Barriers to Treatment Among Young Adults Living With a

Substance Use Disorder: Findings From Working With the Community-

Oriented Substance Use Program in Tshwane, South Africa

by

Tichaenzana Nyashanu

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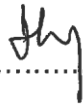
Above all, I wish to acknowledge and thank the Lord almighty for granting me the opportunity and knowledge to accomplish this thesis.

Declaration

I, Tichaenzana Nyashanu, declare that this thesis is my original work except where I used or quoted other sources, and that I have acknowledged these sources.

I further declare that the work I am submitting has never been submitted before for another degree to any other university or tertiary institution for examination.

Signature: ....

Date: January 2023

Acronyms and Abbreviations

ABM   Andersen's behavioural model

AA   Alcoholics Anonymous

ASSIST   The Alcohol, Smoking and Substance Involvement Screening Test

BQ   Barriers Questionnaire

BTS   Bartlett's Test of Sphericity

CAG   Community Advisory Group

CHW   Community health workers

COSUP   Community-Oriented Substance Use Programme

CR   Critical realism

DSM   Diagnostic and Statistical Manual of Mental Disorders

EFA   Exploratory factor analysis

FGD   Focus group discussion

HCV   Hepatitis C virus

HIV   Human immunodeficiency virus

ICD   International Classification of Diseases

KMO   Kaiser-Meyer-Olkin

LMICs   Low- and middle-income countries

MMR   Mixed methods research

NA   Narcotics Anonymous

NSP   Needle and Syringe Exchange Programme

OST   Opioid substitution therapy

PCA   Principal component analysis

PTN   Perceived treatment need

PWID   People who inject drugs

SACENDU	South African Community Epidemiology Network on Drug Use
SAMHSA	Substance Abuse and Mental Health Services Administration
SEM	Socio-ecological model
SPSS	Statistical Package for the Social Sciences
SSI	Semi-structured interview
SUD	Substance use disorder
UNODC	United Nations Office on Drugs and Crime
USA	United States of America
WHO	World Health Organization

Abstract

Despite the high prevalence of substance use disorders (SUDs), utilisation of treatment services remains low. This study sought to explore and measure treatment barriers in order to gain knowledge and an understanding of such treatment barriers, and to promote contextually relevant interventions. The study was conducted within the Community-Oriented Substance Use Programme (COSUP), a substance-use harm-reduction initiative in Tshwane, South Africa that offers treatment relating to different substances. A mixed methods approach was used in this study which was conducted in three phases. In the first phase, 15 purposively sampled peer educators participated in two focus group discussions (FGDs), and in the second (quantitative) phase, 206 randomly sampled young adults receiving treatment through COSUP completed a self-report questionnaire. In the third phase, semi-structured interviews (SSIs) were conducted with 15 COSUP clients. Thematic analysis was used to analyse the qualitative data obtained, and descriptive analysis was performed on the quantitative data. The two strands of data were converged to enhance the understanding and interpretation of treatment barriers. Themes emerged from the study, relating to factors that either impede or facilitate service utilisation and these included fragmented services, stigma-related barriers, an information gap, lack of perceived treatment need and lack of perceived treatment efficacy, privacy concerns, lack of resources and support, denial and unreadiness to give up substance use, culture and religion/spirituality. Strategies identified to improve services and to build community resilience revolved around creating greater community awareness about substance use and treatment services, improving cultural competence, building social networks to support individuals and communities affected by SUDs, providing more accessible services, and advocating greater prioritisation of substance use treatment and mental health services in general.

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Chapter 1: Introduction

1.1 Background to the Study

The focus of this introductory chapter is on presenting an overview of substance use. The chapter provides information on global epidemiological data on substance use, causes of high substance use, low treatment utilisation, and the existing wide treatment gap. By analysing problems associated with the use of substances, a better understanding is gained of the extent of substance use in the South African context. The terms substance use, misuse and abuse are often used interchangeably, but the terms abuse and misuse are often viewed as perpetuating stigmatising attitudes, and hence the more common use of and preference for the terms substance use, dependence, harmful substance use or substance use disorder (Ashford et al., 2018; Martinelli et al., 2020).

Among a myriad of public health issues, the problem of substance use is one of the significant factors that have a negative impact on the health, productivity, economy, and social aspects of communities (Whiteford et al., 2015). Harmful substance use relates to the illicit consumption (in a manner not consistent with medical or legal guidelines) of naturally occurring or pharmaceutical substances, motivated by the desire to change the way in which the individual feels, thinks or behaves, with little understanding of or no consideration for the damaging physical and mental side-effects it causes (Sahu & Sahu, 2012). Various authors point out that the impulsive use of substances, apart from having apparent deleterious health consequences in the form of distress, clinically significant impairment of functioning or both, can culminate in substance use disorders (SUDs) (Maynard et al., 2017; Sahu & Sahu, 2012). Substance use can have a negative effect on individuals irrespective of their age, gender, race, income levels, and other demographic and socio-economic variables (Maynard et al., 2017; Wu, 2010). Efforts to ameliorate the health harms associated with SUDs are often hampered by several attitudinal and structural barriers to treatment. Additionally, SUDs are complex

because they often have syndemic relationships with other mental health disorders, such as borderline personality disorder, and physical disorders such as hepatitis B and C (Tsai et al., 2019).

1.1.1 Context of the Study

The study was done in collaboration with the Community-Oriented Substance Use Programme (COSUP). COSUP is a collaboration between the University of Pretoria's Department of Family Medicine and the City of Tshwane Metropolitan Municipality, and is implemented at 17 sites across Tshwane (Hugo et al., 2020). COSUP is the first publicly funded substance-use harm-reduction initiative in South Africa and has been in existence for just under a decade, with most of its sites being found alongside already existing community services facilities, mostly hospitals (Hugo et al., 2020). The core service of COSUP's package is engineered around providing screenings, assessments, diagnoses, brief interventions, medical and counselling treatment services, and referrals for clients with substance use-related problems. COSUP also provides social services and skills development programmes. The provision of community-oriented primary care services, such as COSUP, is an attempt to bridge treatment gaps by penetrating communities and delivering primary healthcare and substance use-specific services. COSUP's staff consists of healthcare workers such as medical doctors, clinical associates, community health workers (CHWs), and social workers (Hugo et al., 2020; Scheibe et al., 2020). Figure 1 illustrates the staffing structure at COSUP.

Figure 1

COSUP's Staffing Structure
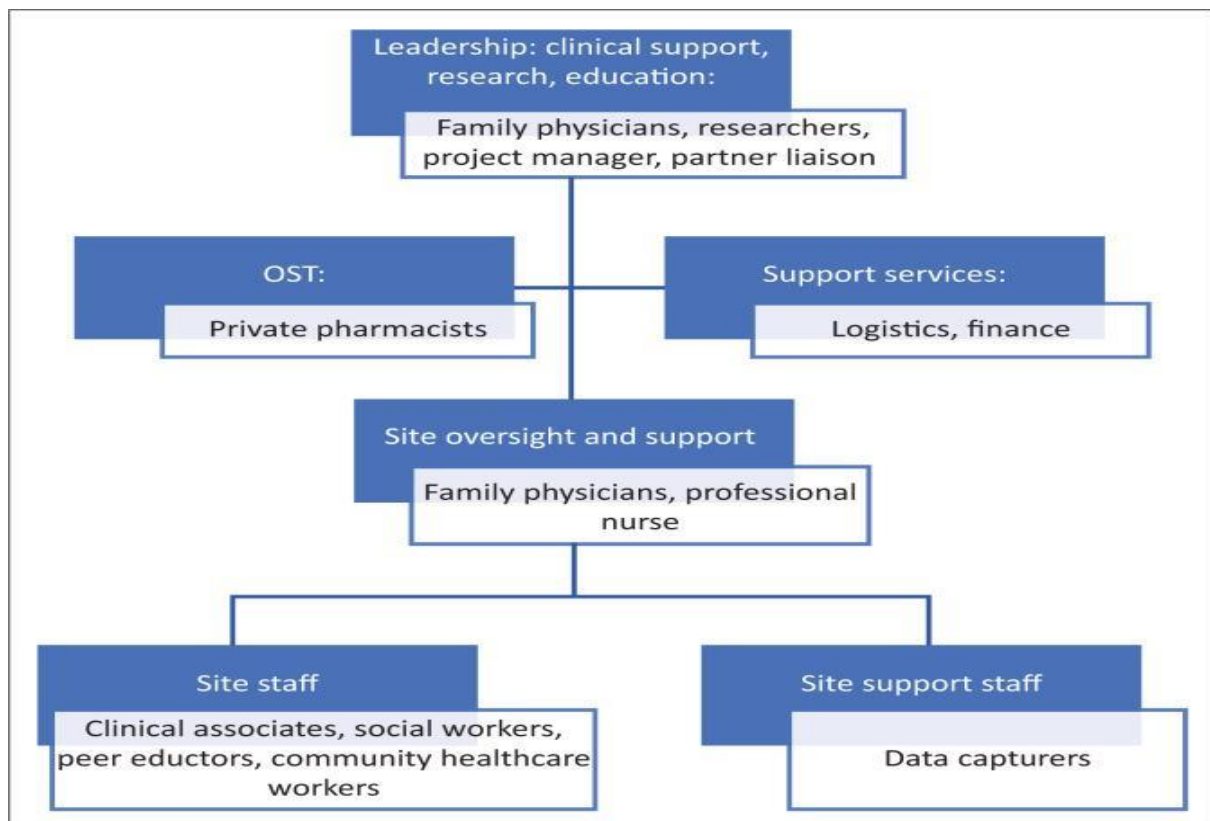
Note. Reprinted from 'Harm Reduction in Practice: The community-oriented substance use programme in Tshwane', (p. 3), by Hugo et al. (2020) in *African Journal of Primary Health Care and Family Medicine*, *12*(1). https://doi.org/10.4102/phcfm.v12i1.2285

Clients commonly present themselves for substance use treatment for one or more combinations of opioids, cannabis, alcohol, inhalants, amphetamines, or sedatives. The use of opioids, especially heroin, is on the rise, and heroin is one of the most potent drugs accessible to young people (Eastwood et al., 2018). Although COSUP focuses on a wide range of SUDs, most COSUP patients present heroin use disorders. In COSUP, heroin dependence is mostly treated using opioid substitution therapy (OST) (Hugo et al., 2020).

OST is one of the most sought-after treatment services for people using opioids (Johnson & Richert, 2015). OST is an evidence-based treatment intervention for opioid

dependency that is recommended by the World Health Organization (WHO) (World Health Organization, 2009). According to the WHO, the pharmacological approach to OST in opioid dependence treatment is based on either opioid withdrawal or agonist maintenance. Opioid withdrawal focuses on the gradual cessation of an opioid agonist (e.g. methadone) or sudden opioid cessation, whereas agonist maintenance treatment consists of the daily administration of an opioid agonist with the aim of the reduction or cessation of the use of illicit opioids (WHO, 2009). Although COSUP operates in the context of agonist maintenance treatment with a harm-reduction orientation, its flexibility offers its clients the option to withdraw if it is their informed choice.

