AND ABBREVIATIONS

AIDS : Acquired Immunodeficiency Syndrome

COREQ : Consolidated Criteria for Reporting Qualitative Research

COSUP : Community Oriented Substance Use Programme

HIV : Human Immunodeficiency Virus

HSRC : Human Sciences Research Council

NDoHSA : National Department of Health South Africa

NICD : National Institute of Communicable Diseases

NGO : Non-Governmental Organizations

PRISMA : Preferred Reporting Items for Systematic reviews and Meta-Analyses.

PWUD : People who use drugs.

SAMHSA : Substance Abuse and Mental Health Services Administration

SAPS : South African Police Services

TB : Tuberculosis

WHO : World Health Organisation

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CHAPTER ONE

OVERVIEW OF THE STUDY

1.INTRODUCTION AND BACKGROUND

1.1 Introduction

Health seeking behaviour is any action undertaken by individuals who perceive themselves to have a health problem or to be ill for the purpose of finding an appropriate remedy [1]. Accessing good healthcare seeking behaviour is important for prevention, early diagnosis, and management of disease conditions. It helps in reducing cost, disability, and death from diseases [1]. Regarding substance users, stereotypes have been made suggesting poor general healthcare seeking behaviors about diseases such as tuberculosis and HIV/AIDS. Covid-19 is a novel communicable disease, health seeking behaviours from different population groups also need to be documented by researchers. This section of the mini dissertation presents the background, problem statement, significance, rationale, purpose, objectives, and functional definition of terms of this study.

1.2 Background

Homelessness continues an upward trajectory of being a global social security problem affecting both developed and developing countries [2]. There were 274 000 homeless people in December 2021 and 365 535 in 2023 in England [3]. In America, 582,462 individuals are experiencing homelessness in 2023 [3]. Nigeria has the highest numbers (24 400 000) of homeless people in the world followed by Pakistan (20 000 000), Egypt (12 000 000), and Syria (6 568 000) [4]. Grenada has the lowest (68) numbers of homeless people, followed by Ivory coast (117). Tenai, et al [2] noted that, people of all ages, young and old, and mothers with young children live in the streets as homeless people. On the contrary, countries such as Jordan, Cuba Bhutan and Liechtenstein do not have people living in the streets without homes in 2023.

The Human Sciences Research Council (HSRC) estimates that between 100,000 and 200,000 people live on the streets of South Africa [5]. Accurate statistics are non-existent though Mitchley [6] states that there may be 50 000 people living in the streets of Gauteng. Shoba [7] estimates that Johannesburg has 15 000 people in the streets with Tshwane having 10,000. According to Shoba[7] , Non-Governmental Organizations (NGOs)indicate that 14,000 people in Cape Town are homeless, the number growing exponentially since the start of the Covid-19 pandemic due to job losses and other knock-on effects of the virus.

The Coronavirus disease 2019 (Covid-19) has been taking its toll in South Africa with different waves being experienced in 2021 and 2022. Covid-19 is a respiratory disease caused by SARS-Cov2-2019 which has resulted in 205 million infections and over 4 million deaths globally. Currently, the South African National Institute of Communicable Diseases (NICD) reports cases in Gauteng to be the highest, approaching the million mark and fatalities approaching 20,000 [8]. Cases in the Tshwane Region of Pretoria and Centurion were notable before the 3rd wave, noticing a rise also in the number of people hospitalized who were critical. This also spread to Tshwane University of Technology students in the main Central Business Distrct. Covid-19 is prevalent in wintry conditions, resulting in symptoms like influenza. These include fever, coughing, sneezing and an irritated throat. Transmission is mostly through contact with infected individuals and surfaces. However, evidence has shown that the delta strand is more infectious, resulting in the rapid spread of infections with a prevalence of 0.75 and 97% more transmissibility compared to the novel strain [9]. Information on cases based on occupation is barely accessible and is based on main geographical areas. Other insignificant means of spreading are still to become known as public health advances. Effective means of preventing the spread of Covid -19 among individuals entail physical distancing, wearing of masks, avoiding contact with potentially infected surfaces and constant disinfection.

Due to the national lockdown instituted by the South African government on 27 March 2020, the Disaster Management Regulation Section 11 (d) mandated the state to create temporary shelters for the homeless and authorized enforcement officers to forcibly evacuate people from the streets to preserve their own and others' lives. This legislation also mandated the provision of temporary sites to prevent transmission and enable treatment for people exposed to or infected with the new coronavirus who were unable to self-quarantine or self-isolate. Thus, many people living in the streets of Gauteng were placed in temporary shelters identified by the Department of Social Development. However, identifying and moving homeless people became repetitive since many were abscond from the temporary shelters [10]. Some were leaving shelters because of substance abuse and subsequent cravings, and others preferred to keep to their small community. According to Mitchley [11], temporary shelters faced the challenge of substance abuse with some homeless people suffering from withdrawal symptoms, which at times manifested in aggressive behaviors and violence.

Homeless people easily access drugs, with abuse being a survival measure to escape the reality of not having any form of habitation and issues arising [2]. Makiwane et al [12] postulate that robbery and drug trafficking are the most dominant survival systems for the homeless. Substance use cases have been rising globally with people falling prey to its addiction. Around the world, approximately 275 million people use drugs, with over 36 million succumbing to

drug disorders, while in South Africa 15% of the country's population is associated with drug use [13]. In Gauteng, in the Atteridgeville area, Moodley [14] noted the lifetime prevalence rates for substances to be 51.4% (95% confidence interval (CI) 41.5 - 61.5%) for alcohol, 25.2% (95% CI 17.1 - 33.3%) for cigarettes and 13.2% (95% CI 8.3 - 18.2%) for cannabis among secondary school learners. Alcohol has the lowest mean age of initiation at 14.6 years (standard deviation 2.0). About 55% of deceased medicolegal cases (2003-2012) autopsies showed the presence of one or more illicit drugs in Pretoria [15]. This shows that substance users, especially homeless people with them being excluded from mainstream social structures, are often susceptible to a lot of health risks including deaths.

Access to health care and social services is one of the five primary demands contained in the homeless manifesto launched by the National Homeless Network in South Africa [7]. Despite the progress in improving health outcomes, most African countries still face challenges in providing adequate healthcare services, particularly to the vulnerable. Of particular concern is that the homeless are vulnerable to communicable respiratory diseases (such as Covid -19) with low chances of accessing healthcare services [11]. One of the reasons for non-access to health services among the homeless is that for many the daily struggle for shelter, food, and clothing prevents them from viewing health as a priority. Researchers categorize not prioritizing health as a notable negative health seeking behavior. Healthcare seeking behaviors are actions undertaken by individuals suspecting themselves of having a health condition to consult health care services [16]. Postponing health as a priority is worrying in relation to communicable diseases (such as Covid -19) as an increase in infection is prone to happen upon late access to healthcare attention, resulting in prospective mutations and intensity of the pandemic [17].

Organizations such as TB/HIV Care have rolled out initiatives regarding reducing transmission of HIV/AIDS using syringes, and distributing free syringes and needles to substance users [18]. This is a proactive measure to consider individuals who are socially compromised in taking the initiative to seek medical help for infections. The Community Oriented Substance Use Programme (COSUP) was implemented with the City of Tshwane Metropolitan Municipality and Gauteng Department of Health's Tshwane District in South Africa together with the University of Pretoria using methadone to manage drug use withdrawal effects in temporary shelters during Covid-19 lockdowns. However, because it is expensive, its intake fluctuated leading to some homeless escaping back to the informal settlements and streets where access to drugs is accessible, thus postponing health care as a priority. The access to basic health right stipulated in the South African Constitution, is blur for the homeless as some do not possess identity documents, making it hard for them to be attended in health care facilities [19].

Global statistics reports that substance users` mortality rate is fueled by the wide gap between the onset of disease symptoms and seeking relevant effective medical attention [20]. Globally, substance users succumbing to diseases has risen to 15%, from tuberculosis to HIV/AIDS and seasonal flu [21]. Various socioeconomic factors play a pivotal role in influencing such behaviors patterns in general. In India, Dubey [22] noted that factors contributing to poor healthcare seeking behaviors are linked with populations which have fallen prey to drug addiction. In South Africa, one factor is that the country does not have public healthcare services tailored specifically for substance users' needs [23].

1.3 Problem Statement

Homeless substance users in Gauteng absconded from temporary shelters during the COVID-19 pandemic lockdown, preferring to live in the streets, and postponing health care as a priority despite their vulnerability [11]. Of concern is that of the 15.6 million excess deaths from 61 conditions in LMICs in 2016, Kruk et al [24] discovered that 3.6 million were due to the non-utilization of health care. Postponing health care as a priority might lead to increased mortality among homeless substance users. On the other hand, improved healthcare seeking behaviors may result in the reduction of the spread of the disease and reduce deaths amongst the homeless community. Since the homeless in Gauteng postponed health care as a priority during Covid-19, it is important to determine when and where they sought healthcare when they felt sick. The study therefore emanated to understand the healthcare seeking behaviors of homeless substance users living in the Gauteng Province of South Africa during Covid-19 lockdowns.

1.4 Rationale of the Study

Derrick et al [25] have studied the distribution and use of needles and injections by substance users with the objective of reducing the spread of HIV/AIDS. Marcus et al [26] highlighted the necessity of emergency response mechanisms for homeless people during the first lockdown of 23-26 March 2020 in Gauteng. The scoping review reveals little information on the determinants of healthcare seeking behaviors amongst homeless substance users in Gauteng [27], and a lot of studies from Europe. Thus, assessing the health care seeking behaviors of these homeless substance users might serve as a basis for intervention programmes to promote positive health seeking attitudes in Gauteng.

1.5 Significance of the study

The study findings might serve as baseline data for non-governmental organizations, private sector, and government interventions to promote positive health seeking behaviors among substance users residing in the informal settlement of the Gauteng Province. Information on healthcare seeking perceptions, both wrong and right, is to be utilized on programme planning for communicable diseases intervention strategies and strengthening existing strategies during monitoring and evaluation for NGOs. This study might also provide insight into the behavioral traits of homeless substance users about seeking healthcare which can be utilized by the Department of Health in Gauteng.

1.6 Theoretical Framework

Andersen's expanded behavioural model of health service use was used as a framework for this study [28]. To interpret individuals' healthcare services use, the model pays attention to individual's predisposition to use acute healthcare services, enabling factors that facilitate use, and one is perceived or influenced need for care. Predisposing factors translate to demographic characteristics such as race, age, and health beliefs. Enabling factors translate to personal based resources which facilitate the ability of one to access care. These entail facilities, funds, and availability of support structures. [28]. Need describes lenses through which one perceive their health status, access to health education programs, and availability of financial resources and/or incentives [28]. In this study Anderson's expanded behavioural model of health service use was used to design the purpose and objectives of this study and subsequent presentation of findings. Thus, the determinants represent the predisposing factors, the challenges represent the enabling factors, and health care services consulted represent the need.

1.7 Purpose

This study explored the health seeking behaviors of homeless substance users residing in Gauteng province of South Africa during Covid-19 lockdowns.

1.8 Objectives

- To describe the types of health care services consulted by homeless substance users who experienced Covid-19 related symptoms.
- To describe the determinants of health seeking behaviors amongst homeless substance users.

- To explore challenges faced by homeless substance users while accessing healthcare services.

19 Definition of terms

- **Healthcare seeking behaviors**- any action or inaction undertaken by individuals who perceive themselves to have a health problem or to be ill to find an appropriate remedy [29]. In this study, Healthcare seeking behaviors means the service consulted when experiencing Covid-19 related symptoms.
- **Homeless**: any individual without a formal place of habitation. This includes streets, abandoned buildings, parks and outside formal structures.
- **Substance users**: people who use drugs continuously and illegally, leading to negative consequences or resulting in coping mechanisms reliant to those drugs. These drugs are not limited to opioid, methadone and marijuana.
- **COVID-19:** a communicable respiratory disease caused by SARS-CoV-2 which causes illness in humans and animals. Confirmed symptoms include fever, cough, fatigue, muscle and body aches and headaches.
- **The types of health care services consulted** in this study refer to traditional healers, clinics, hospitals, private doctors, herbalists, and prophets.
- **Formal healthcare systems** in this study represent formally recognized healthcare systems and professionals such as hospitals, clinics, community healthcare workers etc. Informal healthcare systems on the contrary presents unrecognized behaviors such as self-prescription strategies arising from self-diagnosis including over the counter medicine and behavioral strategies.
- **Social Determinants of Health (SDH)** in this study it means having poor health perception and enabling factors such as level of education, health illiteracy, income, insurance status and ability to pay by oneself, distance to the health care facility, transport issues, attitudes of health care professionals and perception of quality of service offered.
- **The disease burden** in this study refers to the impact of Covid-19 among homeless substance users.
- In this study, **perceived strategies to promote effective health seeking behavior** means raising awareness, health education and health literacy amongst substance users exposed to Covid-19.