1.1.2 Global Epidemiological Data on Substance Use

In 2018, around 269 million people worldwide used substances, which was 30% more than in 2009, and over 35 million people suffered from SUDs (Barati et al., 2021). These statistics show a steep upward trajectory in substance use. The United Nations Office on Drugs and Crime (UNODC) presented this data in its *World Drug Report 2017* on substance use among adults aged between 15 and 64 years (Peacock et al., 2018). The report stated that alcohol use disorders globally had the highest estimated prevalence in 2015 with 18.4% of these adults showing heavy episodic alcohol use. Of the group surveyed, 15.2% smoked tobacco daily. Further, the age-standardised prevalence of substance dependence per 100 000 people was 843.2: cannabis use stood at 259.3; 220.4 people used opioids (including prescription opioids and opiates); 86.0 used amphetamines; and 52.5 used cocaine. Eastern Europe had the highest prevalence of alcohol use disorders, whereas North Africa and the Middle East had the lowest prevalence (Peacock et al., 2018). The high-income North American regions, such as Canada and the United States of America (USA), recorded the highest prevalence rates of cannabis, opioid, and cocaine use disorders. The highest prevalence of age-standardised rates of amphetamine dependence was found in Australasia

(Australia and New Zealand). This region also had high rates of cannabis, opioid, and cocaine use disorders (Barati et al., 2021; Peacock et al., 2018). In contrast, sub-Saharan Africa had the lowest age-standardised prevalence of cannabis, opioid, and cocaine use.

In South Africa, the use of cannabis is likely to rise, considering the legalisation and decriminalisation of the possession of recreational cannabis in a private place for private use, and of the cultivation of cannabis by adults, as promulgated by the relevant September 2018 Constitutional Court ruling (C. Parry et al., 2019). There is a likelihood that people would cultivate cannabis not only for private use, that access to cannabis would increase in communities, that cannabis prices would fall, that high-potency cannabis would be developed, and even that calls for full legislation would be strengthened (C. Parry et al., 2019). As a consequence, this may have a negative impact on the health of individuals and on the public health system.

1.1.3 Causes of High Substance Use

Harmful substance use can be attributed to psychosocial, biological, and environmental factors (Sahu & Sahu, 2012). According to these authors, psychosocial factors may encompass psychological distress, social rebelliousness, early initiation, curiosity, peer pressure, role modelling/imitation, and intrafamilial conflicts. Recent research has shown that the uncertainties and anxiety caused by the emergence of the COVID-19 pandemic were psychological stressors that resulted in the rise of stimulants and opioids use (Zaami et al., 2020). Biological causes of substance use are rooted in family history, genetic predisposition, reinforcing effects of drugs, pre-existing medical or psychiatric disorders, and withdrawal effects and craving (Ouzir & Errami, 2016). Dhawan and Mandal (2017) observe that there is a high prevalence of the use of 'gateway substances', such as alcohol and cannabis, among young adults. Gateway substances are viewed as potentially opening doors to the use of much harder and addictive drugs such as cocaine, heroin, and methamphetamine (Mametja & Ross,

2020). The rising substance use-related problems have been attributed to some environmental factors (Sahu & Sahu, 2012) such as the increasing production, promotion, distribution, and affordability of drugs. Consequently, substances are widely available and accessible to young adults and the general population. In some instances, the lack of political will to curb the illicit production and sale of drugs has precipitated an increase in substance use (Wilkinson & Ritter, 2021). The discussion of the causes of substance use is expanded on in Chapter 2.

1.1.4 Problems Associated With Substance Use

About 1.5% of the global disease burden emanates from the use of alcohol and illicit drugs (Ritchie & Roser, 2019). According to research, young people are more predisposed to developing SUDs (M. H. Collins et al., 2007). Moreover, young people who engage in regular substance use before the age of 15 years are at an elevated risk and are more susceptible to developing physical health diseases such as liver disorders and type 2 diabetes later in life (Kumpfer, 2014). Research has also indicated that alcohol foetal syndrome may occur in children born from mothers who used alcohol excessively during their pregnancy (Hughes et al., 2016). SUDs contribute significantly to the global burden of diseases which is assessed using the disability-adjusted life year – a time-based measure that adds up the years of life lost due to premature death and the years of life lost due to time lived in states of less than full health (Vos et al., 2017). The major risk factors for disability and premature loss of life emanate from alcohol, tobacco and illicit drug use (Peacock et al., 2019).

SUDs, in addition to causing health risks and harm to the population, result in economic costs such as expenditure relating to healthcare, law enforcement, and lost productivity (Rehm et al., 2009). Educational factors such as academic failure, and socio-economic factors such as lost productivity, are some of the consequences of SUDs, as a significant proportion of people (young adults) using substances are still pursuing academic endeavours or are in the working age group (Kumpfer, 2014). Socio-economic consequences

of SUDs extend to dysfunctional family life, relationship failure, drug-use-motivated crime, increased risky sexual behaviour, and accidental injuries and deaths (M. H. Collins et al., 2007; Kumpfer, 2014).

1.1.5 Low Treatment Utilisation and Wide Treatment Gap

According to Kohn et al. (2004, p. 859), a treatment gap denotes 'the absolute difference between the true prevalence of a disorder, and the treated proportion of individuals affected by the disorder'. Kohn et al. (2004) estimate the global treatment gap for SUDs at 78.1% (i.e. 78.1% of people in need of treatment for SUDs do not get treatment). Current research shows that this percentage can be as high as 95% in low- and middle-income countries (LMICs) (Nakku et al., 2019). Bridging this treatment gap is problematic, and there is a paucity of empirical evidence on how to do this. In South Africa, a meagre 5% of the total health budget is typically allocated to mental health, and this has done little to improve the situation of mental health services, research, and policy implementation (Docrat & Lund, 2019; Mugisha et al., 2017). Connery et al. (2020) highlight that, despite the high prevalence of SUDs globally, treatment utilisation remains low in both high-income countries and LMICs, resulting in a wide treatment gap. Compared to health conditions such as cancer and the human immunodeficiency virus (HIV) (Connery et al., 2020), SUDs show the widest treatment gap. Although mental health illness prevalence rates in South Africa are as high as one in three adults in their lifetime, there are no data (neither in South Africa nor in LMICs) on the gap in the treatment of mental disorders, including SUDs (Ruffieux et al., 2021).

1.2 An Overview of Substance Use in South Africa

The brief general overview of SUDs in South Africa presented in this section highlights the country's epidemiological data on SUDs, the occurrence of SUDs among young adults, the consequences of substance use, and the gap in the treatment of people using substances. Additionally, the relationship between apartheid, race, and SUDs will be

presented. Although epidemiological data on substance use are discussed in greater detail in Chapter 2, the current chapter gives some background on and an introductory picture of the substance use situation in South Africa in relation to the rest of the world.

1.2.1 Epidemiological Data on Substance Use in South Africa

South Africa has one of the highest prevalences of SUDs, with alcohol being the most commonly used substance, followed by cannabis (Charlson et al., 2014). The three major global risk factors for disability and premature loss of life are alcohol, tobacco, and illicit drug use (Lim et al., 2012). In 2012, the WHO reported a 15% rise in the South African population using substances (Ettang, 2017). South Africa remains a significant player, producer, consumer, and transit country for drugs, ranking as the 3rd largest producer of cannabis in the world (Minnaar, 2015; Peltzer et al., 2010). While South Africa has a lower prevalence for illicit drug use than the USA and Australia, the country lacks robust prevention and treatment intervention strategies that are needed to close treatment gaps (Peltzer et al., 2010).

1.2.2 Substance Use Among South Africa's Young People

SUDs are widespread among young people in South Africa, yet treatment utilisation remains low, resulting in a wide treatment gap (Carney et al., 2020). There are several attitudinal/individual, and environmental factors that predispose individuals to substance use, as well as factors that hamper health services utilisation (Sloboda et al., 2012). Dhawan and Mandal (2017) point out that the early onset of substance use in South Africa is one of the significant drivers in the development of SUDs among young people. In fact, evidence shows that 35.3%, 11.4%, and 23.6% of students would have already tried alcohol, cigarettes, and other illicit substances respectively by the end of their 12th grade at school. The Western Cape province has the highest prevalence rates of high-school/adolescent users of drugs (Morojele et al., 2013; Reddy et al., 2013). Alcohol, cannabis, and methamphetamine are the

most commonly used substances by young people in this area (Harker et al., 2020; Reddy et al., 2013). Mohasoa and Mokoena (2017) observe that substances are easily available in South African schools (particularly public schools). Nevertheless, the government has not done enough to stamp out the production and sale of illicit substances such as *nyaope* (heroin) which many people buy cheap on the streets (Harker et al., 2020).

1.2.3 Substance Use in the Community

The use of substances is prevalent in most South African communities, and evidence shows that it is on an upward trajectory (Carney et al., 2020). With worsening unemployment challenges, young adults often find themselves in stressful situations of having to cope with morale loss and social degradation emanating from a frustrating endless pursuit of jobs (Van Zyl, 2013) that have proven elusive over the years. Moreover, pandemics such as COVID-19 have disrupted and frustrated the daily life routines of many people. Before outlining the major current adverse socio-economic problems and substance use in Chapter 2, a brief snapshot of the connection between apartheid and substance use is presented.

The social problems and stressors that can lead to harmful substance use can be partly attributed to the historical legacy of apartheid which contributed to some socio-economic imbalances, inequalities, and differential access to resources, mainly between white and black communities (Hocoy, 2020). The economic disparities along the racial divide created by unequal access to education, employment opportunities, and other social and economic amenities resulted in many black people being impoverished and exposed to poor standards of living (Ettang, 2017). It can be argued that these social problems are related to people's using substances in an attempt to seek 'refuge' and an escape route from the harsh realities of life. According to Sommer et al. (2017), stressors can contribute to substance use. This view resonates with that of Carney et al. (2013) who have observed that substance use problems show a significant association with lower socio-economic status, low school education, and

youthfulness. It has been argued that since the government has to date done very little to address these historical imbalances, social problems will persist, and some of these can manifest in the form of heightened substance use (Sibanda & Batisai, 2021; Sommer et al., 2017).

1.2.4 Consequences of Harmful Substance Use

South Africa's National Drug Master Plan 2019-2024, publicly released on 24 June 2020, identifies substance use as a fuel or catalyst for crime, reduced productivity, unemployment, familial problems, the escalation of chronic diseases, such as HIV, and other associated problems (Scheibe et al., 2020). In 2015, low- and middle-income had the highest rate of mortality attributable to substance use (Peacock et al., 2018). Platt et al. (2016) indicate that 5.7% to 7% of new HIV infections globally occur among people who inject drugs (PWID). With the increasing use of the drug injection method, there are growing concerns about drug overdoses, accelerated transmission of HIV infections, and an increase in other blood-borne diseases such as the hepatitis C virus (HCV) (Havens et al., 2013; Moody et al., 2017; Versfeld et al., 2020). These consequences of drug injection have been evident in countries such as South Africa (Havens et al., 2013; Versfeld et al., 2020). In a survey involving PWID patients who accessed health services in South Africa, a high prevalence of HCV (84%) was found in Pretoria, Tshwane (the setting of this study), and a prevalence of 44% was found in Cape Town (Versfeld et al., 2020).

Global statistics show that a third of new HCV infections occurs among PWID (Hutin et al., 2018). Research indicates the need to accelerate efforts to investigate injection drug use as a vehicle for HCV transmission, and to implement appropriate actions to address the problem (Liang & Ward, 2018). A major concern is that very few PWID with HCV seem to present themselves for treatment in the South African health system, despite South Africa being one of the most affected countries in the sub-Saharan region and having many people

who live with chronic HCV (WHO, 2017; Versfeld et al., 2020). The rising rate of injection drug use in South Africa has necessitated harm-reduction interventions, such as psychoeducation, and the introduction of the needle and syringe exchange programme (NSP).

1.2.5 Treatment Gap in Respect of People Using Substances

Despite the high prevalence of SUDs among South Africa's young adults, few interventions are available to ameliorate the problem (Carney et al., 2020). This high prevalence and its negative impact on the economy, necessitate further research into the aetiology of SUDs in order to institute effective measures to mitigate this public health crisis (Onya et al., 2012). Research on SUDs among South Africa's young people has often taken a fragmented approach and, in the process, has overlooked the interrelatedness of the phenomenon within a broad sociological structure (Van Zyl, 2013). Aside from that, there is a significant body of literature in South Africa on the multiple barriers that are believed to be the cause of the existing substance use treatment gap (Dada et al 2018; Myers et al., 2020; Sorsdahl et al., 2012). These studies on treatment barriers have been presented from the perspectives of patients, service providers and/or health practitioners, as well as of the general population (Dada et al., 2018; Sorsdahl et al., 2012; Myers et al., 2022).

According to research, treatment barriers are related to human resource constraints, limited infrastructure and service provision, information, people's participation, perception of services, help-seeking behaviour, and overall governance-related issues such as accessibility of substance use treatment at primary healthcare level (De Savigny & Adam, 2009). In the present study, the treatment gap is discussed in the context of statistics that show a high prevalence of SUDs and of findings that provide evidence of poor access to and low utilisation of services due to the existence of treatment barriers. A discussion of the statistics that reflect a high prevalence of substance use among South Africa's youth and of the various

barriers that impede treatment and result in the existing wide treatment gap, is presented in Chapter 2.

Before turning to the discussion of the approach followed in the present research as informed by the background sketched in the preceding sections, the terminology used in the study is explained.

1.3 Notes on Terminology Used

The following key terms used in this study are explained: substance use disorder (SUD), substance use, treatment, help-seeking, alcohol, young adults/people, and barriers to treatment.

Substance use disorder (SUD) – The publication of the 5th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5) marked a shift from the traditional approach to the diagnosis of substance use (based on category) to a dimensional approach (based on severity gradient) (American Psychiatric Association, 2013). The most notable change is the transition from the multiaxial diagnostic system set out in the DSM-4 to the dimensional perspective set out in the DSM-5. This eliminated the conceptualisation in the DSM-4 of substance use as two distinct categories (i.e. abuse and dependence) and integrated the two in the DSM-5 into a single umbrella term called substance use disorder (SUD). The DSM-5 puts forward 11 diagnostic criteria for classifying SUDs into dimensions of mildness, moderateness, and severity. The classification depends on the number of symptoms/items detected as presented by the particular patient undergoing the diagnostic procedure (Malone & Hoffmann, 2016).

Substance use – This term refers to the use of illegal drugs, or of prescription or over-the-counter drugs, or of alcohol for purposes other than those for which they are meant to be used, or in excessive amounts (S. M. Smith et al., 2013).

Treatment – Treatment is defined as all medical and non-medical procedures undertaken to eliminate or reduce the impact of a disease or disorder on an individual. It can be used to refer to any aspect of the treatment process such as registration, initiation, maintenance or completion.

Help seeking – In this study, help-seeking is applied to refer to any action of purposefully looking for help from healthcare services or from trusted people in the community. This action incorporates aspects such as 'understanding, guidance, treatment, and general support when feeling in trouble or encountering stressful circumstances' (Umubyeyi et al., 2016, p. 21).

Young adults/people – Young adults are defined as young people who fall in the age range of 18 to 29 years and are reaching the life stage of adulthood (Arnett et al., 2014).

Barriers to treatment – Barriers to treatment refer to the impediments or obstacles to help-seeking and treatment that are encountered by people living with substance use disorders (Stanojlović & Davidson, 2021).

1.4 Problem Statement of the Research

The situation in South Africa regarding the substance use of its young adult population is precarious (Ajaero et al., 2018). These authors state that the country has a largely youthful population comprising over one third of the country's estimated total population of 57 million people. The youth is an at-risk population group when one factors in the experimentation of drug use they engage in relative to their development age, the high rates of unemployment, and the poverty prevalent within this age group (Kazdin, 2017). Many negative outcomes have been associated with substance use among young adults, with accidental deaths being one of the major issues (Ramsoomar & Morojele, 2012).

To further exacerbate this situation, the available literature on SUDs and barriers to treatment generally remains inadequate, with a few studies done in South Africa mostly

focusing on the Western Cape province (Isobell et al., 2015). Although it is encouraging to note that there is enhanced global and local focus on youth health, accelerated efforts are still needed in order to reduce the substance use pandemic (Gil-Rivas et al., 2019). Examples of initiatives that have been implemented in South Africa to make youth health the cornerstone of sustainable development are its Sustainable Development Goals and National Drug Master Plan 2019-2024 (Scheibe et al., 2020). Such initiatives, complemented by the implementation of rigorous research, can contribute towards building a body of knowledge that can inform policy and practice.

1.5 Purpose of the Study, and the Research Questions

The overarching purpose and the intended outcome of the study were to contribute to the existing knowledge and understanding of substance use by young adults living with SUDs and of the barriers to treatment-seeking they experienced. Such knowledge and understanding could be used to support intervention strategies aimed at reducing the prevalence of drug-related risks and harms among young adults and the communities they live in by by encouraging them to become more willing to seek help and treatment.

The study's research questions centred on the identification, measurement, and understanding of treatment barriers. In answering these research questions, it was hoped that information would be obtained about possible measures that could catalyse help-seeking and treatment processes. The following research questions were formulated:

- What are the experiences of young adults (relating to beliefs, attitudes, feelings and encounters) that are relevant to the understanding of barriers to treatment among young adults living with SUDs?

- What are the prominent barriers to treatment-seeking identified by young adults living with SUDs?

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- Do biographical characteristics such as gender and race have a significant influence on how individuals perceive different barriers?

- What contextually relevant strategies or interventions are needed to address the barriers to treatment-seeking to motivate young adults living with SUDs to seek treatment?

1.6 Research Paradigm and Theoretical Frameworks

Critical realism's (CR) utility in searching for patterns from various levels (multiple realities) that influence behaviour made it a suitable choice as a research paradigm for this study (Adamides et al., 2012). Bronfenbrenner's socio-ecological model (SEM) (1979, 1989) and Andersen's behavioural model (ABM) (Andersen, 1995) were respectively applied as the conceptual and theoretical frameworks of this research (see Rosa & Tudge, 2013).

Morgan (2007, p. 50) defines a research paradigm as 'a way to summarise researchers' beliefs about their efforts to create knowledge'. The choice of CR as a paradigm for this study is premised on the explanatory power of CR in understanding how different entities are related as parts of a greater whole. Tesfaye et al. (2018) point out that the ABM is used as a predictor of healthcare services utilisation. The paradigmatic foundation (i.e. CR) of this study and the two models are further discussed in Chapter 3. This paradigm also suits mixed methods research (MMR) which seeks not to use one approach alone to gain a more comprehensive understanding of the complex phenomenon under study (Creswell et al., 2011; Shannon-Baker, 2016).

This research used Bronfenbrenner's SEM (1979, 1989) (Lee, 2011), and the ABM (Andersen, 1995) as its theoretical standpoints as both seek to apply the knowledge of human behaviour in the context of help-seeking and treatment utilisation. The SEM of Bronfenbrenner was used as the broad theoretical framework of the study, and the ABM was used as a framework to describe multiple factors that influenced healthcare utilisation. The

aptness and propriety of these models in the context of the conceptual analysis done in this study are evaluated in Chapter 6. Both frameworks attested to the relevance of individual and environmental factors in the understanding of barriers to treatment utilisation. According to Ngwenya et al. (2020), the SEM acknowledges personal and environmental influences on health service utilisation behaviour, and these are shaped at five hierarchical levels that include individual (microsystem), interpersonal (mesosystem), community (exosystem), and organisational and public policy (macrosystem) levels.

1.7 Research Design, Methodology and Process

This study utilised a mixed methods research approach. Migiro and Magangi (2011) describe MMR as a methodology for conducting research that involves the collection, analysis, and integration of qualitative and quantitative research data in a single study. In the present study, a mixed methods approach was used to explore, measure, and explain various treatment barriers that precluded help-seeking and treatment among young adults living with SUDs.

The research process entailed the following step-by-step methods set out below as part of the study's data collection and analysis.

Phase 1 (Qualitative Phase). Focus group discussions (FGDs) were conducted to explore the experiences of people using substances and to obtain information on the barriers to help-seeking and treatment that they encountered. The FGDs were used as background to adapt the study's questionnaire to be contextually sensitive. Purposively sampled peer educators participated in the FGDs as key informants as they could assist in providing information on the barriers to help-seeking and treatment. These peer educators, who were recruited at COSUP sites, formerly used substances, and a few of them were still completing their treatment/recovery. At the time of the study, they were employed (and remunerated) by COSUP, and their main role was to work as gatekeepers to identify and refer people using

substances for help and treatment at COSUP. Research has shown that peer-led education and behavioural interventions can be effectively implemented in different target populations to address health issues in LMICs (Medley et al., 2009). As pointed out, the peer educators were key informants, and in that role, they assisted with data collection.

Phase 2 (Quantitative Phase). A questionnaire was used to identify and measure the barriers that impeded treatment among young adults living with SUDs. In order to attain this, one of the main objectives of the quantitative phase, as part of the larger study, was to achieve scale validation through the use of EFA. This analysis allowed for the selection and interpretation of subscales based on the preferred factor solution, and for the calculation of internal consistency per subscale using Cronbach's alpha (Dima, 2018). Additionally, to investigate the influence of demographic variables on young adults' perceptions of barriers to help-seeking and treatment, young adults aged between 18 and 29 years receiving treatment at COSUP were recruited as respondents to complete a self-report questionnaire. Potential respondents were selected through random sampling.

Phase 3 Qualitative Phase: Semi-structured Interviews. To obtain an insight into and an in-depth understanding of barriers to treatment among young adults living with SUDs so as to develop evidence-informed intervention strategies, SSIs were conducted. The semi-structured interviews added an explanatory dimension to the identified barriers by giving the young adults the opportunity to expand their views. For SSIs participants were purposively sampled (homogenous sampling) from the larger survey sample. According to Creswell (2015), participants in MMR with a convergent design should ideally be drawn from the same population. As shall be discussed in Chapter 4 of the present study, a homogenous sample in purposive sampling ensures the retention of information-rich participants who can and are willing to provide information on the topic of interest (Etikan et al., 2016). This is a

non-random sampling technique that was aided by the referral of clients to the researcher by coordinator of the participating peer educators.