2. METHODS AND MATERIALS2.1 Introduction

This section presents methods to understand the healthcare seeking behaviors of substance users. Thus, the study design, study setting, study population, sample size, sampling, data collection instrument, pre-test, ethical consideration, measures to ensure trustworthiness, , data collection and data analysis will be discussed.

2.2 Study approach and design

A qualitative based approach utilized facilitated data collection from substance users to explore their healthcare seeking behaviors and contributing factors. The illustration of the depth and breadth of the participants' subjective experiences [30], enabled a deeper understanding of the healthcare seeking phenomena and a range of factors affecting substance users were discovered in relation to Covid-19 [31]. Thus, the exploratory design was employed to provide a specific account of homeless people's lived experiences, s during the COVID-19 lockdowns when accessing healthcare services. [32].

2.3 Study setting

The study took place in Pretoria Central, where most homeless people who use substances are found, with the pre-test in Centurion. Pretoria Central is in the Gauteng province, which is divided into three metropolitan municipalities, the City of Ekurhuleni, City of Johannesburg, and City of Tshwane Metropolitan Municipalities, as well as two district municipalities, which are further subdivided into six local municipalities: Emfuleni, Lesedi, Midvaal, Mogale City, Merafong City and West Rand City. The map below depicts Gauteng municipalities:

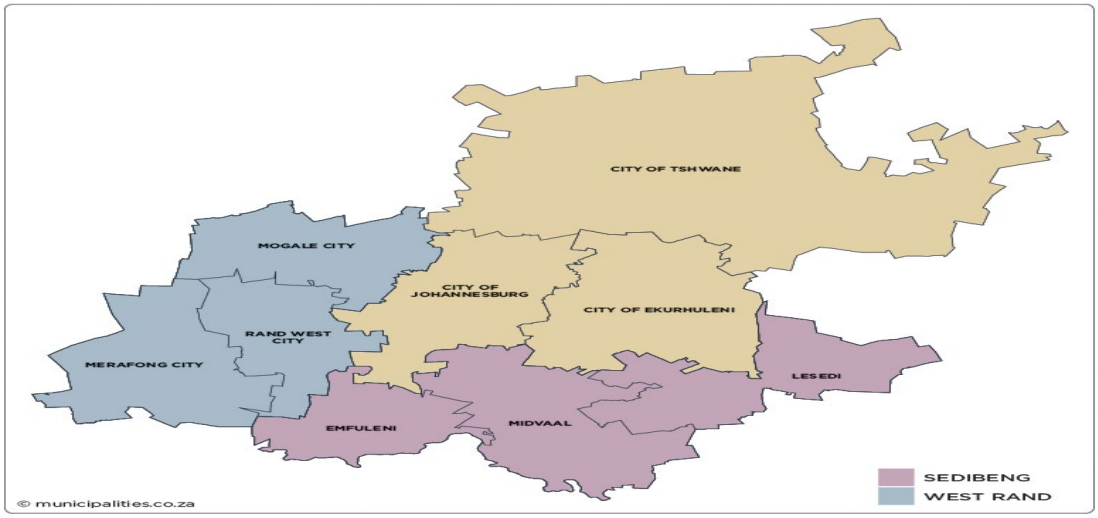

Figure 1. 1 : Map of Gauteng Municipalities

Though Gauteng is the smallest of South Africa's provinces, covering an area of 18 178km² or where they are opportunities for small hand to mouth businesses, 13 399 725 people – 24.1% of the national population live in this province. Gauteng is bordered by the Free State, Northwest, Limpopo, and Mpumalanga provinces. There are around 50,000 homeless people in Gauteng, Johannesburg with 15 000 and Tshwane 10,000. Though homeless people are scattered throughout Gauteng Municipalities, they are more concentrated in the city centers or near shopping centers [2]. According to Tenai et al [2], although substance abuse is a coping mechanism for others prior to homelessness, the continued abuse of substances helps to deal with harsh street life realities and experiences such as lack of food. Thus, the study was conducted in the city centers of Tshwane, Lyttleton and Sunnyside where most homeless substance abusers are found looking for subsistence opportunities.

2.4 Study population and sampling

The study population comprised of homeless people between 18 and 64 years of age, within the in-city centers of Tshwane during Covid-19 lockdowns. The target population is homeless substance abusers around Tshwane in Pretoria. Exploratory designs are usually characterized by an ideal size of 20 to 25, depending on the usability of the data collected to declare saturation [33]. A form of non-probability sampling, selective sampling was utilized to achieve heterogeneity. Selective sampling is a purposive sampling technique that qualitative researchers use to recruit participants with the ability to give in-depth and detailed information on healthcare seeking behaviors. The first 2 participants were selected purposefully based on the pivot inclusion criteria of participants being homeless, using substances and having suffered from Covid-19 symptoms during the Covid-19 lockdowns.

In this study, selective sampling involved snowballing with scrutiny processes, where only those homeless people that are referred for recruitment were included based on the capability of articulating facts needed and having suffered from Covid-19 symptoms during Covid-19. As per guidelines of exploratory design, snowballing continued from the participants selected purposefully up to 20 referrals using the snowballing technique, with referrals going through the same screening questions. Interview questions required yes/no answers on past infection or symptoms stated.

Inclusion and exclusion criteria

Certain parameters to select substance users were followed. The preferred age limit for participants was between 18 and 64 years as they are the economically active group in South Africa. Participants were homeless substance users and had suffered from Covid-19 symptoms during any of the Covid-19 lockdowns. The study excluded those outside the age

restriction mentioned in the inclusion criteria above and those who could not provide accurate or usable data at face value.

2.5 Data collection instrument

An interview guide is a set of topics or questions which the interviewer entails to cover in a particular interview. This study utilizes the concept of semi-structured in-depth interviews to maintain relevance to the study yet questions being open ended [34]. Therefore, in-depth interviews brought out experiences from participants in their own words which were coded for documentation.

An interview guide made of open-ended semi-structured questions developed by the researcher initially assessed demographic data such as gender, level of education and the informal place of living. From question 4, the participants were interviewed on exposure to Covid-19 and response mechanisms taken. This is assessed through symptoms that triggered health seeking behavior, types of health care consulted, determinants of the chosen type of health care consulted and duration between onset of symptoms and seeking health care attention. Annexure (I) gives an overview of the data collection tool.

2.6 Pre-test

The pre-testing of data collection tools was done to:

- Check if the instrument would bring responses required to the achieve objectives of the research,
- Check content relevancy and adequacy of the instrument,
- Check language clarity and suitability of questions and understanding by the participants,
- Assess the sequence and structure appropriateness of the questions and,
- To develop appropriate procedures for administering the instrument with reference to the study setting [35].

A sample of 2 randomly selected participants in Centurion, Pretoria, where substance users were offered food daily, was used to test the interview guide. Ambiguous questions were rephrased for clarity during the interview process, such as “did you suffer from COVID-19”, being paraphrased to “Did you suffer from flu-like symptoms during COVID-19 pandemic lockdowns such as cough, fever, chills, headache and sore throat” During the pre-test, the

following was noted: the ease of accessing the facilities; time taken during an interview; recording/taking notes; conversational flow; and ambiguities [35].

2.7 Trustworthiness

In qualitative research designs, the reliability and validity of the study is expressed in the form of trustworthiness. Gunawan's [36] school of thought on trustworthiness was applied, where it was measured based on the credibility for positivist internal validity, transferability for external validity, dependability for reliability and conformability for presentation.

Credibility

Credibility highlights the confidence level to which the participant is providing true believable data [37]. This was attained through member checking where interactions with participants prior to the interviews and respondent validation, allowing those who gave usable data to go through the audio recordings.

Transferability

William et al [37] state that transferability is the degree to which results can be generalized or transferred to another setting. Transferability was ensured by comprehensively describing the methodology, data collection, data management and analysis until the report was developed.

Dependability

Dependability measures the extent to which a study is compact, where another researcher can repeat it and obtain comparable results [37]. Congruent results are hard to obtain in qualitative studies as factors which influence respondents differ according to settings and characteristics. A process audit was done by allowing participants to evaluate their responses by going through the recordings again. Furthermore, the researcher revised the analyzed information to assess other angles of data analysis giving related results [38].

Reliability

Reliability refers to the stability of responses assigned to multiple coders of data sets [31]. The data collection tool was reinforced by an in-depth questionnaire adapted by the Consolidated Criteria for Reporting Qualitative Research (COREQ) structure to document the findings [39].

Conformability

Nowell et al [40] stipulates that conformability assesses the ability of the researcher to align the study to the objectives and purpose stated, clearly bringing out the relationship between

the findings and conclusion. Conformability was attainted through a quality audit trail where steps on data analysis of findings and presentation of the results were communicated and evaluated by the Supervisor.

2.8 Data collection

Skilled healthcare workers conducted in-dept individual interviews in places of substance users' habitation. These community healthcare workers under Best Health Solutions NGO, had been working with the homeless substance users on programmes such as food distribution from the period prior to the Covid-19 lockdowns in South Africa, thus an already existing professional relationship was developed. Ethical clearance was obtained from the University of Venda (FHS/22/PH/10/2609) and permission to conduct study by Best Health Solutions which was already working with the participants in these set ups, representing the Department of Health in Gauteng for provincial permission.

After presentation and acknowledgement of the informed consent to the participants, data was collected on the side of streets and abandoned buildings over two weeks in January 2023 after Best Health Solutions was consulted to facilitate the process which was recorded over audio recordings. Demographic data was collected first from participants without names and other confidential information, followed by the main question which assessed "Did *you suffer from flu-like symptoms during* Covid *-19 pandemic lockdowns*?". A positive response allowed participants to be then probed to give more information on their choice of healthcare seeking behaviors and input on how to ease the process. Most of the participants understood isiZulu as obtained from the pre-test on 2 participants, thus an exchange with English training was done with community health workers to obtain uniformity according to the preference of participants and address probing. Therefore, English was used for interviews initially, with translation being done where the participant did not comprehend the question. Participants not comfortable with voice recording were made aware of the right to withdraw their consent, including those not comfortable with the probing questions retaining the right to withdraw from the interview or not answer the question. Interview questions required yes/no answers on past infection or symptoms stated. Referred substance users were interviewed until data saturation was reached, bringing an end to the sample-frame. Interviews were held for a maximum of 18 minutes until data saturation was attained, where the target was 20 random sets without any confidential information questioned. Participants were thanked for their cooperation at the end of each session.

2.9 Data Management and Analysis

2.9.1 Data management

Data management ensures grouping, synthesizing, and filling data collection materials in a well-planned manner facilitating ease of duplicity and retrievability.

All audio recordings were described and matched to the interview transcripts developed. Participants who gave usable data could go through the recordings to validate the data from the questions. All recordings are stored for five years in a google drive account logged into by the student's Mvula account, sharing access with the supervisors, library, and relevant stakeholders.

2.9.2 Data analysis

The methods of data analysis employed were Interpretative Phenomenological Analysis (IPA). This entails the use of a phenomenological research design with the goal of doing a detailed autopsy of personal lived experiences of pain in British citizens [41]. In this study, homeless substance users' healthcare seeking experiences were explored and analyzed using this tool. It enables interpretations of how homeless participants are influenced by various factors to services attained at the end of the day. Although Pietkiewicz et al [42] argues that IPA design adopts only certain experiences, this study explored a comprehensive approach through: repeated listening and taking of notes, interpretation of notes into themes, seeking connections and clustering themes to finally construct the IPA results. The steps are expanded below.

Step 1: Repeated listening and taking of notes.

The researcher familiarized themself with the audio recordings by listening to them several times, reliving the atmosphere of the interview to interpret the actual picture of the setting. Translation from isiZulu to English and transcription was done intelligent verbatim, without using analysis software or contractors for thematic analysis. Notes were made on reflections used on member checking with participants.

Step 2: Interpretation of notes into themes.

The principal researcher took into consideration the notes on types of healthcare services used, challenges faced while seeking healthcare services and possible measures suggested to alleviate these challenges. The goal was to merge them into sensible data, thus packaged in the form of themes. For example, services such as vaccination, medication and other strategies from hospitals/ clinics and community healthcare workers were noted and coded as F= formal services and IS= informal services. Addressing the social determinants of health,

participants below the matric level of education were coded as BM, attained matric with an M and those who attained tertiary education with a T. Among the challenges faced, different wordings were noted coming up such as marginalization, stigmatization, and social support. Furthermore, participants according to their numbers assigned while transcribing, participants were given codes were given such as the first participant being P1 and the last, twenty-fifth being P25. Data from the pre-test was included in the main analysis to avoid valid information being left out of the study. An associate data extractor consulted, ensured the rigor of the process by going through the same process for verification.

Step 3: Seeking connections and clustering themes.

All the codes noted in various themes were grouped and described under themes. Formal and informal healthcare services were grouped under the theme “types of healthcare services consulted”, marginalization, stigmatization, and social support under “challenges faced while accessing healthcare services” and level of education vs age being grouped under “social determinants of health.

Step 4: Constructing the IPA study results.

From the results, these themes were developed which describe the holistic healthcare seeking behavior. The IPA helps the principal researcher to explore the homeless substance users’ lived experiences and healthcare seeking behaviors during the Covid-19 lockdowns without any interference of the principal researcher’s views during the data collection and analysis. Therefore, an in-depth analysis was done, examining personal perspectives of the research in phenomenal manners. This process emphasizes the school of thought on the researcher’s self-perception being reserved and bearing the light of the phenomena at hand [43].

2.10 Ethical Consideration

This is a branch which addresses the distinction between right and wrong, within the spectrum of consequences of actions undertaken by humans. In epidemiological research, ethical principles are monitored around informed consent, confidentiality, and anonymity [44]. Therefore, broader concepts of ethical considerations were addressed to ensure that participants’ rights were not abused.

Permission to conduct research.

A copy of this study’s proposal was submitted to and reviewed by the University Higher Degrees Committee (UHDC) for approval. Ethical clearance was acquired from the Ethics Committee of the University of Venda (FHS/22/PH/10/2609) and permission letter obtained

from Best Health Solutions who were already working with the participants on various projects in Tshwane. Afterwards was then data collection commenced.

Informed consent

Informed consent requires transparency between the researcher and the participants in the research being done to make an informed decision on participating [45]. An information letter (Appendix II) detailing the study was provided for the participants to read along with the interviewer, translating terms which were not understood and decided whether to participate or not. Those in agreement, information pertaining to rights and voluntary participation and complete consent forms (Appendix III) were read along with the interviewer, translating terms which were not understood. Participants had the right to revoke their consent and participation without any further questions asked.

Voluntary participation

Voluntary participation refers to participation without coercion [46]. Voluntary is when participants have the right not to participate and their rights are respected. Prospect participants were allowed an opportunity to participate or not after going through the letter of information.

Confidentiality

Confidentiality entails identifying information not accessible by anyone besides the program coordinator, excluding identifying information from reports [45]. Recordings obtained during data collections are archived at the University of Venda's library, with access being granted after combined permission of the researcher, ethics committee and the councilors of the study population area. These are kept for 5 years.

Anonymity

Anonymity is an intense form of privacy where the identity of participants is known only by the researchers interacting with the participants [47]. Participants' names and personal data were not required to maintain anonymity.

Do no harm.

Doing no harm refers to not inflicting harm to participants either psychologically or physically [47].. Any discomfort reported psychologically, was to be taken up with the psychologist consulted from a Non-Profit Organization called PHOLA. No physical harm was associated with this study.

2.11 Dissemination and implementation

A copy of the research report is submitted to the University of Venda's Library. The results are to be published in accredited journals and presented at local and international conferences.

2.12 Summary

Means of data collection have been presented in this section and how data was managed post the study. Methodology, research design and characteristics of the population and phenomena to be explored were also laid out.

2.13 Chapters outline

Chapter two is a scoping review of literature. This chapter describes what is already covered about the topic and identify the gaps, which still need to be filled.

Chapter three is presentation and discussion of study findings, limitations, conclusions, and recommendations.

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CHAPTER TWO

SCOPING REVIEW

Healthcare seeking behaviours of homeless substance users: A Scoping Review

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Abstract

Substance use continues to be a public health problem globally. In 2015, the estimated prevalence among the adult population was 18.3% for heavy episodic alcohol use in the past 30 days; 15.2% for daily tobacco smoking; and 3.8%, 0.77%, 0.37%, and 0.35% for past-year cannabis, amphetamine, opioid, and cocaine use, respectively. European regions had the highest prevalence of heavy episodic alcohol use and daily tobacco use. High-Income North America region had among the highest rates of cannabis, opioid, and cocaine dependence. About 15% of South Africans are associated with substance use, with 0.02% being homeless. Prevalence of homeless substance users continued an upward trajectory amid the Covid-19 pandemic in 2020, where it was above 60%, raising alarms on their healthcare seeking behaviors. The purpose of this scoping review was to assess the healthcare seeking behaviors of homeless substance users during Covid-19 lockdowns. This review was conducted following PRISMA guidelines where electronic databases were used by consulting newspaper articles, credited website published reports and journals under Google Scholar. A total of 47 articles published in English between 2017 and 2022 were consulted, only using 27 for results synthesis. Data was extracted and presented according to sources consulted, year published, study setting, population size and how they address objectives. Results indicate a variety of health seeking behaviors with the majority finding it difficult to access healthcare, and only admitted in hospitals as emergency cases. Factors associated with health seeking behaviors include lack of identification documents and address, and stigma. Since many of studies addressing this topic were conducted in Europe and India, there is a need to explore healthcare seeking behaviors of homeless substance users during the Covid-19 lockdowns, in South Africa to inform strategies to improve healthcare utilization.

Key words: Covid-19, Healthcare seeking behaviors, Homeless, Substance users, Health promotion.

1. INTRODUCTION AND BACKGROUND

Peacock et al [1] assert that in 2015, the estimated prevalence among the adult population was 18.3% for heavy episodic alcohol use in the past 30 days; 15.2% for daily tobacco smoking; and 3.8%, 0.77%, 0.37%, and 0.35% for past-year cannabis, amphetamine, opioid, and cocaine use, respectively. European regions had the highest prevalence of heavy episodic alcohol use and daily tobacco use. The age-standardised prevalence of alcohol dependence was 843.2 per 100,000 people; for cannabis, opioids, amphetamines and cocaine dependence it was 259.3, 220.4, 86.0 and 52.5 per 100,000 people, respectively. High-Income North America region had among the highest rates of cannabis, opioid, and cocaine dependence. According to Peacock et al [1], substance-attributable mortality rates were highest for tobacco (110.7 deaths per 100,000 people), followed by alcohol and illicit drugs (33.0, and 6.9 deaths per 100,000 people, respectively) in 2015. The South African Community Epidemiology Network on Drug Use (SACENDU) highlight that at least 15% of the South African population are homeless substance users. Cases of people recorded in about 94 centers have increased from 9 394 to 10 938, which is about 0.10% of substance users, accessing treatment in the 2021/22 fiscal year, posing a huge percentage of substance users who are not accounted for [2]. According to Arde [3], prevalence of homeless substance users climaxed amid the Covid-19 pandemic in 2020, where it was above 60% in Durban. The Human Sciences Research Council (HSRC) estimates that approximately 100,000 to 200,000 people are homeless in South Africa. Most of the homeless people have been vulnerable to communicable diseases, with substance users contributing to HIV at 9.56% and TB at 1.8% [4]. Homelessness contributes to severity of Covid-19 as symptoms of fever and flu are more favorable in places with low temperatures such as the streets. This poses a huge risk of infection and succumbing to the disease if improper strategies are taken or challenges towards accessing healthcare are not addressed [5]. Studies have shown that homeless people have a high level of morbidity and mortality. The average life expectancy of homeless men living more than ten years on the street is 45 - 47 years old. Attaining good health seeking behaviour is an important element of prevention, early diagnosis, and management of disease conditions. It helps in reducing cost, disability, and death from diseases [6]. However, the health seeking behaviour of homeless substance users is not clear. This scoping review is necessary to examine novel findings, identify and analyze any gaps in knowledge from specific studies. Relationships with other studies regionally and globally will be explored. Specific objectives entail to:

- To explore the health seeking behaviors of homeless substance users.

- Describe the determinants of health seeking behaviors among homeless substance users.
- Describe challenges faced by homeless substance users while accessing healthcare services.

The next section will be comprised of methods adopted to conduct the review and synthesize literature.

2. MATERIALS AND METHODS

The methodology of this scoping review guided by PRISMA-ScR (Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews) guidelines being comprised of 20 key points [7]. This entails addressing sections such as protocol validation, eligibility criteria, information sources, search strategy, selections of sources, data charting, data items, critical appraisal, and synthesis of results.

2.1 Protocol validation

A copy of this study's proposal was submitted and approved through the decision of the Executive Faculty of Health Sciences Higher Degree Committee of the University of Venda on 14 August 2022.

2.2 Eligibility criteria

Going through various sources of information, it is key to screen articles on whether they are relevant to the study purpose. Sources consulted were supposed to be written in English and published between 2017 and 2023. Inclusion and exclusion criteria guide the eligibility of each literature to be used as stated table 2.1 below:

Table 2. 1: Inclusion and exclusion criteria.

Inclusion criteria	Exclusion criteria
Used Google scholar (GS), Newspaper articles (NA), credited website published reports (CWPR)	Studies published before 2017
Studies published between 2017 and 2023.	Lack of full text reference
Only studies involving healthcare seeking behaviors of homeless substance users, social determinants of health affecting substance users and challenges they usually faced.	Reports not published by accredited institutions

2.3 Information sources

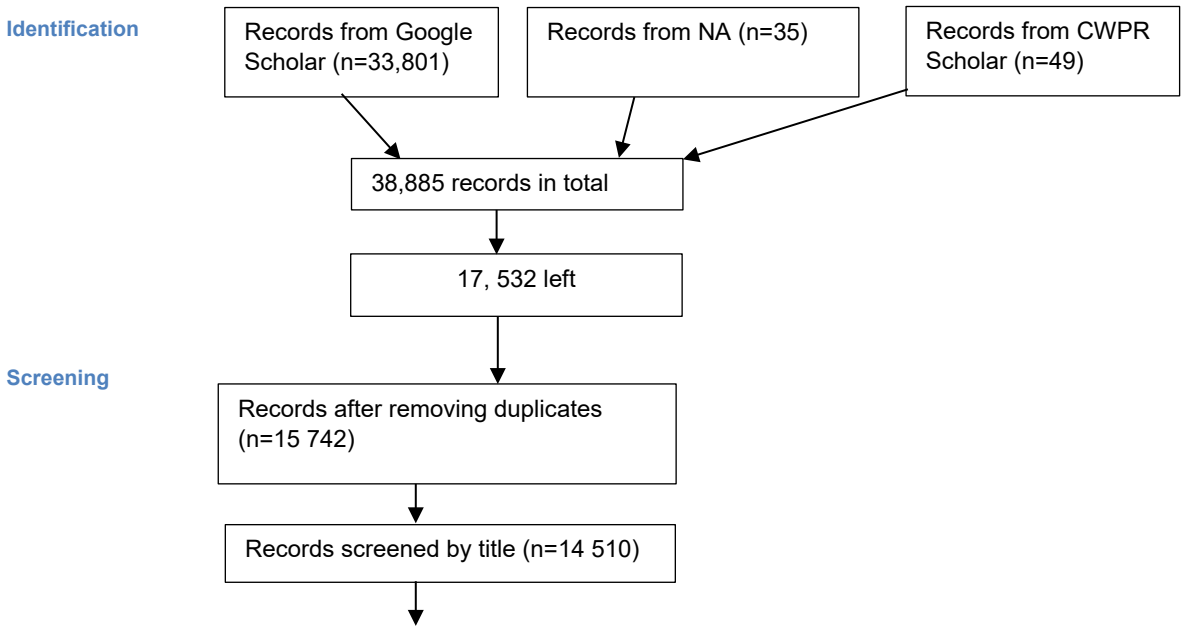
Online databases were used to provide information validated by certified publishers. Of late sources require recognition for them to be appraised to provide usable data through eligibility assessments. Online sources such as newspapers articles (NA), credited website published reports (CWPR), journals and books under Google scholar (GS) were consulted. Google scholar consisted of several articles from Science Direct, SagePub, BioMed Central, MDPI, Springer and National Library of Medicine. Credited website published reports entail reports from programmes which are published in governing institutions such as Western Cape Government, National Institute for Communicable Diseases (NICD) and World Health Organization (WHO).