Data analysis. The data analysis focused on both the qualitative and quantitative data collected sequentially. The analysis of the qualitative data was performed using thematic analysis, whereas the statistical package for social sciences (SPSS) software was used to analyse the quantitative data. In order to interpret the findings, the qualitative and quantitative data were triangulated using the convergence model.

1.8 Significance of the Study

The present research was intended to contribute to the development and implementation of contextually relevant intervention strategies. It sought to unravel the complexities relating to factors that deterred individuals using substances from seeking help, and to develop strategies that could enhance help-seeking behaviour. By blending inquiry with practice, the intervention strategies discussed might address barriers to treatment-seeking among young adults living with SUDs in order to decrease the treatment gap.

The aforementioned praxeological approach (Jonas, 2016) can be achieved by establishing an empirical base to guide engagement, assessment, and treatment effort by using research-informed practical clinical guidelines such as those of the Substance Abuse and Mental Health Services Administration (SAMHSA) or of the Canadian Centre on Substance Abuse used in the USA and Canada respectively (McKee, 2017; Substance Abuse and Mental Health Services Administration, 2013). This will help the government to promote healthier and more productive livelihoods and lessen the government's financial burden in providing free amenities and grants to people who could otherwise be economically productive (Chen & Stuart, 2021). If a sizeable proportion of the country's population that relies on government's social grants becomes economically active, this may free up funds that can be channelled towards other more productive sectors of the economy such as

education, training, and investment drives for job creation and economic growth (Chen & Stuart, 2021).

Findings from this study may be adopted regionally, nationally, continentally, or even globally to curb the prevalence of SUDs. It is hoped that this will in turn help to reduce the global burden of diseases emanating from substance use.

1.9 Overview of the Study

The overview highlights and summarises the presentation thrust of the different chapters in this study.

In Chapter 1, an overview of the orientation, motivation, aims, objectives, and significance of the study is presented. Chapter 2 presents a synthesis of the relevant literature relating to barriers to treatment among people using substances at local and global levels. The study's paradigmatic point of departure and theoretical frameworks are presented in Chapter 3. Chapter 4 presents the methodology used in the research study in terms of its research design, selection of participants, data collection, procedures, and data analysis. Chapter 5 presents the study's findings and the analysis of these findings. In Chapter 6, the integration of the two sets of data (quantitative and qualitative) is presented. Further, the chapter contains the conclusions, limitations and recommendations for future research.

Chapter 2: Literature Review

2.1 Introduction

This chapter reviews the literature on substance use treatment barriers at a global and a local level (i.e. in South Africa), linking this to the overarching research question of this study. The chapter highlights the diagnoses of SUDs, substance use epidemiological data, challenges in combating the use of substances, implications of substance use, treatment interventions for substance use, an overview of substance use treatment services in South Africa, and barriers to treatment.

The focus of this literature review is on epidemiological data and measurements relating to substance use, and on the treatment barriers that people experience and that prevent them from seeking help or treatment. Attention is given to the commonly used substances such as alcohol, cannabis, heroin, cocaine, and amphetamine (Lachenmeier & Rehm, 2015), and to how different barriers impede help-seeking and treatment. The literature shows that substance use has gradually grown to epidemic proportions in most parts of the world, including South Africa (Herzberg et al., 2016; Peltzer & Phaswana-Mafuya, 2018). Overall, the chapter examines existing knowledge on treatment barriers, giving an insight into what the present study identified as knowledge gaps and how the study could fill these gaps.

The low utilisation of substance use treatment services has been attributed to treatment barriers (Luitel et al., 2017). Peltzer and Phaswana-Mafuya (2018) elucidate that in spite of an ever-increasing trend in substance use globally, particularly among young adults, there has not been a corresponding increase in the number of people entering treatment. Operating from a background of an emphasis on universal primary healthcare in post-apartheid South Africa, the South African government put in place processes such as the 1997 White Paper on the Transformation of the Health System in an attempt to decentralise mental health services. This has not significantly increased the availability and accessibility of

mental health services such as substance use treatment (Gray et al., 2017; Petersen et al., 2009).

Ali and Agyapong (2015) view treatment barriers as all forms of attitudinal (non-systemic) and structural (systemic) obstacles that can prevent treatment access or utilisation. Attitudinal barriers are pervasive negative perceptions and value systems that may be found in communities or in certain individuals (Preedy, 2010). Structural barriers refer to societal factors (social, political, economic, and legal) that impede healthcare utilisation by certain groups of people (Otiashvili et al., 2013).

Before identifying and describing the attitudinal and structural barriers to the treatment of SUDs, it is essential to discuss the measurement and diagnosis of SUDs.

2.2 Diagnosis of SUDs

The DSM-4 dichotomised substance dependence and substance abuse, but the DSM-5 eliminates this distinction by creating a combined criterion list that qualifies diagnosis premised on specifiers of severity and substance type.

2.2.1 Diagnosing SUDs Using the DSM-5

As indicated in Table 1, the DSM-5 makes severity classifications for SUDs based on individuals' presentation of a certain number of the following 11 criteria set for SUDs within a 12-month period (American Psychiatric Association, 2013). These criteria are:

1. Using the substance in larger amounts or over a longer period than was originally intended

2. Unsuccessful efforts to cut down or regulate the use of substances

3. A significant period spent trying to obtain, use or recover from the effects of the substance

4. Craving or having a strong urge to use the substance

5. Recurrent substance use resulting in a failure to fulfil major role obligations at work, school or home

6. Continued use of the substance despite having recurrent social or interpersonal problems caused or exacerbated by the effects of the substance

7. Decreased or increased social, occupational or recreational activities due to substance use

8. Substance use in hazardous or dangerous situations

9. Persistent use despite physical or psychological problems

10. Tolerance, the need for increased amounts of substance to achieve the desired effect or diminished effect if using the same amount

11. Withdrawal, or the development of a substance-specific syndrome due to the cessation of use that can be serious and prolonged

Table 1

Severity Scales of SUDs as Determined by the Number of Presenting Symptoms

Scale	Severity
Two to three presenting symptoms	Mild disorder
Four to five presenting symptoms	Moderate disorder
Six or more presenting symptoms	Severe disorder

There are also further diagnostic specifiers which include intoxication, withdrawal, substance-/medication-induced disorders, and unspecified substance-induced disorders (American Psychiatric Association, 2013). Notably, the craving or strong desire to use a

substance was added to the DSM-5 criterion, and the criterion of recurrent legal problems which was in the DSM-4 does not feature in the DSM-5.

The DSM-5 recognises substance-related disorders that result from using 10 different classes of drugs, namely: alcohol; caffeine; cannabis; hallucinogens (phencyclidine or similarly acting aryl cyclohexylamines, and other hallucinogens such as LSD); inhalants; opioids; sedatives, hypnotics, or anxiolytics; stimulants (including amphetamine type); tobacco; and other or unknown substances (American Psychiatric Association, 2013).

2.2.2 Diagnosing SUDs Using the Alcohol, Smoking and Substance Involvement Screening Test

The Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) V3.0 was developed for the WHO. This test consists of a brief structured questionnaire used for the early identification of substance use-related risks, and for the screening and assessment of SUDs (Heslop et al., 2013). Corresponding to the 'mild', 'moderate', and 'severe' categories in the classification of the severity of disorders under the DSM-5, the WHO-ASSIST V3.0 provides scores that are grouped as 'low-risk', 'moderate-risk', and 'high-risk' scores. Also, as in the case of the DSM-5's focus on different substances, the WHO-ASSIST V3.0 covers a wide range of substances, namely: tobacco, alcohol, cannabis, cocaine, stimulants, inhalants, sedatives, hallucinogens, and opioids. The WHO-ASSIST V3.0, which is used in COSUP by medical doctors, clinical associates, and social workers, is also used in a wide range of healthcare settings, especially primary care (Heslop et al., 2013).

The WHO-ASSIST V3.0 is made up of eight items (Onifade et al., 2014):

- Item 1 draws information about lifetime use of substances.
- Item 2 elicits information about frequency of use during the prior three months.
- Items 3 to 5 and 7 elicit information in line with the diagnostic criteria of substance dependence as set out in the WHO's *International Classification of Diseases* (ICD-

10) and the DSM-4. These include the strong desire or urge to use; use leading to health, social, legal or financial problems; failure to do what would normally be expected because of use of substance; and loss of control over substance use.

- Item 6 relates to a friend's or relative's expression of concern about the individual's use of substances.

- Item 8 draws information about non-medical use of drugs by injection.

The WHO-ASSIST V3.0 is a freely accessible questionnaire which can be administered online or via pen and paper, is brief and takes only about five to 10 minutes to complete. As this test has shown satisfactory construct validity and acceptable psychometric properties (Newcombe et al., 2016; Onifade et al., 2014), COSUP was motivated to use it. Another reason for COSUP's use of the WHO-ASSIST V3.0 is its adaptability in screening and assessing risk for a wide range of substances (Kumar et al., 2021). The testing and retesting of the tool have demonstrated the reliability of the items and also the feasibility of using the tool in primary care settings. However, multi-site studies across several different cultures are still ongoing to ascertain the test-retest reliability of the WHO-ASSIST V3.0 (McNeely et al., 2014).

There are several other ways to measure substance use, but they are relatively expensive (Dolan et al., 2004). These methods include using urine, sweat, and hair samples (Dolan et al., 2004). Validated questionnaires such as AUDIT and DUDIT are also used to measure substance use (Kader et al., 2012).

COSUP's use of the WHO-ASSIST V3.0 aids its assessment and screening for substance use-related risks and disorders. There are several elements in the DSM-4, the DSM-5, and the ICD that overlap (Chung et al., 2015), and all these elements can be found in the WHO-ASSIST V3.0. ICD (Chung et al., 2015) which can be found in the WHO-ASSIST

V3.0. To provide an indication of the epidemiological patterns of SUDs, the statistics and distribution of SUDs in South Africa are presented.

2.3 Epidemiological Data in Respect of South Africa

Before discussing the South African situation, this section presents a snapshot of SUD distribution in different parts of the world (see Figure 2).

Figure 2

Global Distribution of SUDs

Share of the population with alcohol or drug use disorders, 2016
Alcohol or drug use dependence is defined by the International Classification of Diseases as the presence of three or more indicators of dependence for at least a month within the previous year.