2.4 Search strategy

Search terms on healthcare seeking behaviors were used to consult sources, for example via Google Scholar. Three sets of search terms were used based on the objectives of the study (a) health, seeking, behavior, homeless. (b) determinants, health, seeking, behavior homeless, and (c) challenges, experienced, homeless, accessing healthcare. After using these search terms, about 33,885 of articles came up. About 17, 532 remained after customizing based on years as from 2017 till 2023.

2.5 Selection of sources evidence

Whilst reviewing 17 532 articles by abstract, 15 742 were included after removing 1,790 duplicates. After going through titles, 1,232 articles were excluded remaining 14, 510. Further on using the eligibility criteria, 25 were included and 14 485 being excluded, with an added 2 included to make them 27 in total. The PRISMA flow diagram below shows the details of selection.



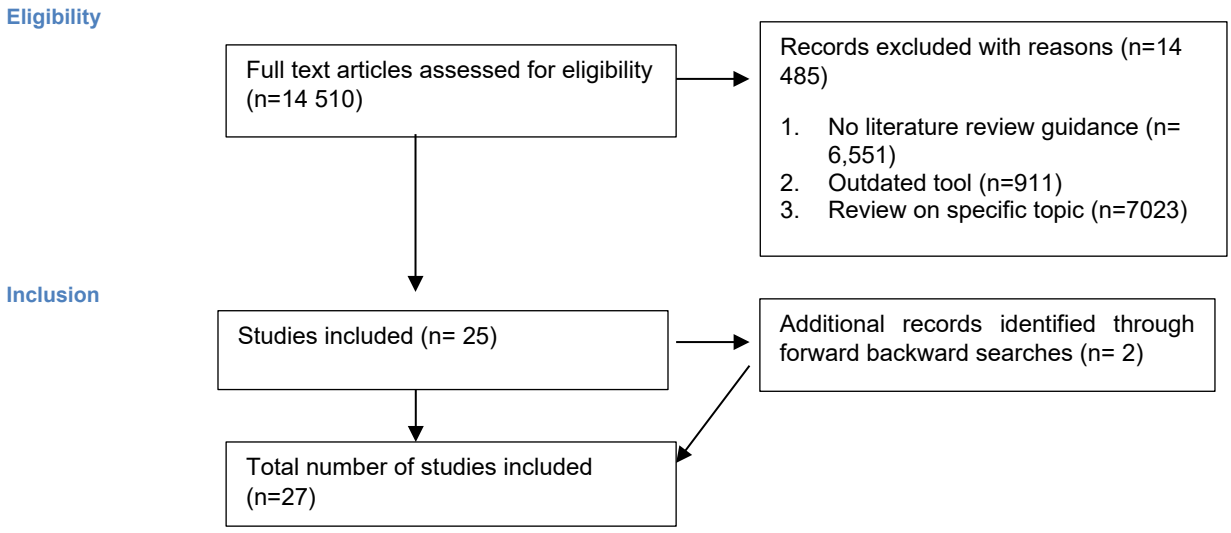


Figure 1.1: PRISMA based flow diagram.

2.6 Data charting

Results from the review were systematically extracted by the principal researcher (Mayibongwe Mnkandla) and summarized in a table of evidence. Source coding was employed to group literature from similar journals and credited websites, as per inclusion and exclusion criteria. Criteria for data extraction was authors, year, title, source, study approach, sample size, setting and objectives. These are recorded in an Excel spreadsheet Insert file 1, describing how each contributed to the objectives. Data was presented to address each objective. A thorough check of the data extracted was done by a core data extractor (Dr Ndumiso Tshuma). The study supervisors verified the data extraction.

2.7 Data items

Data extraction variables were based on the study objectives as follows:

- What is the healthcare seeking behavior of homeless substance users?
- What determinants are associated health seeking behaviors of homeless substance users?
- What are the challenges faced by homeless substance users in seeking healthcare services?

Definition of variables:

a) Determinants in this study were individual characteristics associated with the health seeking behavior of homeless substance users.

b) Health seeking behaviors in this study meant services utilized categorized as formal and informal platforms offering healthcare services such as hospitals, clinics, community healthcare workers, traditional herbs, and personal beliefs.
c) Challenges faced entail barriers which limited or inhibited utilization of healthcare services such as stigmatization, marginalization, stereotyping, emotional and physical factors.

2.8 Critical appraisal

Articles selected were not limited to the study approach either quantitative, qualitative, or mixed methods, all types of information sources were selected. No further critical appraisal was done.

2.9 Synthesis of results

A scoping review of the literature entailed reviewing different literature and synthesizing them under three topics to address the study objectives as presented in the next section.

3. RESULTS AND DISCUSSION

Literature review sources consulted are sorted below under table 2.2, determining the number of references with findings related to each objective.

Table 2. 2 : Sources relating to review of objectives search terms.

Objectives	Number of Studies	References
Healthcare seeking behaviors of homeless substance users	11	8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18
Determinants influencing health seeking behaviors of homeless substance users	6	2, 4, 19, 20, 21, 22
Challenges in accessing healthcare services	10	13, 25, 26, 27, 28, 29, 30, 31, 32, 33

3.1 Healthcare seeking behaviors of homeless substance users.

In New York, Sakai-Bizmark et al [8] noticed that homeless youths do utilize hospital services when facing challenges with their health such as accidents, diarrhea, Tuberculosis (TB), and fever, facing longer time in hospitalization compared to housed youths. Similarly,

statistics demonstrate that the homeless people are admitted to a hospital five times more than the public and stay under care much longer [9]. In addition, Marks et al [9] indicate that homeless people often obtain their care in hospital emergency departments, partly due to their inability to pay for medical services. Rahmawati's case study in India observes the number of homeless substance users rising in the emergency department seeking chronic TB therapy [10]. In support of Sakai-Bizmark' findings on formal healthcare services, Jean's [11] survey on healthcare professions interactions with the homeless, realize the use of shelter-based clinics in designated stations for the homeless. On the contrary, the CDC noted that people experiencing homelessness often lack ready access to the medical care required to make an early diagnosis of TB disease [12].

Other types of healthcare services used by homeless substance users are community healthcare workers, Feldman et al [13] supports this by evidence on provision of street medicine by community healthcare workers, to improve utilization of hospital services by bringing them to the individuals in need. In addition, Rogers et al [14] highlight that various treatment services were provided to homeless substance users through health promotion including the distribution of masks and training substance users on how to cover their mouths and noses when coughing or sneezing, during Covid-19 pandemic. These community healthcare workers are also consulted by homeless adults from jail to bridge the gap between hospitals and homelessness according to Abbott et al [15]. Van Hout and colleagues [16] realized that mobile outreach services to drug spots by community healthcare workers to reduce harm is also well utilized according to Iqbal et al [17]. On the contrary, studies show that homeless people are not receiving preventive and primary care, which is known to substantially lower overall healthcare costs [18]. According to Harmon [19], homeless people are often faced with reduced access to private and public services and vital necessities such as healthcare and dental services. Preventative measures play an effective role in infection control, although countries such as Sweden view social distancing as inadequate in containing Covid-19 virus on a personal basis [20].

Stacy et al [21] record cases of the homeless having to use self-medication obtained from over-the-counter facilities to treat themselves. Although sometimes they use unknown substances such as drugs to help themselves relieve feeling the symptoms of the sickness they will be undergoing. Rogers et al [14] state that various treatment measures emerged during Covid-19 pandemic with other homeless substance users preferring traditional medicine and unknown substances. African traditional remedies sprung up with some individuals from Tanzania endorsing *Umhlonyane* to be effective in treating Covid-19, including the Madagascan president [22, 23]. However, Minister of Health in South Africa

dismissed effectivity of *umhlonyane* against Covid-19 as it was not approved by the South African Health Products Regulatory Authority (SAHPRA) [24].

Most studies cited here were conducted in Europe and regionally in Africa, with none from South Africa. Thus, there is essence in exploring different types of healthcare services used by homeless substance users during Covid-19 lockdowns in South Africa.

3.2 Determinants influencing health seeking behaviors of homeless substance users.

Using Natural Language Processing (NLP), Patra et al [25] were able to extract social determinants which influence the healthcare seeking behaviors of homeless substance users are level of education, poverty, and social support. Amongst these three, Johnston et al [26] realize that resource allocation from less essential healthcare services to primary healthcare helps alleviate severity of a pandemic. It is key to keep the economy abreast to cater for all population groups amid a pandemic. Therefore, Briginshaw et al [27] discover that reduction of methadone price from authorities to accommodate institutions acquiring it for mitigating risks linked with substance users in controlled facilities. All these measures were to try and provide social protection for homeless individuals, although Covid-19 relief packages were less accessible for homeless substance users [28].

Another influencing social determinant of health was the level of education. After investigating literacy levels amongst the homeless and vulnerably housed in Canada, depictions are that high literacy levels are associated with beneficial use of formal healthcare services according to Farrell and colleagues [29]. However, studies show that a higher number of substance users do not know their education status. Thus, according to Germishuys et al [4], approximately 52%, 32%, 15% and 0.001% homeless substance users in the City of Tshwane do not know their education status, have not attained matric, have reached matric and reached tertiary level, respectively. This represents a low education level community amongst homeless substance users. Thus, in support of Farrell and colleagues and Germishuys' cohort, depictions of low healthcare services are linked to this population group. However, less linkage is made regarding preferred healthcare services accessed amid a novel pandemic combining different social determinants of health such as accommodation and level of education. This brings about research to be done on addressing age and level of education in determining the level to which the pandemic was perceived and influencing which services to utilize or not.

According to Giljam-Enright et al [30], in South Africa the three major Social Determinants of Health (SDH) that influence the choice of healthcare services consulted in low socio-economic settings are level of education, availability of social protection, and distance from location to

healthcare services provided by Eastern Cape Department of Health. The determinants from other provinces are not clearly available in literature. Therefore, to address health inequalities in each provincial setting, specific relatable SDH influencing healthcare seeking behaviors of homeless substance user ought to be described and understood.

3.3 Challenges experienced by homeless substance users when accessing healthcare services.

Studies have noticed various challenges faced by substance users when trying to access healthcare services. One such challenge is that homeless people may find it difficult to document their date of birth or their address, which are requisite to accessing health care. National Law Centre on Homelessness and Poverty [31], states that homeless people most likely misplace their luggage containing their Personal Unique Identification Documents (PUID), thus facing challenges in accessing various social services. Therefore, replacing such documents without proof of residency and other identification documents makes it close to impossible. However, a catch 22 is created where other states hold back birth certificates if photo IDs are not presented [31]. This problem is insignificant in countries that have the National Health Insurance (NHI) offering free healthcare services such as the United Kingdom (UK) and the United States of America (USA), with 24 hour healthcare services [32].

Quite a significant number of studies highlighted stigmatization as a strong barrier from healthcare administration. Amanda [33] recorded stigma for getting help whilst facing addiction problems is a challenge for substance users. In Sydney, jailed substance users who have just been released and are homeless, indicated stigmatization on being ex-convicts, using substances and residing in abandoned shelters [15]. In support of Amanda and Abbott, substance users also face stigmatization termed as TB based stigmatization which has a major impact in their healthcare seeking behaviors when seeking TB aid [10]. Dromi [34] postulates homeless individuals prone to employ certain strategies of preserving dignity by limiting interactions with other people, thus resulting in systematic stigmatization. Therefore such key populations face umbrella stigmatization such as sexually transmitted infections and communicable diseases [35]. In support of these findings, Hammarlund, and colleagues [36], after reviewing the World Drug Report in USA, figured out that homeless individuals are affected by internal and external forms of stigmatization in their decision-making process, influencing on whether to seek help or not when feeling seek.

O'Carroll and Wainwright [37] describe barriers to healthcare services utilization faced by substance users to be physical in terms of distance to healthcare facilities, administrative systems in place, or attitudinal by healthcare administration. Although findings by Jean

observed community healthcare workers being mobile around the homeless and shelter-based clinics meant to reduce distance to actual hospitals, challenges are also faced when consulting these services [11].