Our World in Data

No data 0%   1%   2%   3%   4%   5%   6%   7%
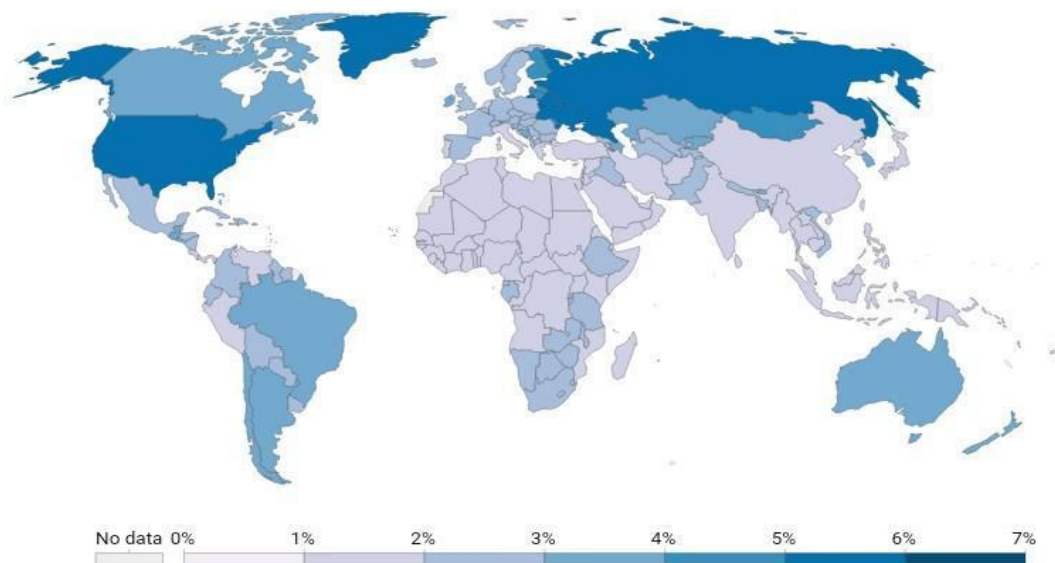
Source: IHME, Global Burden of Disease (GBD)
Note: Tobacco smoking is not included. Due to the widespread under-diagnosis, these estimates use a combination of sources, including medical and national records, epidemiological data, survey data, and meta-regression models.
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As depicted in Figure 2, the prevalence of SUDs in Southern Africa is about 3% to 4% lower than in some parts of the northern hemisphere, but it is significantly higher than in the rest of the African continent.

National substance use and treatment watchdogs, such as the South African Community Epidemiology Network on Drug Use (SACENDU), have put considerable efforts

into providing statistics on substance use and treatment in South Africa. However, there is a glaring gap in information regarding the size of the population living with SUDs (Peltzer & Phaswana-Mafuya, 2018). Most of the information that reflects the extent of the substance use problem in South Africa comes through in the form of the number of people presenting themselves for treatment of substance use-related disorders. This information does not reveal the size of the untreated population. There is a need to quantify the number of people living with substance use problems so that the exact nature of the treatment gap can be established. Most of the national population-based surveys in South Africa are rather outdated (e.g. the 2008 and 2012 national population-based surveys done among adolescents and adults) and do not give an adequate indication of the prevalence of the problem (Peltzer & Phaswana-Mafuya, 2018). Therefore, there is a critical need for more usable research, which the present research attempted to address.

In South Africa, SACENDU remains an important drug watchdog that monitors and provides essential statistics on drug use patterns and treatment uptake across South Africa (B. Cummings et al., 2021; Dada et al., 2018). SACENDU provides regular surveys and biannual reports that enable researchers and policymakers alike to keep track of the most important changes in substance use metrics at regular intervals. According to B. Cummings et al. (2021), SACENDU's phase 49 biannual reports covering the periods from January 2020 to June 2020 and from July 2020 to December 2020, reveal that the number of people admitted to specialist treatment centres steeply increased by about 32.8%. The increase was from 6 317 people in the period from January to June 2020 to 9 394 people in the period from July to December 2020. One can hypothesise that a possible explanation was the relaxation of the COVID-19 movement restrictions, which allowed greater movement for the general public, including access to treatment. The next sections provide a snapshot on substance use and treatment admissions on both periods.

SACENDU presents some provinces clustered as a region. The focus in the present study was on Gauteng where the present research was conducted as well as on the Western Cape as the province with the highest substance use. In line with the research questions of this study, the main variables that will be considered are gender, race, age, and commonly used substances.

The epidemiological data on drug use in South Africa's provinces/regions were obtained from SACENDU's reports (B. Cummings et al., 2021). Table 2 presents data on patients admitted during the period from January 2020 to June 2020 according to the three primary substances of use they reported at admission, their ethnicity/race, their age, and their gender. Notably, the highest percentage of young adults (42%) admitted for substance use treatment was in Gauteng, justifying the choice of Tshwane as the setting of this study.

Table 2

Epidemiological Data on Patients Reporting for Drug Use Treatment in South Africa's Provinces/Regions From January to June 2020

Province	Patients' Three Primary Substances of Use (%)	Race/Ethnicity of Patients	Percentage of Patients Aged 20–29	Gender of Patients (M = Male; F = Female)
Gauteng	Cannabis (34%)	Black African 73%	42%	87% M; 13% F
	Heroin (32%)			85% M; 15% F
	Alcohol (11%)			83% M; 17% F
Western Cape	Methamphetamine (44%)	Coloured 73%	25%	71% M; 29% F
	Heroin (18%)			65% M; 35% F
	Cannabis (15%)			71% M; 29% F
Northern Region (Mpumalanga and Limpopo)	Cannabis (31%)	Black African 95%	39%	89% M; 11% F
	Alcohol (15%),			94% M; 6% F
	Methamphetamine (9%)			86% M; 14% F
Eastern Cape	Cannabis (30%)	Black African 64%	35%	86% M; 14% F
	Alcohol (21%)			76% M; 24% F
	Heroin (18%)			87% M; 13% F

Province	Patients' Three Primary Substances of Use (%)	Race/Ethnicity of Patients	Percentage of Patients Aged 20–29	Gender of Patients (M = Male; F = Female)
KwaZulu-Natal	Cannabis (35%)	Black African 70%	30%	85% M; 15% F
	Alcohol (14%)			83% M; 17% F
	Methamphetamine (9%)			87% M; 13% F
Central Region	Cannabis (52%)	Black African 84%	31%	85% M; 15% F
	Alcohol (19%)			94% M; 0% F
	Heroin (11%)			78% M; 22% F

As indicated in Table 2, there is a significantly higher percentage of males presenting themselves for treatment across regions. Possible explanations could be that there is a higher prevalence of SUDs among males than females, or that there are certain barriers that prevent females from seeking treatment. One of the objectives of this study would be to examine if gender influenced perceptions of treatment barriers.

Table 2 (see the column Percentage of Patients Aged 20–29 years) shows that adolescents and young adults are part of the age group in respect of which the highest numbers of patients reporting for substance use treatment have been recorded. This may imply that young people are one of the age groups most affected by SUDs.

Referring to other data in the SACENDU reports, South Africa ranks as one of the countries in sub–Saharan Africa with the highest heavy and/or binge episodic drinking, and such drinking is more profound among the youth (WHO, 2019).

2.4 Challenges in Combating the Use of Substances

There are several factors that hamper efforts to reduce substance use and its related problems. These may include the factors mentioned below.

2.4.1 Availability of Substances

In order to generate more income, drug syndicates in the illicit drug industry have become more creative and 'aggressive' in enticing people to become involved in or to maintain drug use (Tam & Foo, 2012). For instance, the Bureau of Justice Statistics in the

USA's Department of Justice reported in 2007 that 22% of students in grades 9 to 12 admitted that they had been offered, sold, or given illegal drugs on school premises in the country (Tam & Foo, 2012). The availability of and easy access to substances afford the youths the opportunity to try them out, and this is a major risk factor to both substance use and dependence.

Through advanced technologies such as the internet, the easy access to substances has been enhanced (Dennehy et al., 2005; Forman et al., 2006). The Internet has enabled easy and quick online transactions of drugs with even the convenience of having them door-step delivered (Forman et al., 2006). The Internet route is also favoured by drug buyers and sellers who prefer anonymity (Forman et al., 2006).

In addition to the easy access to drugs, the mass production, including illegal production, and the ever-increasing supply of drugs have made some of the drugs such as cannabis fairly affordable (Mokwena & Huma, 2014). As alluded to in Chapter 1, South Africa is one of the largest producers of cannabis, and hence it is the most widely used illicit substance locally because many can afford it (Ramlagan et al., 2010). Methamphetamine is relatively cheaper than cocaine and heroin, hence the high prevalence of their use in South Africa, especially in the Western Cape province.

2.4.2 Lax Law Enforcement

A lack of strict enforcement of drug laws can be a contributory factor in the high prevalence of drug use. Other factors are the absence of strict drug laws and policy formulated by the government, and the poor training of personnel in drug laws (Akiny, 2013). The lack of strictness in applying drug laws is more prevalent in developing countries (Erhun et al., 2001; Peltzer et al., 2010).

Many countries around the world lack a holistic approach to the drug use problem (Akiny, 2013). Drug law enforcement in South Africa is primarily focused on large-scale

distributors and trafficking syndicates; local police seldom direct their focus on retail-level distributors (Peltzer et al., 2010). According to research, the police are not committed to curbing small-time drug exchanges involving sellers and buyers of illicit substances in public places, allowing significant quantities of illicit drugs to trickle into the substance use populace (Peltzer et al., 2010; Windle, 2017). Poor policing practices have been exposed in relation to harm-reduction initiatives (Windle, 2017). Further, law enforcement staff in South Africa seem to be inadequately trained in harm-reduction initiatives and to display worrying levels of improper conduct such as arresting people receiving syringes for NSP, or even confiscating medication such as methadone from clients (Hugo et al., 2020; Scheibe et al., 2017).

2.4.3 Socio-economic Factors

Studies have shown that socio-economic status can have a bearing on substance use behaviour, especially among young people (Hanson & Chen, 2007; Maynard et al., 2017; Wu, 2010). Low socio-economic status, in particular, has been found to be a risk factor for mental health problems and substance misuse (Hanson & Chen, 2007; Maynard et al., 2017). As regards the different types of socio-economic status markers, family financial resources have been found to be a stronger predictor of substance use than family status. In South Africa, lower-income households have been found to be particularly at risk of using drugs (Peltzer et al., 2010). Risky heavy episodic drinking of alcohol and the use of illicit substances are often associated with people who are unemployed. Conversely, problematic drinking and misuse of substances decrease the likelihood of people getting or maintaining a job (Henkel, 2011).

2.4.4 Culture and Subcultures

Research related to cultural factors in substance use has gathered momentum over the past decade (Unger, 2012; Yu & McClellan, 2016). This is beneficial as it allows planners

and policymakers to mark some cultural groups as 'low risk' and others as 'high risk', and to allocate resources for prevention and treatment accordingly (Unger, 2012). Cultural norms and values have been shown to determine the use or non-use of substances in a defined community or society (Beebe et al., 2008). By implication, a particular type of SUD is more likely to occur in certain areas or subsets of the population than in others (Unger, 2012).

Culture is not exhaustively defined by language, ethnicity, nationality or race, but branches into various subcultures that are organised around shared beliefs, customs, traditions and values (Oyserman, 2017). University or college students have been known to form drug subcultures (Ashmore et al., 2002). For example, a study in one university in the Western Cape province in South Africa found a significantly high prevalence of substance use among students (Steyl & Phillips, 2011).

The Cape Flats drug subculture is another prominent example of a specific drug subculture characterised by an often deadly and violent gangsterism amidst a strong culture of drug use and competition for control of a lucrative drug trade (Chetty, 2017). Although crime is conventionally viewed as unacceptable, in some pockets of the Cape Flats there is a culture of 'endorsing' the drug criminal economy as a rational response to the urban crisis of poverty and as a vehicle that supplies beneficial outcomes such as income and commodities for the local communities (Standing, 2003). One can argue that, in this context, the norms and values of the communities in question are indeed a catalyst for substance use, supporting the argument for the existence of drug subculturalism mentioned earlier.