Allen et al [38] noticed that substance users face system related barriers while trying to access healthcare services such as unfair treatment. Although equity is key in addressing public health problems, unfair treatment is noticed most of the time. Also, Purkey and MacKenzie highlight the issue of marginalization of the homeless and vulnerable housed when accessing respectful healthcare services in Ontario [39]. Therefore, addressing equity has been part of the World Health Organization's plan by addressing Social Development Goals (SDGs) through integrating healthcare strategies with the aim to address needs in high-risk populations. It has been discovered that due to workload, staff insecurity, poor documentation of homeless, clinics refuse to attend to homeless substance users, forcing a team of medical practitioners from the University of Pretoria to assist this key population group during the lockdown [4]. Measures put in place to address systematic challenges through shelter and remote clinics, but Mahlase noted that the focus was feeding scheme and mitigation of HIV/AIDS spread amongst substance users, ignoring the actual needs of the homeless on site [40]. Thus, also mentioning less empathy shown towards them by shelter workers.

Davis et al [41] present those psychological factors such as patient-clinic relationships being vital in reducing challenges on substance users in seeking healthcare assistance in Cape Town, South Africa. In as much as this is relevant to Tuberculosis (TB) treatment, communicable diseases' strategy of healthcare seeking is uniform towards most of them, and such gaps must be addressed among different communicable diseases due to their novelty and different pharmacological properties. Matsuzaki et al [42] confirm these findings too on their study as they perceived social support being a major barrier to care among illicit drug users. Even though the National Strategic Plan (2019-2024) of The National Department of Health in South Africa, has goals of developing sustainable interventions to ease access to health through improving client relationships, poor patient-clinic relationships are still being witnessed [43]. However, such structural barriers still need to be investigated in relation to any novel public health problem.

4. LIMITATIONS

Sources consulted and used were only limited to between 2017 and 2023, thus limiting the synthesis of available literature. Literature reviewed could be further explored systematically.

5. CONCLUSION AND RECOMMENDATIONS

This scoping review noted that much research studies about health seeking behavior of substance users has been conducted in Europe covering type of services consulted, determinants of choice of services and challenges faced. Thus, all the studies were not conducted in South Africa during COVID-19 pandemic. Thus, this scoping review has noted that, health seeking behaviors of homeless substance users, associated social determinants and challenges faced when accessing health care need to be explored further amid a pandemic.

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CHAPTER THREE

PRESENTATION OF STUDY FINDINGS, DISCUSSIONS, LIMITATIONS, CONCLUSIONS AND RECOMMENDATIONS

Healthcare seeking behaviors of homeless substance users during the Covid-19 lockdowns in Gauteng, South Africa.

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Abstract

Around the world, approximately 275 million people use drugs, with over 36 million succumbing to drug disorders, with 15% of South Africans using drugs. In the Gauteng Province, about 55% of autopsies of medicolegal deceased cases (2003-2012) showed the presence of one or more illicit drugs in Pretoria. Most research shows that around one third of people who have problems with alcohol and/or drugs are homeless. Homelessness continues an upward trajectory of being a global social security problem affecting both developed and developing countries. The World Population review estimates that Nigeria has the highest numbers of homeless people in the world in 2023, followed by Pakistan, Egypt, Syria, among others, whereas the Human Sciences Research Council and estimates that between 100,000 and 200,000 people live on the streets of South Africa. Gauteng province alone accounts for 25 000 with Johannesburg having 15, 000 while Tshwane is having 10,000. Studies have shown that homeless people have a high level of morbidity and mortality with an average life expectancy of 45 - 47 years old among men living more than ten years on the street. Evidence suggest that homeless people are often denied access to even the most basic assistance including healthcare, which could have been worse during COVID-19 pandemic. This study assessed the healthcare seeking behaviors of homeless substance users during the Covid-19 lockdowns in Gauteng, South Africa. A qualitative approach using an exploratory design, assessed referrals based on suffering from symptoms of Covid-19 during lockdown period between 2020 and 2022. Data was collected from 25 homeless substance users in the City of Tshwane in Gauteng, through unstructured interviews. After transcribing intelligent verbatim

and translating recordings, the principal researcher did thematic data analysis without the use of computer software data analysis programmes. Three themes based on the study objectives included, types of healthcare services used, the determinants of the health seeking behaviours adopted by homeless substance users, and challenges experienced while seeking healthcare. From the twenty-five participants, ranging from twenty-one to fifty years old, thirteen suffered from Covid-19 symptoms. Five used formal healthcare systems and eight informal healthcare systems. Older participants accessed healthcare services, while less of the younger population used them. Challenges faced entailed marginalization, stigmatization and lack of social support. Since this study was delimited to Gauteng province, findings cannot be generalised nationally. The study can also be carried out in other provinces with high number of substance users such as Western Cape. The Department of Social Development should include capable substance users in training healthcare programmes aimed at persuading this key population group to use formal health care and create awareness to demystify marginalisation and stigma.

Keywords: Covid-19, Health promotion, Healthcare seeking behaviours, Homeless, Substance users.

1. INTRODUCTION AND BACKGROUND OF THE STUDY

1.1 Introduction

Health seeking behaviour is defined as any action undertaken by individuals who perceive themselves to have a health problem or to be ill for the purpose of finding an appropriate remedy [1]. Attaining good health seeking behaviour is an essential element of prevention, early diagnosis, and management of disease conditions. It helps in reducing cost, disability, and death from diseases [1]. Regarding substance users, stereotypes have been made suggesting poor general healthcare seeking behaviors about diseases such as tuberculosis and HIV/AIDS. Covid-19 being a novel communicable disease, health seeking behaviors from different population groups also need to be documented by researchers. This section of the mini dissertation presents the background, problem statement, significance, rationale, purpose, objectives, and functional definition of terms of this study.

1.2 Background

Homelessness continues an upward trajectory of being a global social security problem affecting both developed and developing countries [2]. In England alone, there were 274 000 homeless people in December 2021 and 365 535 in 2023 [3]. In America, 582,462 individuals are experiencing homelessness in 2023 [3]. Nigeria has the highest numbers (24 400 000) of

homeless people in the world followed by Pakistan (20 000 000), Egypt (12 000 000), Syria (6 568 000) [4]. Grenada has the lowest (68) numbers of homeless people, followed by Ivory coast (117). Tenai, et al [2] noted that, people of all ages, young and old, and mothers with young children live in the streets as homeless people. On the contrary, countries such as Jordan, Cuba Bhutan and Liechtenstein do not have people living in the streets without homes in 2023 .

The Human Sciences Research Council (HSRC) estimates that between 100,000 and 200,000 people live on the streets of South Africa [5]. Accurate statistics are non-existent though Mitchley [6] states that there may be 50 000 people living in the streets of Gauteng. Shoba [7] estimates that Johannesburg has 15 000 people residing in the streets with Tshwane having 10,000. According to Shoba[7] , NGOs indicate that 14,000 people in Cape Town are homeless, the number growing exponentially since the start of the Covid-19 pandemic due to job losses and other knock-on effects of the virus.

The Coronavirus disease 2019 (Covid-19) has been having its toll in South Africa with different waves being experienced in 2021 and 2022. Covid-19 is a respiratory disease caused by SARS-Cov2-2019 which has resulted in 205 million infections and over 4 million deaths globally. Currently, the South African National Institute of Communicable Diseases (NICD) reports cases in Gauteng to be the highest, approaching the million mark and fatalities approaching 20,000 [8]. Cases in the Tshwane Region of Pretoria and Centurion were notable before the 3rd wave, noticing a rise also in the number of people hospitalized who were critical. This also spread to students in the Tshwane University of Technology in the main CBD. Covid-19 is prevalent in wintry conditions, resulting in symptoms like influenza. These include fever, coughing, sneezing and an irritated throat. Transmission is mostly through contact with infected individuals and surfaces. However, evidence has shown that the delta strand is more infectious, resulting in the rapid spread of infections with a prevalence of 0.75 and 97% more transmissibility compared to the novel strain [9]. Information on cases based on occupation is barely accessible and is based on main geographical areas. Other insignificant means of spreading are still to become known as public health advances. Effective means of preventing the spread of COVID-19 among individuals entail physical distancing, wearing of masks, avoiding contact with potentially infected surfaces and constant disinfection.

Due to the national lockdown instituted by the SA government from 27 March 2020, the Disaster Management Regulation Section 11 (d) mandated the state to create temporary shelters for the homeless and authorized enforcement officers to forcibly evacuate people from the streets to preserve their own and others' lives. This legislation also mandated the provision of temporary sites to prevent transmission and enable treatment for people exposed to or infected with the new coronavirus who were unable to self-quarantine or self-isolate.

Thus, many people living in the streets of Gauteng were placed in temporary shelters identified by the Department of Social Development. However, the exercise of identifying and moving homeless people became repetitive since many were absconding from the temporary shelters [10]. Some were leaving shelters because of substance abuse and the subsequent cravings, and others preferred to keep to their own small community. According to Mitchley [11], temporary shelters faced the challenge of substance abuse with some homeless people suffering from withdrawal symptoms, which at times manifested in aggressive behaviors and violence.

Homeless people easily access drugs, with abuse being a survival measure to escape the reality of not having any form of habitation and issues arising [2]. Makiwane et al [12] postulates robbery and drug trafficking being the most dominant survival systems for the homeless. Substance use cases have been rising globally with people falling prey to its addiction. Around the world, approximately 275 million people use drugs, with over 36 million succumbing to drug disorders, while in South Africa 15% of the country's population are associated with drug use [13]. In Gauteng, in the Atteridgeville area, Moodley [14] noted the lifetime prevalence rates substances to be 51.4% (95% confidence interval (CI) 41.5 - 61.5%) for alcohol, 25.2% (95% CI 17.1 - 33.3%) for cigarettes and 13.2% (95% CI 8.3 - 18.2%) for cannabis among secondary school learners. Alcohol has the lowest mean age of initiation at 14.6 years (standard deviation 2.0). About 55% of autopsies of medicolegal deceased cases (2003-2012) showed the presence of one or more illicit drugs in Pretoria [15]. This shows that substance users, especially homeless people with them being excluded from mainstream social structures, are often susceptible to a lot of health risks including deaths.

Access to health care and social services is one of the five primary demands contained in the homeless manifesto launched by the National Homeless Network in South Africa [7]. Despite the progress in improving health outcomes, most African countries still face challenges in providing adequate healthcare services, particularly to the vulnerable. Of particular concern is that the homeless are vulnerable to communicable respiratory diseases (such as COVID-19) with low chances of accessing healthcare services [11]. One of the reasons for non-access to health services among the homeless is that for many the daily struggle for shelter, food, and clothing prevents them from viewing health as a priority. Researchers categorize not prioritizing health as a notable negative health seeking behavior. Healthcare seeking behaviors are actions undertaken by individuals suspecting themselves of having a health condition to consult health care services [16]. Postponing health as a priority is worrying in relation to communicable diseases (such as COVID-19) as an increase in infection is prone to happen upon late access to healthcare attention, resulting in prospective mutations and intensity of the pandemic [17].

Organizations such as TB/HIV Care have rolled out initiatives regarding reducing transmission of HIV/AIDS using syringes, distributing free syringes and needles to substance users [18]. This is a proactive measure to consider individuals who are socially compromised in taking the initiative to seek medical help for infections. The Community Oriented Substance Use Programme (COSUP) was implemented with the City of Tshwane Metropolitan Municipality and Gauteng Department of Health's Tshwane District in South Africa together with the University of Pretoria using methadone to manage drug use withdrawal effects in temporary shelters during Covid -19 lockdowns. However, because it is expensive, its intake fluctuated leading to some homeless escaping back to the informal settlements and streets where access to drugs is easy, thus postponing health care as a priority. The access to basic health right stipulated in the South African Constitution, is blur for the homeless as some of them do not possess identity documents, making it hard for them to be attended in health care facilities [19].

Global statistics reports that substance users` mortality rate is fueled by the wide gap between the onset of disease symptoms and seeking relevant effective medical attention [20]. Globally, substance users succumbing to diseases has risen to 15%, from tuberculosis to HIV/AIDS and seasonal flu [21]. Various socioeconomic factors play a pivotal role in influencing such behaviors patterns in general. In India, Dubey [22] noted that factors contributing to poor healthcare seeking behaviors are linked with populations which have fallen prey to drug addiction. In South Africa, one factor is that the country does not have public healthcare services tailored specifically for substance users' needs [23].