Furthermore, the culture of the high prevalence of drug use, particularly of methamphetamine, in the Cape Flats community stems from social problems such as exposure of the youth to anti-social learning in gang and drug subcultures, and a variety of mental health issues, coupled with an impoverished upbringing in dysfunctional families (Chetty, 2017). The social disorganisation theory, which proposes that residents from less

privileged and unstable neighbourhoods may have difficulties developing and maintaining

social order owing to the inherent weaknesses of their social networks (Manzano, 2014), can

be applied to explain the deleterious state of affairs in the Cape Flats.

Some societies may view the use of substances as a normal routine activity. In some

parts of Zimbabwe, for example Binga where the Tonga people live, cannabis use, beer-

drinking festivals, and binge drinking at traditional and ritual ceremonies are normal

activities and a way of life (Matunhu & Matunhu, 2016).

Research has found some degree of association between the conceptualisation of

masculinity and substance use behaviour (Fouten, 2006). The cultural construction of

masculinity is loaded with the conception that more frequent and heavier use of substances

represents maleness and masculinity (Fouten, 2006; Sanders, 2011). It appears that most male

adolescents and young people seem to subscribe to this idea, given the evidence consistently

showing that there is a higher prevalence of substance use among young men than among

young women (B. Cummings et al., 2021). This conception of masculinity is foregrounded in

studies on the prevalence of high substance use (Fouten, 2006; Sanders, 2011). Consequently,

this masculine subculture tends to promote substance use, and the subculture in itself

becomes a risk factor for substance use behaviour and the higher prevalence of SUDs among

men than among women (B. Cummings et al., 2021; Fouten, 2006; Sanders 2011).

On the other hand, some cultures, particularly those that put a high premium on

religion (e.g. Muslim communities), dissuade the use of substances (Arfken & Ahmed, 2016;

Mauseth et al., 2016). Global overviews confirm that the use of substances is generally low in

areas and regions where the majority of the population is Muslim (Arfken & Ahmed, 2016).

However, the UNODC (2015) reports that, although the Muslim culture shuns away from

substance use, such use is noticeably growing in some Muslim regions such as Turkey.

Unfortunately, the conservative nature of the Muslim culture prevents the disclosure of

sensitive issues such as drug use (Mauseth et al., 2016), hence the lack of research in this area to establish the full extent of the issue of substance use.

2.5 Implications of Substance Use

There are several negative consequences associated with substance use, and these include substance use-related road carnage and occupational accidents, health problems and loss of productivity, academic failure, interpersonal violence, relationship failure, and risky sexual behaviour (UNODC, 2018; WHO, 2019. These negative consequences emphasise the necessity of the prevention of substance use and the treatment of people that misuse substances.

2.5.1 Substance Use-Related Road Carnage

According to the WHO (2019), an estimated 1.2 million deaths worldwide are attributed to substance use-related road traffic accidents and an even greater number of non-fatal injuries each year. Many road traffic accidents are related to intoxication with substances, and young males have largely been the victims. For example, Ramsoomar and Morojele (2012, p. 611) report that in South Africa, 80% of the male youth deaths are related to blood alcohol concentration. Despite the strict enforcement of traffic laws, road accidents caused by the use of substances continue to be a challenge.

2.5.2 Health Problems and Loss of Productivity

SUDs increase the risk of developing lifestyle diseases such as type 2 diabetes and liver and heart problems (Lonardo et al., 2013). Productivity losses are attributable to premature mortality, long-term disability, and absenteeism due to substance use-induced incapacitation (Lonardo et al., 2013). Health and social services become strained and the government has to redirect funds from economy-building and job creation sectors such as manufacturing and education (Sorge et al., 2020).

SUDs have heavily impacted on the health and well-being of people using substances, with growing fatalities being recorded. Figure 3 presents a global picture of deaths from SUDs by age.

Figure 3

Global Deaths from SUDs by Age
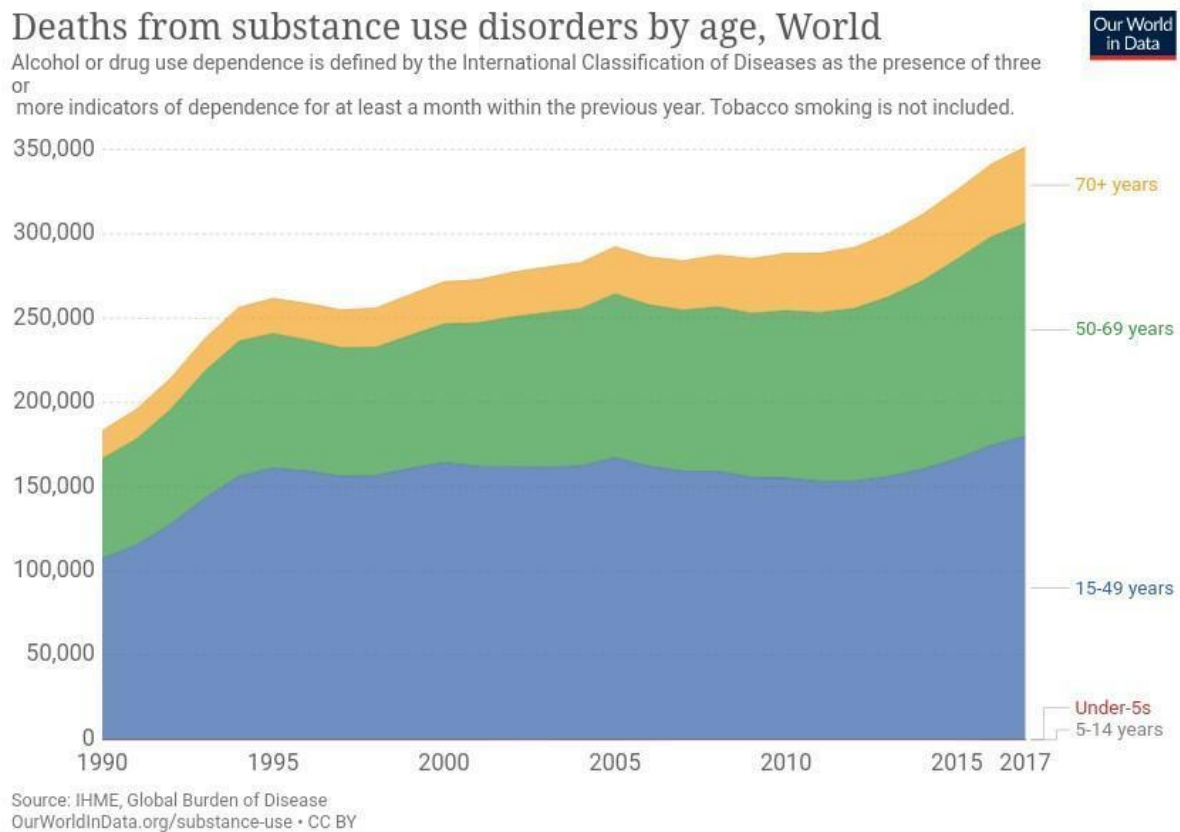
Deaths from substance use disorders by age, World

Alcohol or drug use dependence is defined by the International Classification of Diseases as the presence of three or more indicators of dependence for at least a month within the previous year. Tobacco smoking is not included.

Our World in Data

| 70+ years
| 50-69 years
| 15-49 years
| Under-5s
| 5-14 years

Source: IHME, Global Burden of Disease
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Figure 3 shows that people in the age group between 15 and 49 years are significant contributors to the proportion of the global population dying from SUDs. It also shows that the number of people dying from SUDs has been steadily rising over the years.

2.5.3 Academic Failure

Substance use among young adults is known to contribute to a cascade of academic problems starting with absconding classes, diminished concentration on school work, and the

eventual poor grades or dropping out of students (Arria et al., 2013). Academic institutions in South Africa face challenges of low rates of academic achievement and high rates of attrition (Bantjes et al., 2021). As mentioned in Chapter 1, the early initiation of young people into drug use (as early as in secondary school) is a risk factor for developing SUDs and attaining poor grades in school. Drugs easily find their way into public schools, and substance use by students characterises most tertiary learning institutions, posing a risk to academic performance (Bantjes et al., 2021).

2.5.4 Interpersonal Violence

Interpersonal violence is considered a pervasive public health and human rights challenge that is responsible for many deaths, particularly among young people (Rosenberg et al., 2006). According to Reed et al. (2009), one of the risk factors for interpersonal violence is substance use.

South Africa has one of the highest rates of interpersonal violence in the world, and such violence is characterised by family violence, gender-based violence, intimate partner violence, and violence between unrelated members of the community (Hobkirk et al., 2015). Substance use and interpersonal violence seem to share a cyclical relationship: substance use is a risk factor for interpersonal violence, and victims of interpersonal violence may resort to substance use as a coping mechanism (Hobkirk et al., 2015, Messman-Moore et al., 2015). The rise in the use of substances presents a major challenge in curbing interpersonal violence in communities.

2.5.5 Relationship Failure

Substance use is perceived to be a risk factor for problems in interpersonal and family relationships (Sarkingobir & Dikko, 2020). Substance use by young people may produce a 'developmental lag' – ineffective thinking and coping styles that impair the ability of people to form close and productive interpersonal relationships (Fergusson & Boden, 2008; Tucker

et al., 2005). According to this research, cannabis use, for example, has been viewed as causing relationship problems, low levels of relationship satisfaction, and a reduced likelihood of sticking to one spouse or getting married (Fergusson & Boden, 2008; Tucker et al., 2005). Trends of having difficulties in settling down with a partner have also been observed among young adults who are binge drinkers (Fergusson & Boden, 2008; Tucker et al., 2005). This is most likely due to the negative impact that SUDs can have on overall lifestyle factors such as job stability, educational achievement and completion, and physical and psychological health (Bantjes et al., 2021; UNODC, 2018; WHO, 2019.

2.5.6 Risky Sexual Behaviour

Substance use has long been associated with risky sexual behaviours among adolescents and young adults. Such behaviours include having multiple sex partners and using condoms inconsistently, leading to sexually transmitted diseases and unplanned pregnancies (Moyo et al., 2020). There are patterns of association between substance use, such as high methamphetamine use in the Western Cape province, and risky sexual behaviour (C. D. H. Parry et al., 2017; C. D. H. Parry et al., 2011). However, it must be noted that research is not specific enough to enable researchers to establish direct causal relationships between SUDs and sexual behaviours (Ritchwood et al., 2015).

To conclude, it can be argued that substance use is a potential risk factor for physical and psychological health, as well as for the social and economic well-being of individuals and communities at large (Bantjes et al., 2021; Lonardo et al., 2013). However, one needs to be cognisant of the complex cyclical relationship that many of the variables associated with substance use seem to have with substance use. Sometimes the causal relationship is not clear, and further research is needed due to the multitude of factors that affect individuals in their development of SUDs.