With discoveries in 2016 noting that 3.6 million deaths in LMICs were due to non-use of health care, postponing health care as a priority leads to increased mortality among homeless substance users. Thus, improved healthcare seeking behaviors may result in the reduction of the spread of the disease and reduce deaths amongst the homeless community. Since the homeless postpone health care as a priority, it is important to figure out when and where they seek healthcare when they feel sick. Gaps in literature do not entirely address social determinants of health among this population group and influences of their healthcare seeking behaviors, this study was able to bring out the social influences around behavioral science during the pandemic's peak. The main objective explored their healthcare seeking behaviors expanding to education, strategies explored and strategies to mitigate barriers to efficient and effective access to formal healthcare aid.

The study findings serve as baseline data for non-governmental organizations, private sector, and government interventions to promote positive health seeking behavior among substance users living in informal settlement of the Gauteng Province. Information on healthcare seeking

beliefs is to be used on programme planning for communicable diseases intervention strategies and strengthening already existing strategies during monitoring and evaluation for NGOs.

1.3 Theoretical Framework

Andersen's expanded behavioural model of health service use was used as a framework for this study [24]. To predict or explain one's use of healthcare services, the model focuses on an individual's predisposition to use acute healthcare services, enabling factors that facilitate use, and one is perceived or influenced need for care. Predisposing factors translate to demographic characteristics such as race, age, and health beliefs. Enabling factors translate to personal based resources which facilitate the ability of one to access care. These entail facilities, funds, and availability of support structures. [24]. Need describes lenses through which one perceive their health status, access to health education programs, and availability of financial resources and/or incentives [24]. In this study Anderson's expanded behavioural model of health service use was used to design the purpose and objectives of this study and subsequent presentation of findings. Thus, the determinants represent the predisposing factors, the challenges represent the enabling factors, and health care services consulted represent the need.

2. MATERIALS AND METHODS

2.1 Introduction

This section presents methods to assess the healthcare seeking behaviors of substance users. Thus, the study approach and design, study setting, study population and sampling, data collection instrument, pre-test, measures to ensure trustworthiness of the study findings, data collection and data analysis will be discussed.

2.2 Study approach and design

A qualitative based approach utilized facilitated data collection from substance users to explore their healthcare seeking behaviors and contributing factors. The illustration of the depth and breadth of the participants' subjective experiences [25], enabling deeper understanding of the healthcare seeking phenomena and a range of factors affecting were discovered in relation to Covid-19 [26]. Thus, the exploratory design being employed to provide a specific account of homeless people's lived experiences, representing their rights in an ethical manner [27].

2.3 Study setting

The study took place in Pretoria central, where most homeless people who use substances are found, with the pre-test in Centurion. Pretoria central is in the Gauteng province, which is divided into three metropolitan municipalities, the City of Ekurhuleni, City of Johannesburg, and City of Tshwane Metropolitan Municipalities, as well as two district municipalities, which are further subdivided into six local municipalities: Emfuleni, Lesedi, Midvaal, Mogale City and West Rand City. The map below depicts Gauteng municipalities:

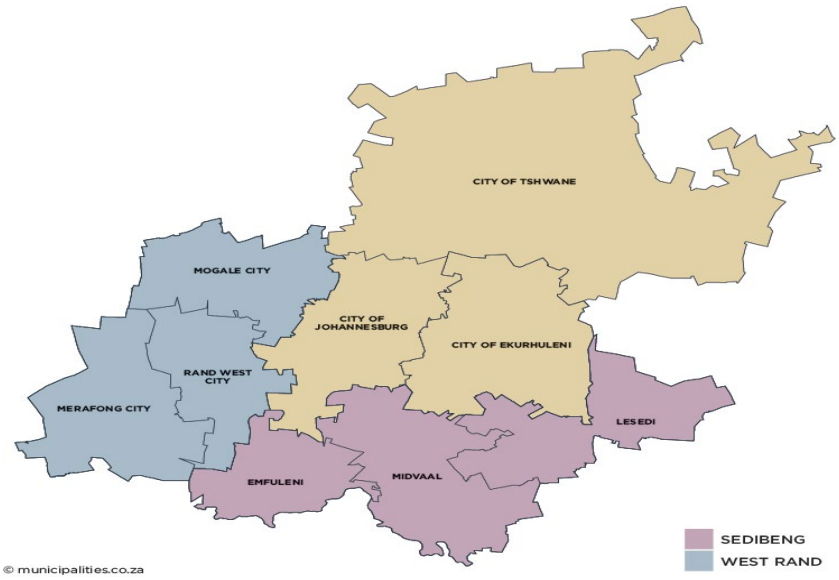

Figure 3. 1 : Map of Gauteng Municipalities

Though Gauteng is the smallest of South Africa's provinces, covering an area of 18 178km² or where they are opportunities for small hand to mouth businesses, 13 399 725 people – 24.1% of the national population live in this province. Gauteng is bordered by the Free State, Northwest, Limpopo, and Mpumalanga provinces. There are estimated around 50,000 homeless people in Gauteng, Johannesburg with 15 000 and Tshwane 10,000. Though homeless people are scattered throughout Gauteng Municipalities, they are more concentrated in the city centers or near shopping centers [2]. According to Tenai et al [2], although substance abuse being a coping mechanism for others prior homelessness, the continued abuse of substances helps to deal with harsh street life realities and experiences such as lack of food. Thus, the study was conducted in the city centers of Tshwane, Lyttleton and Sunnyside where most homeless substance abusers are found looking for subsistence opportunities.

2.4 Study population and sampling

Study population comprised of homeless people between 18 and 64 years of age, within the in-city centers of Tshwane during Covid-19 lockdowns. The target population is homeless substance abusers around Tshwane in Pretoria. Exploratory designs are usually characterized by an ideal size of 20 to 25, depending on the usability of the data collected to declare saturation [28]. A form of non-probability sampling, selective sampling was utilized to achieve heterogeneity. Selective sampling is a purposive sampling technique that qualitative researchers use to recruit participants with the ability to give in-depth and detailed information on healthcare seeking behaviors. The first 2 participants were selected purposefully based on the pivot inclusion criteria of participants being homeless, using substances and having suffered from Covid-19 symptoms during the Covid-19 lockdowns.

In this study, selective sampling involved snowballing with scrutiny processes, where only those homeless people that are referred for recruitment were included based on capability of articulating facts needed and having suffered from Covid-19 symptoms during Covid-19. As per guidelines of exploratory design, snowballing continued from the participants selected purposefully up to 20 referrals using the snowballing technique, with referrals going through the same screening questions. Interview questions required yes/no answers on past infection or symptoms stated. Referred substance users were interviewed until data saturation was reached, bringing an end to the sample-frame.

2.5 Data collection instrument

An interview guide is a set of topics or questions which the interviewer entails to cover in a particular interview. This study utilizes the concept of semi-structured in-depth interviews to maintain relevancy to the study yet questions being open ended [29]. Therefore, in-depth interviews brought out experiences from participants in their own words which were coded for documentation.

An interview guide made of open-ended semi-structured questions developed by the researcher initially assessed demographic data such as gender, level of education and the informal place of living. From question 4, the participants were interviewed on exposure to Covid-19 and response mechanisms taken. This is assessed through symptoms that triggered health seeking behavior, types of health care consulted, determinants of chosen type of health care consulted and duration between onset of symptoms and seeking health care attention. Annexure (I) gives an overview of the data collection tool.

2.6 Pre-test

A sample of two randomly selected participants in Centurion, Pretoria, where substance users were offered food daily, was used to test the interview guide. Ambiguous questions were rephrased for clarity. During the pre-test, the following was noted: the ease of accessing the facilities, language, time taken during interview, recording/taking notes, conversational flow, and ambiguities [30].

2.7 Trustworthiness

This was explored through credibility, transferability, dependability, reliability, and conformability. Credibility was achieved through interaction with participants prior to the interviews and allowing those who gave usable data to go through the audio recordings. Transferability was ensured by comprehensively describing the methodology, data collection, data management and analysis until the report was developed. The researcher revised the analyzed information to assess other angles of data analysis giving comparable results to ensure dependability and used the Consolidated Criteria for Reporting Qualitative Research (COREQ) to structure the findings for reliability. Finally for conformability, constant revision of the data collected was done to support the argument backed by literature consulted through scoping review upon discussion of findings.

2.8 Data collection

In-depth individual interviews were conducted by skilled healthcare workers in places of substance users' habitation. These community healthcare workers under Best Health Solutions (NGO), holding National Diplomas in Social Work, had been working with the homeless substance users on programmes such as food distribution from the period prior to the Covid-19 lockdowns in South Africa, thus an already existing relationship was developed. Ethical clearance was obtained from the University of Venda (FHS/22/PH/10/2609) and permission to conduct study by Best Health Solutions which was already working with the participants in these set ups, representing the Department of Health in Gauteng for provincial permission.

Data collection was done in the streets and abandoned buildings over two weeks in January 2023 after Best Health Solutions was consulted to facilitate the process. Consent forms were filled after presenting information pertaining the study. Demographic data was collected first from participants without names and other confidential information, followed by the main, "*Did you suffer from flu-like symptoms during COVID-19 pandemic lockdowns*?". A positive

response allowed participants to be then probed to give more information on their choice of healthcare seeking behaviors and input on how to ease the process. Most of the participants understood isiZulu as obtained from the pre-test on 2 participants, thus an exchange with English training was done with community health workers to obtain uniformity according to preference of participants and address probing. Data from the pre-test was included in the main analysis to avoid valid information being left out from the study. Participants uncomfortable with voice recording and probing questions could withdraw their consent. Interview questions required yes/no answers on past infection or symptoms stated. Referred substance users were interviewed until data saturation was reached, bringing an end to the sample-frame. Interviews were held for a maximum of 18 minutes until data saturation was attained, where the target was 20 random sets without any confidential information questioned. Participants were thanked for their cooperation at the end of each session.

2.9 Data Management and Analysis

2.9.1 Data management

All voice recordings were described and matched to the interview transcripts developed. Participants who gave usable data could go through the recordings to validate the data from the questions. All recordings are stored for 5 years in a google drive account logged into by the student's Mvula account, sharing access with the supervisors, library, and relevant stakeholders.

2.9.2 Data analysis

Data analysis ensures grouping, synthesizing, and filling data collection materials in a well-planned manner which facilitates ease of duplicity and retrievability. Methods of data analysis employed were Interpretative Phenomenological data Analysis (IPA). This entails the use of a phenomenological research design with the goal of doing a detailed autopsy of homeless substance users' healthcare seeking experiences. Although Pietkiewicz et al [31] argues on the IPA design adopts only certain experiences, this study explored a comprehensive approach through multiple reading and taking of notes, interpretation of notes into themes, seeking connections and clustering themes to finally writing the IPA results .Familiarization with the recordings was done sorely by the principal researcher where audios were played repeatedly while taking notes, then translation from isiZulu to English and transcription being done intelligent verbatim. Relationships across themes were done with transcripts further reviewed by participants to confirm real data being extracted. All the codes noted in various

themes were grouped and described under themes. Formal and informal healthcare services were being grouped under the theme “types of healthcare services consulted”, marginalization, stigmatization, and social support under “challenges faced while accessing healthcare services” and level of education vs age being grouped under “social determinants of health. No analysis software or contractors were used.

3. RESULTS

3.1 Characteristics of participants

Table 3.1 describes the participants’ demographic characteristics as explored by the questions around their age and education. In relation to the predisposing factors, participants are aged between 21 and 40 years, with five participants having tertiary education, eight having matriculated and twelve having not reached matric levels of education. The spread of healthcare-seeking behaviors will be explored later across various education levels.

Table 3. 1 : Substance users’ demographic characteristics.

Participant ID	Age	Level of education
1	35	Matric
2	36	Below matric
3	38	Below matric
4	38	Below matric
5	50	Below matric
6	32	Below matric
7	31	Matric
8	27	Matric
9	33	Tertiary
10	25	Matric
11	24	Tertiary
12	31	Below matric
13	27	Below Matric
14	29	Matric
15	24	Below matric

16	21	Below matric
17	38	Matric
18	35	Tertiary
19	27	Matric
20	40	Matric
21	36	Tertiary
22	21	Below matric
23	33	Below matric
24	23	Below matric
25	40	Tertiary

The health seeking behaviors of homeless substance users in Gauteng Province

In this study the Andersen and Newman's seeking behaviour model framework was used to explain the objectives in the following way: type of health care services consulted represent the need, the determinants represent the predisposing factors, the challenges represent the enabling factors. Thus, the Theoretical Framework based findings of this study may be presented as in the figure below, where the need, predisposing factors and enabling factors are themes and their accompanying sub-themes:

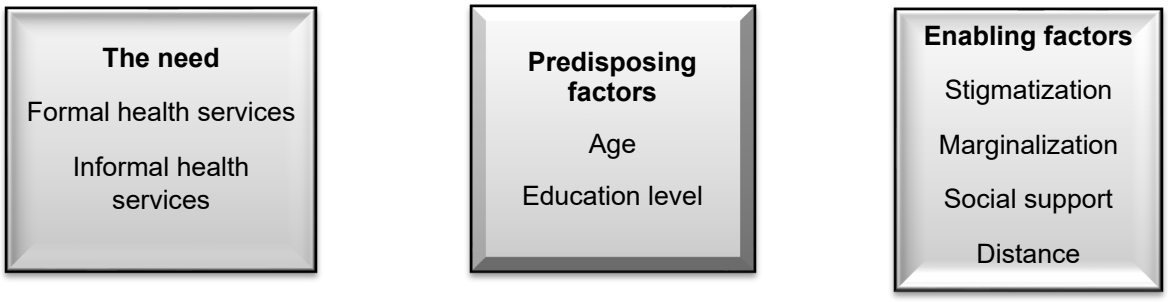

Figure 3.2: Andersen and Newman's seeking behavioural model-based on themes and sub-themes.

Table 3.2 below describes the summary of the findings in terms of objectives-based themes.

Table 3. 2 : Themes and sub-themes originating from data analysis.

Themes ⟶	Types of healthcare services utilized	Social determinants of healthcare seeking behaviors	Challenges faced accessing healthcare services
Sub-themes ⟶	Formal services	Level of education	Stigmatization
	Informal services	Age	Marginalization
			Empathy & social support

3.2 Theme 1: Types of healthcare services utilized.

All thirteen referred participants with COVID-19 symptoms used various types of healthcare services. The types were grouped into formal and informal healthcare services. This was assessed using the questions "*Who did you consult to get health care attention?"* and *"What did you do to get better?*" Answers were interpreted into the sub-themes formal and informal healthcare systems.

3.2.1 Formal healthcare systems

Five participants were quite knowledgeable of and confirmed using these services over the Covid-19 lockdowns. These were noticed to be either consulting hospitals or clinics and community healthcare workers, further described below.

3.2.1.1 Clinics and hospitals

A handful of four out of thirteen referred participants were able to approach hospitals and clinics after feeling symptoms of Covid-19, showing appreciation of formal health care services. They proved effective as participant (P7) due to vaccination, did not get sick while P4 never had problems again after being vaccinated against Covid-19.

According to P4, "…*I steamed, isn't they instructed us to cover our mouths, I also drank med lemon and went to the hospital where I was given iron tablets and I became better. For the second time, I was given an injection and sets of pills, that is when I got vaccinated*…."

Participant (P7) highlighted visiting the hospital and getting vaccinated, leading to not getting Covid-19 symptoms. This was a family decision for every member of the family to get

vaccinated, being a comprehensive factor of family influence to seeking healthcare aid from hospitals. According to (P7),

"…*I went to the hospital. It wasn't my choice; it was the household (family decision) choice bra. It's either you do it or you going to go …"*

"…Not at all, because I went to vaccination…."

One participant (P21) was already accessing healthcare services for other comorbidities, thus being alerted on preventative means against Covid-19. Strategies taken from thenceforth were self-isolation as a norm, their living set up in abandoned shelters. When asked which services were consulted and if having suffered from Covid-19, respectively:

(P21) "…*the fortunate part is I got injured so I had to go to hospital so that was the only way that I could confirm that I'm not contaminated…"*

(P21) *"…Unfortunately, not because we are junkies, we like privatize ourselves like we were being indoors…"*

And preventative measures learnt from hospitals were mentioned through:

(P21): "… *Mostly it was to isolate myself, stay somewhere where there are no people and try to get warm be away from people because you did not know how you can get this. So, it was me like trying to protect myself because that was the message around that time*…"

Participant (P15) responded by: "*I went to the hospital and consulted a doctor."*

3.2.1.2 Community healthcare workers

Community healthcare workers served as means of healthcare distribution during the national lockdown period. Holistic measures had to be taken in spreading awareness on disease prevention and treatment, thus community healthcare workers also educating homeless substance users on such strategies. According to participants (P4) and (P18) respectively when asked "*Who did you consult to get health care attention?",*

"…*I steamed, isn't they instructed us to cover our mouths…"*

"...I did see this sister who gives us food made me drink things like medication…"

3.2.2 Sub-theme 2: Informal systems

Informal systems influence self-diagnosis and result in self-prescription of either over-the-counter medication or traditional medicine, other informal medicines, or nothing at all. They are mostly influenced by social characteristics of population groups such as cultural and self-beliefs. In this study, this is clear from participants who did not mention using clinics/ hospitals and consulting community healthcare workers when asked, "*Who did you consult to get health care attention?"* and *"What did you do to get better*?"

3.2.2.1 Self-care, family, and friends

Eight participants relied on advice they shared with each other whilst some were dealing with the pandemic. Decision making is influenced in circles where people share ideas as a community. The assessment questions which brought up behavioral aspects under the influence of community set up is,

"*So, who did you consult to get health care attention* "and "*What did you do to get better from the symptoms?* ".

3.2.2.3 Self-prescribed medicine

When assessed on strategies taken and methods of treatment, common self-prescribed means of treating symptoms included taking med lemon and cough syrup.

In the study, participants who made use of self-prescribed remedies are (P6, P9, P23, P24), with their respective responses from the assessment being:

P6: *"…I did not go to the clinic …. Just the way you treat flu, I took Med Lemon…"*

P9: "…*no one… I drank med lemon…"*

P23:" … *I did not go to the clinic; I find means to help myself… I take Med lemon or take drugs*…"

P24: *"…no one… I got myself a cough mixture…"*

3.2.2.4 Physical distancing

Physical distancing involves strategies such as isolation and quarantining. This was practiced by one participant, (P21) who had other comorbidities except for Covid-19, but prior to seeking healthcare attention, participant (P21) isolated themself to reduce risk of transmission and

burden from the symptoms they experienced. The response given when assessed on the strategy used was.

"… Mostly it was to isolate myself, stay somewhere where there are no people and try to get warm, be away from people because you did not know how you can get this. So, it was me like trying to protect myself because that was the message around that time…"

3.2.2.5 Unknown substances

In the study, two participants (P2 and P20) relied on self-diagnosis which led them to choose any closest means available to treat themselves by reference such as unknown substances as the active ingredients were not known. When asked on what strategies they used or who they consulted:

(P2): *"…there is no one I spoke to, sometimes you see I get pills from this other man who he uses and gets better … "*

(P20): *"…me, myself, and I……. I cleared my chest for hay fever because it was very dark…"*

two out of thirteen referred participants treated themselves using unknown substances. The effectivity of these substances is not really known against Covid-19.

3.3 Theme 2: Determinants of health seeking behavior amongst homeless substance users.

As all the participants were homeless as per inclusion criteria of the target population, accommodation was uniform across them. Therefore, social determinants of health were assessed by the questions "*Please confirm your age, how old are you*?" and "*What is your level of education?"* Answers on level of education and age were then linked to the type of healthcare services used. Table 3.3 summarizes the spread of the social determinants of health guiding this study.

Table 3. 3: Determinants of health seeking behaviors.

Participant ID	Age	Level of Education	Type of healthcare service used	
			Formal	Informal
22	23	Below Matric		Self-prescribed
24	23	Below Matric		Self-prescribed

15	24	Below Matric	Hospital	
14	29	Matric		Unknown
7	31	Matric	Hospital	
6	32	Below Matric		Self-prescribed
9	33	Tertiary		Self-prescribed
23	33	Below Matric		Self-prescribed
18	35	Tertiary	Community Healthcare workers	
2	36	Below Matric		Self-prescribed
21	36	Tertiary	Hospital	
4	38	Below Matric	Community healthcare workers & hospital	
20	40	Matric		Self-prescribed

The age range was divided into three points, the lower quartile, median and upper quartile values 21, 30 and 40. One referred participant below the age of 30 (P15) used formal healthcare services and three participants (P14, P22, P24) used informal services. Of which two of them who used within the upper quartile range, four participants (P4, P7, P18, P21) used formal healthcare services while five participants (P6, P9, P23, P2, P20) used informal healthcare services.

Of the seven participants who had no matric, five (P2, P6, P22, P23, P24) used informal healthcare services, while two (P4, P15) used formal healthcare services. Among the matriculated participants, two (P14, P20) used informal healthcare services, while one (P7) used formal healthcare services. Among the three participants who had attended tertiary education, two (P18, P21) used formal healthcare services, while (P9) used informal healthcare services.

3.4 Theme 3: Challenges faced whilst accessing formal healthcare systems.

A level of resistance to perceived strategies is always met wherever there are mitigation systems against a particular matter, even in public health. It can be either reactive or as a form of a proactive choice due to different belief systems. In this case, various challenges were noted relevantly by participant whilst trying to access formal healthcare systems during the Covid-19 lockdowns. Data in this section is based on the question "*What challenges did you face in trying to access health services in general*"?

Some of the challenges faced were a barrier to formal healthcare aid, thus causing substance users to forgo them and use informal healthcare systems during the Covid-19 lockdowns. Challenges met entail procrastination and lack of efficiency by healthcare professionals as presented by participant (P23) who mentioned that.

"…Some of them don't give use attention and some of them marginalize and keep telling us of the side effects of the drugs we take…"

Other participants interpreted such measures as stigmatization as recorded from participant (P20) who mentioned that.

"…But even in the clinic there's just some stigma in trying to find out what's wrong with you, but a lot of people are too scared to go…"

Other matters arising whilst trying to access formal healthcare systems entailed empathy for this key population group. Other participants mentioned discomfort in communication used, which reduces their reliance on formal healthcare systems. One participant said:

P4: "…they were instructing me to wear masks, treating me like a rotten person, but at the end of the day, they helped me…"

Some participants do not appreciate being checked for other comorbidities. Although this becomes an integrated approach to healthcare for prospective patients, other patients did not like it. In this study, Participant (P15) voiced that.

"…entering the hospital gate, the guard found out that I have high blood and other symptoms. But they treated me right…"

Physical distancing was enforced in most institutions, resulting in queues being long due to gaps to be seen between two individuals or more. According to participant (P21).

"…eish it was queues, a lot of queues were very different besides…"

3.5 Strategies to increase access to healthcare services.

Insights into ways of cubbing challenges in accessing healthcare services were explored. Various concepts spawned up as assessments were made to have an autopsy of what substance users thought would help mitigate disease burden upon access to healthcare services. Already existing strategies to reach key populations have been namely the use of mobile community healthcare workers and social media for those who can afford smartphones. This was assessed using the question, "*What can be done to increase access to health services?*" noticing diverse answers. According to various participants, it was noted that:

Two participants (P4 and P23) suggested the use of community healthcare workers who are empathetic, passionate and understand the life of homeless substance users. Psychosocial training of community healthcare workers is challenged for them to involve more content preparing them to deal with various key populations such as substance users who are homeless. These participants said:

(P4) "… For them to get empathetic personnel, just not anyone. When working in this department, it requires someone with patience and with good listening skills. Without patience, it is not conducive…"

(P23) "… for them to employ empathetic and have time for us, people who will understand us…"

Two participants' (P15 and 21) responses were more focused on proactive measures in catering for substance users, with participant (P21) being broad on issues which require improvement. Improvement in this case touches programmes which involve substance users who are homeless to assess their level of efficiency. Besides that, constant monitoring of healthcare status of these key population groups is brought up. Two participants mentioned that:

P15, *"…They should just keep on checking on the guys without them standing up for themselves to try and go to the hospital…"*

P21, *"…. for me it is because you do have old people who cannot access or have long queues. So, door to door campaigns could help more and we need more health workers to be hired and basically if they could take more students just to uh pre-train them something like that, just for them to get to have the knowledge of the work that they doing as much as they are studying being healthcare workers. So, more bursaries, more opportunities regarding health so that you can have more…"*

One participant (P22) highlighted issues around outreach to them. This is like the earlier points raised, but also brings out mobile primary healthcare facilities moving around to offer healthcare services to such key population groups, through:

(P22) *"… maybe they should bring us mobile clinics…"*

4. DISCUSSION

The findings of this study bring out various types of healthcare services used by homeless substance users. Some of them include hospitals and clinics under formal healthcare services. Postulations were made of formal healthcare as aid from clinics/ hospitals and community healthcare workers as they played a vital role in disease burden reduction and infection control. In relation to findings in Marseille, homeless people are more familiar with infectious diseases and associated protective measures, which translate into good skills and practices in dealing with Covid-19 [32]. Participants were able to approach hospitals and clinics for aid amid a pandemic, even though some had various comorbidities they were facing. Findings by Dada et al [33] on few substance users seeking healthcare aid are still visible comparing the number of participants using formal facilities and not, being a ratio of 5:8, respectively. Good relations thus continue to be implemented between substance users and formal healthcare structures. In the principle of targeting and reaching key populations with related health interventions according to the South Africa National Strategic Plan, healthcare seeking behaviors have been impressive with programmes such as COSUP making it easier for substance users to approach sites for healthcare aid [34]. Although facilities were used, some participants preferred services from community healthcare workers they had worked with in other programmes who dynamically aided related to Covid-19 mitigation. This strategy is close to findings by Stonehouse et al [35] on community-oriented means overcoming the barriers homeless people face in accessing health and social services. Therefore, new discoveries are being made on reduction in postponing seeking healthcare services slowly but surely nullifying concepts on the rise of substance users postponing healthcare [36]. Community healthcare workers also serve as a key source of formal services as they supply credited information on health education and mitigation strategies. Davis et al [37] support their involvement as they increase early interventions in reducing disease burden.