2.6 Treatment Intervention Strategies for Substance Use

Two main approaches namely those of abstinence and harm reduction, have been adopted towards the treatment of SUDs (A. J. Finch et al., 2020; Khantzian, 2006). The comparative effectiveness of the two approaches has been a subject of discussion, generating polarised views (Eaton et al., 2018; Khantzian, 2006). The methods that these two approaches use are outlined next.

2.6.1 Abstinence-Centred Approach

In the context of this study, abstinence refers to refraining from the use of substances in order to recover from a SUD. Abstinence is a restraint method applied to avoid indulging in the use of substances, or to recover from the use of addictive substances or behaviours (Baumeister & Vonasch, 2015; Peck & Ranaldi, 2014). This method is usually used in a residential rehabilitation set-up under the supervision of clinicians (Baumeister & Vonasch, 2015; Mattoo et al., 2015). Although no study has been able to single out a particular strategy as overly predictive of long-term abstinence, researchers subscribe to the school of thought that models/strategies with the greatest likelihood of succeeding are those implemented in the patient's natural setting(s), and while the substance is available (Altamirano et al., 2017).

To enhance the long-term sobriety goal of the abstinence paradigm, the strategy should be able to employ both the positive consequences of abstinent-related behaviour and the negative consequences of the continued taking of substances (Peck & Ranaldi, 2014). Some of the commonly applied behavioural-based strategies for abstinence include counterconditioning, drug-paired cue exposure, contingency management, environmental enrichment, and the use of the 12-step group therapy treatment (Gamble & O'Lawrence, 2016; Ginley et al., 2021; Peck & Ranaldi, 2014). This group therapy treatment is explained below.

The 12-step group therapy for substance abuse treatment is a spirituality-based method that aims to significantly improve abstinence rates (Gamble & O'Lawrence, 2016). The programme was initially developed and used by Alcoholics Anonymous to help people overcome addictions and compulsions. The 12-step recovery plan operates from the premise that people can help one another achieve and maintain abstinence from the use of substances, but that healing cannot come about unless people with addictions surrender to a 'Higher Power' (B. L. Greenfield & Tonigan, 2013).

According to Wells et al. (2014) and Shulman et al. (2021), data from large-scale national clinical trials in the USA have revealed that high-exposure patients (i.e. patients who attended at least two of three individual sessions, and three of five group sessions) demonstrated a higher self-reported abstinence from substance use and were more likely not to report substance use problems. For instance, in one clinical trial in the USA, the group that completed one session had a self-reported abstinence rate of 70% from both alcohol and drugs, whereas 80% of the group that completed three sessions reported abstinence, and 90% that completed all six sessions reported abstinence (Wells et al., 2014). Lengthy periods of sobriety have been associated with the role played by religious faith and spirituality in 12-step programmes (Laudet et al., 2006; Ranes et al., 2017). Research points out that religion, reverence, and fear of a higher power (God) help individuals to maintain sobriety when they follow the 12-step substance use recovery programmes (Laudet et al., 2006; Ranes et al., 2017). 'God', in this context, refers to a higher power in any religion such as Christianity, Judaism, Muslim, and many others. However, the role of spirituality in maintaining long-term abstinence has received limited empirical attention in research, one reason being that the essential components of interventions in this area cannot be measured (Laudet et al., 2006; Wells et al., 2014).

In South Africa, the 12-step programme has been applied by substance use treatment organisations, and research that has evaluated the efficacy of these programmes has shown that they can significantly promote sobriety and recovery (Carelse & Green, 2019).

It is important to note that no strategy has yet been distinctly identified as a 'silver bullet' to predict long-term abstinence (Altamirano et al., 2017). Further research is needed to improve the efficacy of interventions to assist users in achieving long-term abstinence. Although abstinence outcomes remain the preferred goal of substance use interventions, the reality is that abstinence outcomes are a high standard to achieve and not always easy to attain (Bhat et al., 2021). Abstinence-only approaches are effective for self-motivated individuals who want to be completely abstinent from drugs. Research shows that the majority of people using drugs will not utilise treatment services if they are expected to stop using drugs completely (Bhat et al., 2021). Another handicap of abstinence-centred approaches relates to their 'coercive nature' which stipulates complete abstinence as a standard rule for most substance use rehabilitation facilities, which also then raises some ethical concerns (Urbanoski & Wild, 2012). An alternative approach to the abstinence-only approach is the harm-reduction paradigm, which is discussed next.

2.6.2 Harm-Reduction Approach

Harm reduction is somewhat of a 'yellow traffic light' in that it does not necessarily require an immediate and complete halt to the use of substances. It is an alternative that may appeal to individuals using substances who are reluctant or unable to stop the use of substances immediately and completely (i.e. to observe the 'red light' of abstinence) (Marlatt & Witkiewitz, 2010). The harm-reduction model has evolved over the years as an alternative to the abstinence-only approach and has also been successfully applied in sexual health education to reduce teen pregnancy, sexually transmitted infections, and HIV (Leslie et al., 2008). Harm-reduction strategies draw a wider substance use population owing to their non-

prohibitionist and non-conditional requirements to enter the programme. The non-use of substances is not a pre-requirement for one to be accepted into a harm-reduction-oriented treatment programme (Leslie et al., 2008).

The goal of harm reduction is to prevent and reduce both the individual and societal harms of substance use (Hedrich & Hartnoll, 2021). This is a public health strategy that was primarily developed with the objective to reduce harms associated with certain behaviours, particularly in respect of adults who had substance use problems but were not able or ready to stop using substances immediately (Hedrich & Hartnoll, 2021; Leslie et al., 2008). There are various harm-reduction strategies and that they are used in a number of facilities. NSP and OST are some of the harm-reduction strategies and they shall be discussed next.

Services provided under the NSP include health information on the importance of using sterile syringes and not exchanging needles in order to prevent the transmission of HCV and HIV (Fernandes et al., 2017). The NSP provides needles and syringes to PWID. Under OST, and there are two general approaches to the medical treatment of opioid dependency: medically supervised detoxification treatment and opioid-substitution treatment (Mauger et al., 2014).

Harm-reduction procedures and services offered under the OST programme are shown in Figure 4, and the major aspects are discussed below the figure.

Figure 4

Main Features of the OST Programme
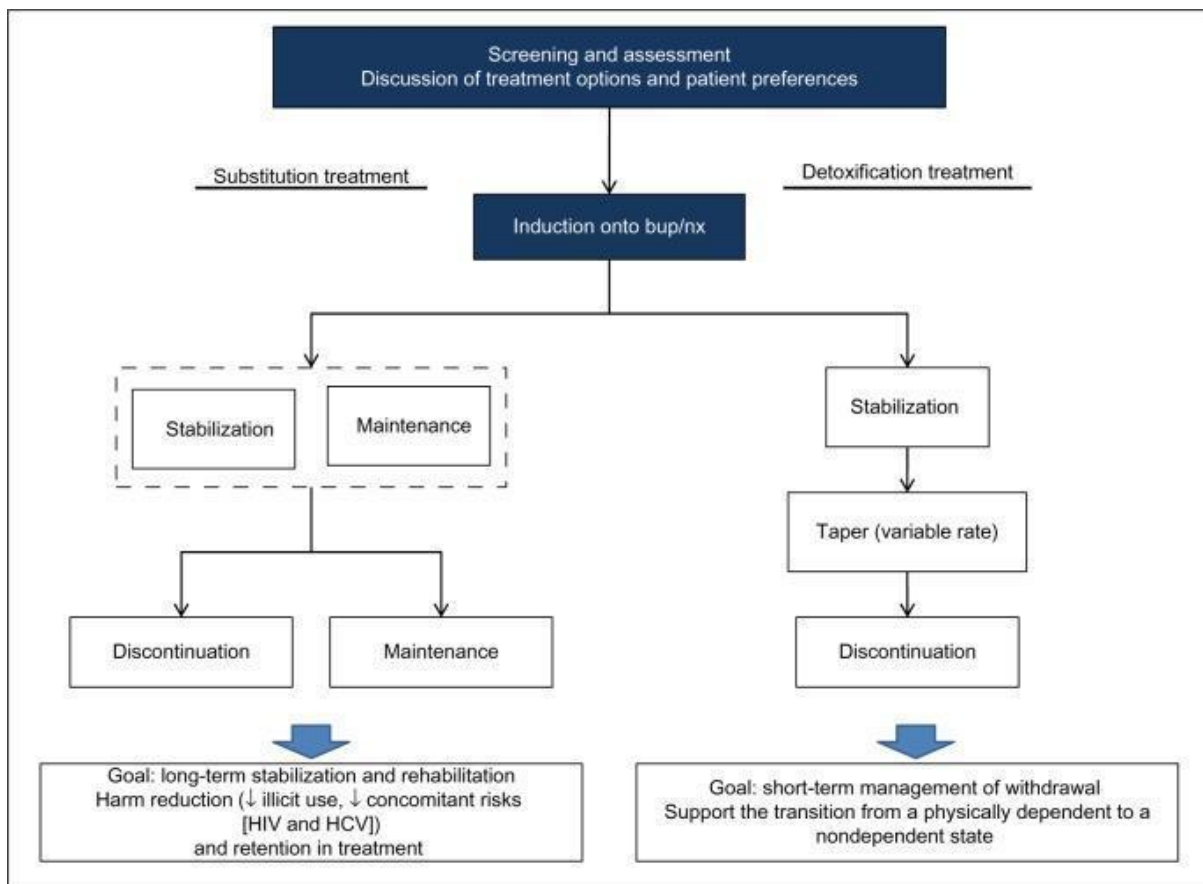
Note. Reprinted from the article 'Utilizing buprenorphine-naloxone to treat illicit and prescription-opioid dependence' (p. 589) by Mauger et al. (2014) in *Neuropsychiatric Disease and Treatment*. https://doi.org/10.2147/NDT.S39692

Screening and assessment are commonly done at drop-in/outreach community-based facilities for people using substances where CHWs, clinical associates, social workers, and outreach workers provide substance use healthcare services (Hugo et al., 2020). At COSUP, screening and assessment include comprehensive medical and psychosocial evaluations in order to confirm a diagnosis of opioid dependence, which then guides the patient's decision to undergo either medical detoxification or long-term substitution treatment (Hugo et al., 2020).

Maintenance is an ongoing process of administering medication to a client/patient as a form of treatment by substituting the use of heroin or other opioids with methadone, buprenorphine or naloxone (Mauger et al., 2014). It is unclear how long the optimum duration of maintenance is, but it can last even as long as a lifetime (WHO, 2009).

Stabilisation in the context of substance use treatment refers to interventions aimed at achieving physical and psychological stability with the main purpose of preventing a relapse (Center for Substance Abuse Treatment, 2004). Stabilisation ideally starts when the patient is no longer having withdrawal symptoms or cravings (Mauger et al., 2014).

Detoxification is the systematic elimination of toxic substances from a person's body as part of a recovery process from substance use (WHO, 2009). This process can be a medically supported inpatient programme or a community-based detoxification programme with medical support (Center for Substance Abuse Treatment, 2004).

Rehabilitation is the medical and/or psychotherapeutic treatment of SUDs, and this may involve facilitation of the reduction of medication such as methadone, buprenorphine, or naloxone in the case of the treatment of heroin or other opioid addiction (Hugo et al., 2020; WHO, 2009).