The study realized the following strategies to treat COVID-19 symptoms being common formal healthcare services used: vaccination, medication, and other medical strategies. Vaccination was amongst one of the key formal healthcare services in preventing infection with Covid-19, as participants who got vaccinated did not experience any symptoms, not further consulting hospitals. This proves the effectivity of Covid-19 vaccines against incidence and mortality rate

as presented in Iran [38]. When supported with medication targeting symptoms and reducing virus prevalence as participants did, more effectiveness is noted from those who visited hospitals. However, pills curing Covid-19 Ivermectin still face pharmacological contradictions as supported by Popp et al [39] who encourage further adoption on developing Covid-19 medicine.

Findings reveal that during the Covid-19 lockdowns, public health programmes were hybridized to ease pandemic needs. Community healthcare workers involved in homeless feeding schemes also offered health education, mitigation strategies and medicine to homeless substance users. Taufik and peers [40] also recorded that applying proper cough etiquette through wearing masks and covering mouths, prevents the spread of Covid-19, which is what was done by participants under the advice from community healthcare workers. Marcus et al [41] echoe effective communication skills and providing of good services being key in reducing abscondment of services. In this study, this is seen as mitigation strategies by the government in partnership with COSUP were abandoned from Caledonian stadium due to poor sanitary services, shortage of drug of choice and poor initiation to the programme. Improvement in such facilities or considering well furbished facilities also motivates prolonged care.

Use of informal healthcare services which are mostly based on advice from self, family, and friends was also seen. There are findings which support concept of physical distancing as the future of spread reduction [42]. This was noted in participants who preferred to be in isolation from the public as they felt symptoms of Covid-19. Therefore, this is effective if combined with over-the-counter medicines such as med-lemon and cough syrups to reduce disease incidence rates, although poverty characteristics could inhibit access to such drugs as revealed on access to healthcare services by Satre et al [43]. The study also shows informal healthcare services being used by homeless substance users having unknown substances illuminating to being as panic and survival mode were being experienced in different communities during the pandemic. These were in the form of unknown self-prescribed drugs and pills circulating amongst them taken without knowledge of what they are. Kamazima et al [44] made some discoveries on some conspiracies of *legana* or *umhlonyane* being used to treat Covid-19. Despite their effectiveness to a certain extent, these methods are not confirmed by regulatory boards such as SAHPRA, posing unknown pharmacodynamic effects, thus Dr Mkhize under the National Department of Health also not endorsing them although the President of Madagascar had seen no problem [45].

Social determinants influencing participants varied and were brought out as they consulted various types of healthcare services. As stated by Prata and colleagues that there are three

major social determinants of health influencing healthcare seeking behaviors of the homeless in South Africa [46]. Among these, level of education and age came up as cornerstone social determinants of health influencing homeless substance users. In this study, 75% of the youth below the age of 30 had not surpassed their matric level of education, of which 33% of them used informal healthcare services. Participants were able make conclusive decisions on infection or not and which facilities to consult as in line with a study in Lusaka, Zambia where 73% of homeless young adults based on their level of education, were associated with low-risk belief during Covid - 19 lockdowns [47]. On the other hand, 45% of the adults used formal healthcare services. Among the 45%, 55% of the adults had obtained their matriculation and further tertiary education. In comparison with the youth below the age of 30, there is high use of formal healthcare services among adults as, which corresponds to low levels of education among the youth being related to low levels of healthcare seeking perception and use of formal healthcare services [48, 49].

In as much as formal healthcare services were workable strategies, substance users faced barriers when trying to access them. Participants voiced out that they are not being treated with equity, unfairness, discrimination, and stigmatization from healthcare professionals being experienced when attending formal healthcare systems. These findings relate to those of Allen and colleagues [50] who echoed on barriers to healthcare being associated with discrimination. Evidence expands on effects of postponing healthcare, which also comes out from barriers faced by participants with fears of being discriminated, thus delaying the period of seeking healthcare aid [36]. Furthermore, participants were worried about ethical communication from healthcare administration, where less empathy demotivated their reliance on formal healthcare. Dumenco et al [51] therefore, realized that showing compassion to substance users increases their healthcare seeking behaviors on attending formal healthcare services.

This study also explored and uncovered suggestions from substance users based on the current challenges they face, which could help reduce barriers to accessing formal healthcare services. According to Davis et al [37], highlights are made on targeted interventions being key in improving healthcare seeking behaviors. This corresponds with substance users who see it important to train substance users in their community to help in programmes targeting them. Therefore, this also talks about changing course content and regulatory boards' laws to be holistic towards substance users as supported by the need to lobby regulatory bodies to policy change [34]. A drive to internships and in-service training relating to healthcare rights of substance users to be addressed to avoid stigmatization around various groups of substance users. This corresponds with the discoveries from Perri et al [52] on local healthcare programmes having to involve not only indigenous organizations, but also indigenous people

from those key population groups. This shows that more substance users need to be engaged with the Government and Private organizations.

Furthermore, healthcare seeking is a continuous phenomenon, with various communicable diseases appearing every now and then. Rogers et al [53] explore specific clinical measures to be discovered and implemented. This study corresponds with this strategy as findings present substance users suggesting mobile primary healthcare services assessing their health on the ground proactively and constantly aiding especially to the children and elderly. This supplies a dynamic approach to making sure healthcare services are constantly available for key population groups, addressing equity in healthcare. It is essential to acknowledge that substance use amongst homeless individuals is a complex issue in relation to their healthcare seeking behaviors, challenging policy makers to develop intimate strategies addressing such population groups. Addressing the healthcare needs of homeless individuals requires comprehensive and tailored interventions that consider their unique circumstances and challenges. By implementing targeted policies and support systems, we can work towards improving healthcare access and overall well-being for homeless substance users, especially during times of crisis.

5. LIMITATIONS

In as much as the findings of this study were able to cover much ground to address the objectives, certain parameters limited the study from fully standing the province, later the country. Data collection occurred in Tshwane, Gauteng province, thus findings cannot be generalized across all provinces.

6. RECOMMENDATIONS

The study can be rolled out in other provinces with higher number of homeless substance users such as Western Cape with people presenting different demographic characteristics and social determinants of health. Researchers in the future can use this study as a baseline to assess this population group's healthcare seeking behaviors on different pandemics arising. The Department of Social Development should include capable homeless substance users in training healthcare programmes aimed at persuading this key population group to use formal health care and create awareness to demystify marginalisation and stigma.

7. CONCLUSIONS

Healthcare seeking behaviors of homeless substance users during the pandemic was of concern to some extent as more informal healthcare services were utilized as compared to formal healthcare services. However, some substance users, especially young ones are less likely to use formal health services due to stigma, distance, and marginalization.

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ANNEXURE 1: INTERVIEW GUIDE

Interview guide for homeless substance users residing in Gauteng.

Introduction

This study investigates the healthcare seeking behaviours of homeless substance users residing in Gauteng during COVID-19 lockdowns. Your comprehensive participation would be greatly appreciated. Please take note that privacy of answers given will be observed, as well as confidentiality. Thus, truthful answers are on a willing basis and will provide an accurate understanding of the situation.

Site:…….. **Participant Number** ☐

Interview questions

1. What is your gender?
2. What is your level of education?
3. Are you staying at home or in the streets? and where do you stay?
4. For how long have you been on drugs?
5. For how long have you stayed in the streets?
6. Do you have children? If any, how many?
7. Did you suffer from flu-like symptoms during COVID-19 pandemic lockdowns?
8. What did you do to get better from the symptoms?
9. Who did you consult to get health care attention?
10. Why did you choose that option?
11. What challenges did you face in trying to access health services?
12. What can be done to increase access to health services?
13. Which symptoms made you to seek health care attention?
14. What was the duration between the onset of symptoms and your eventually seeking health care attention?

ANNEXURE 2: ETHICAL CLEARANCE

ETHICS APPROVAL CERTIFICATE

RESEARCH AND INNOVATION
OFFICE OF THE DIRECTOR

NAME OF RESEARCHER/INVESTIGATOR:
Mr. MA Mnkandla

STUDENT NO:
21010106

PROJECT TITLE: Healthcare seeking behaviours of homeless substance users residing in the Gauteng Province of South Africa during COVID-19 lockdowns.

ETHICAL CLEARENCE NO: FHS/22/PH/10/2609

SUPERVISORS/ CO-RESEARCHERS/ CO-INVESTIGATORS

NAME	INSTITUTION & DEPARTMENT	ROLE
Prof TG Tshitangano	UNIVEN, Public Health	Supervisor
Dr AG Mudau	UNIVEN, Public Health	Co - Supervisor
Mr MA Mnkandla	UNIVEN, Public Health	Investigator – Student

Type: **Masters Research**
Risk: **Minimal risk to humans, animals, or environment (Category 2)**
Approval Period: **September 2022 – September 2024**

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: August 2022

Name of the HCTREC Chairperson of the Committee: Prof MS Maputle

Signature MSMaputle

UNIVERSITY OF VENDA
OFFICE OF THE DIRECTOR
RESEARCH AND INNOVATION
2022 -09- 27
Private Bag X5050
Thohoyandou 0950

ANNEXURE 3: PERMISSION TO CONDUCT STUDY

The Best Health Solutions

6 2nd Street, Orange Grove, Johannesburg, South Africa|| Phone: +27 (0)11 057 6661|| Fax: +27 (0) 86 598 5221
E-Mail: info@besthealthsolutions.co.za Web: www.besthealthsolutions.co.za

13 December 2022

RE: PERMISSION TO CONDUCT STUDY

This serves to confirm that Mayibongwe M.A Mnkandla has been granted the permission to conduct the study on *healthcare seeking behaviors of homeless substance users residing in the Gauteng province of South Africa during Covid-19 lockdowns*. It is advised that the reason is for a Master's in Public Health academic research, under the supervision of Prof T.G Tshitangano and Dr A.G Mudau. Community healthcare workers under the supervision of Mr Tshepo M Ndlovu can assist in data collection.

Any work carried out beyond this scope must be communicated in writing and discussed prior.

Regards

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ANNEXURE 4: PROOF READING AND EDITOR'S LETTER

Editing and Proofreading Report

29 June 2023

This is to certify that I, Dr Mujakachi, have proofread and edited a dissertation titled ***Healthcare-seeking behaviours of homeless substance users residing in the Gauteng Province of South Africa during COVID-19 lockdowns*** by Mayibongwe Mkhaliphi Abel Mnkandla.

I carefully read through this dissertation, focusing on proofreading and editorial issues. The recommended suggestions are highlighted in red ink and can be accepted or rejected using the Microsoft Word Track Changes System. The student must effect these changes before the final submission.

Yours Sincerely

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ANNEXURE 5: TURN-IT IN REPORT

HSB MNKANDLA 21010106

ORIGINALITY REPORT

11%	11%	5%	6%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

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