Discontinuation is an opioid-free state and is the ultimate goal of treatment in medically supervised withdrawal (Mauger et al., 2014). However, discontinuation needs to be considered after factoring in issues such as the level of the patient's motivation to discontinue, and the availability/provision of adequate psychosocial support services.

Aftercare services refer to the medical, psychosocial, and economic programmes designed to maintain abstinence and reduce the risk of relapse, facilitating the smooth transition of patients into independent, substance-free lives. These services are crucial in providing continued support after discharge from rehabilitation centres.

To conclude, harm-reduction interventions are useful for patients who, for whatever reason, may not be ready, willing, or able to pursue full/immediate abstinence as a goal (Logan & Marlatt, 2010). Most of the major United Nations organisations responsible for substance use policy, support harm reduction as an evidence-based approach for the treatment of opioid users (Alam-mehrjerdi et al., 2016; Cook et al., 2010). One of the merits of harm reduction is that it operates from a 'realistic' perspective that a continuing trend in substance use is inevitable in society, and, therefore, that measurements of health, economic, and social outcomes as opposed to measurement of drug consumption as promulgated by abstinence-centred strategies must be taken into account (Cheung, 2000). The principles of harm reduction such as humanism, pragmatism, individualism, autonomy, incrementalism, and accountability without termination appear to appeal greatly to a wide community of people using substances (Goodridge et al., 2021).

In the proceeding section, an overview of SUD treatment services in South Africa is presented.

2.6.3 Overview of SUD Treatment Services in South Africa

Most treatment services in South Africa follow an abstinence-centred approach or one that closely resembles it, while harm-reduction approaches are still trying to gain some visibility and acceptance. All abstinence-centred approaches and harm-reduction interventions, in one way or another, take a medical or psychological approach (Mohapatra et al., 2017). In South Africa, and in the context of the present study, medical intervention procedures include administering treatment drugs such as methadone under OST (Mohapatra et al., 2017). On the other hand, non-medical intervention procedures include motivational interviewing and counselling, psychotherapy, and the NSP to reduce further harm.

In South Africa, abstinence-centred approaches are followed mainly in residential rehabilitation centres (Kasiram & Jeewa, 2008), and the use of 12-step programmes is

common (Gifford, 2019). Although the cost of residential rehabilitation in South Africa continues to soar, relapse rates and the need for re-admissions are high, particularly among young adult males. Some of the commonly cited reasons for relapses and re-admissions are peer pressure, not being ready to stop using drugs, and family problems (K. Mokwena et al., 2021). However, compared to outpatient treatment, residential rehabilitation has been associated with a greater likelihood of treatment engagement and abstinence at treatment exit (Myers et al., 2018).

When a treatment approach is a structured multi-component behavioural treatment that embraces individual and group therapy, family treatment programmes, relapse prevention treatment, aftercare support, and psychoeducation delivered in a clinically coordinated manner, this approach is usually described as following the matrix model (Magidson et al., 2017). In South Africa, the matrix model has largely been implemented among people using methamphetamine in Cape Town, but there has been limited data on the application of the matrix model for other types of substance use disorders in a resource-limited setting (Magidson et al., 2017).

Harm reduction is another treatment approach used in South Africa. Outcomes such as reduction in drug use and/or risky behaviours have been found to be more readily achievable than abstinence-oriented outcomes (Goodridge et al., 2021; Huhn & Gipson, 2021). One of the commonly used harm-reduction strategies in South Africa is OST, which is a medically assisted treatment intervention. However, one of the challenges of substance use treatment has been the lack of some governments' readiness or adaptability to support public policy on efficacious treatment philosophies such as harm reduction (Schumacher et al., 2007). For instance, as mentioned in Chapter 1, COSUP is the only publicly funded harm-reduction initiative to treat substance use in South Africa. The excessive reliance on drug law enforcement, however, remains another one of the major barriers to increased

adoption of harm-reduction intervention strategies and it often stands in opposition to these initiatives (Beckett, 2016).

The next section focuses on the barriers to treatment. There is a need to bridge the treatment gap relating to substance use by addressing the barriers that impede the access to and the utilisation of treatment services.

2.7 Barriers to Treatment

To explore and explain the treatment gap relating to substance use in South Africa, the present research examined the SUD treatment barriers that young people faced, not only locally but also internationally, putting into perspective the international and local contexts. Treatment barriers are shaped by several factors that include individual factors and contextual factors (which can take the form of cultural influences and policy or implementation barriers) (Goldstone & Bantjes, 2017). Failure to take contextual factors into consideration may compromise the identification of treatment barriers and the development of a responsive, efficient healthcare system that is sensitive to the needs of people using substances (Goldstone & Bantjes, 2017). The treatment barriers presented in this chapter are categorised as individual/attitudinal barriers and structural/systemic barriers.

2.7.1 Individual/Attitudinal Barriers

Psychosocial/attitudinal barriers such as embarrassment or stigma, lack of perceived treatment need (PTN), lack of perceived treatment effectiveness, privacy concerns, and low motivation have been put forward as possible factors that impede treatment utilisation (Blanco et al., 2015; Luoma et al., 2012). These barriers are outlined below.

2.7.1.1 Lack of Perceived Treatment Need. Research indicates that a significant proportion of people living with SUDs do not seek treatment, with the lack of PTN being identified as one of the major contributing factors (Blanco et al., 2015; Moeller et al., 2020).

The National Epidemiologic Survey on Alcohol and Related Conditions (NESRAC) carried out in the USA by Moeller et al. (2020) indicated that the lack of PTN played a major role as a barrier to treatment among people with SUDs. As many as 77,2% of the people diagnosed with a SUD did not perceive a need for treatment. This finding corroborates the findings of earlier studies done in the USA and Europe (Glass et al., 2015; Mojtabai & Crum, 2013; Oleski et al., 2010).

In South Africa, young adults, compared to their older counterparts, have an even more elevated risk of not identifying substance use and dependence as a problem they need help for (Sorsdahl et al., 2012). This is partly because of the stronger influence of peers using substances in this age group (Galea et al., 2004; Oleski et al., 2010).

Despite increased medical insurance coverage in the USA through the Patient Protection and Affordable Care Act (also referred to as the Affordable Care Act) of 2014, a national survey on drug use and health in the USA revealed that 97% of the 18 600 participants with SUDs did not see the need for treatment (Ali & Agyapong, 2015). A recent wide-scale study involving 8 416 college students in the USA found that PTN was a significant predictor of a lack of help-seeking behaviour (Dschaak & Hammer, 2020). This implies that individuals, even if they have financial cover, will access treatment only when they perceive a need for it. Thornicroft et al. (2016) suggest that financial coverage alone is an insufficient deterrent, and, therefore, that awareness initiatives are needed to increase SUD treatment engagement.

Compared to any other USA racial/ethnic group, Latinos report the least for substance use treatment, and one of the major contributing factors has been cited as a low PTN (Pinedo et al., 2018). Research confirms that Latinos have low rates of treatment-seeking (Vaeth et al., 2017), with only 3% to 7% of them seeking specialty treatment for SUDs (M. Guerrero et al., 2021). Nevertheless, Latinos have a high prevalence rate of substance use (Vaeth et al.,

2017); therefore, there is a greater need for substance use treatment among them. It is hypothesised that there are cultural mediators of substance use and misuse among Latinos, and these are based on traditional gender role attitudes, for example, the concept of machismo a term which refers to the sense of being strong or aggressively masculine (Arciniega et al., 2008). The cultural perception of substance use as a reflection of masculinity may 'normalise' substance use and misuse in this cultural grouping and may preclude people from perceiving a need for an intervention (Alvarez et al., 2007; B. K. Finch, 2001).

Studies involving young adults using substances in Europe indicated a similar trend of a lack of PTN and it being a major obstacle to treatment utilisation (Gilchrist & Ireland, 2013; Glass et al., 2015). In an extensive study on substance use treatment barriers conducted in Bulgaria, Greece, Italy, Poland, Slovakia, Slovenia, Spain, and Scotland, the failure to recognise a problem (PTN) emerged as one of the central themes. According to Glass et al. (2015), only 25.9% of the young adults using substances recognised the need for treatment. Many young adults fail to perceive that their substance use is problematic and may regard their behaviour as normal given their developmental stage. High prevalence of alcohol use disorder among young adults has also been found in central-western and western Europe (Rehm et al., 2015), but a disparity has been found between the number of people who have alcohol use disorder and the number of them who enter treatment.

In India, one of the most populous countries in the world, PTN and stigma have been rated as two of the most significant factors contributing to low substance use treatment utilisation (Perumbilly et al., 2019). Perumbilly et al. (2019) observe that, in spite of substance use treatment services being heavily subsidised and affordable in India, treatment utilisation remains relatively low. Increased awareness related to SUDs and more readily available information on where to access treatment are pivotal to optimal utilisation of SUD treatment services (Blanco et al., 2015).

In South Africa, research evidence shows that the extensiveness of the lack of PTN as a treatment barrier is similar to that indicated in international studies. Local research has found that people from low socio-economic backgrounds are less likely to be able to perceive and accept that they need help (Hedden & Gfroerer, 2011; Myers et al., 2014; Peltzer et al., 2010). Since the prevalence of substance use is higher among people from lower socio-economic backgrounds, a possible explanation as to why they do not perceive any treatment need could be that they have learnt to justify, rationalise and normalise (as posited by the cognitive dissonance theory) substance use as a normal part of their lives and daily routine activities (Harmon-Jones & Mills, 2019). Furthermore, although research has traditionally shown that the lack of PTN is greater among men than women, studies in the Western Cape province (the highest substance-using province in South Africa) identified this lack as one of the main barriers to substance use treatment among women as well (Isobell et al., 2018; Myers et al., 2014). Additionally, a significant proportion of young women who could potentially benefit from treatment, do not actually believe that they need treatment (Myers et al., 2014). These findings come from baseline data on 720 young substance-using women from disadvantaged communities in Cape Town, South Africa (Myers et al., 2014). The research was carried out against a background of low levels of initiation in the treatment of SUDs.

Research has shown that one of the reasons people using methamphetamine do not seek treatment is that they do not perceive any need for treatment because they do not consider themselves as 'hard drug' users; in other words, they believe they are not dependent drug users and cannot be identified with people using heroin (Kenny et al., 2011). Some studies suggest that people using methamphetamine are of the view that most treatment services are tailor-made to address the needs of a particular group of people, namely, opioid-using individuals (Cumming et al., 2016).

Taken together, these overall findings suggest that PTN is a significant barrier to treatment utilisation. The present study proposed that PTN was a determinant of treatment entry.

2.7.1.2 Stigma. Stigma is classified as enacted stigma, perceived stigma, and self-stigma (Luoma et al., 2007). Enacted stigma refers to the direct experiences of discrimination by the person using substances at the hands of community members (Reilly & Houghton, 2019). Perceived stigma emanates from being in possession of an attribute or a health condition that is culturally or socially perceived to be undesirable, resulting in the individual anticipating negative experiences (Reilly & Houghton, 2019). In contrast, internalised/self-stigma is the endorsement of negative thoughts related to stigma by the stigmatised individuals themselves, leading to a wide range of negative consequences that can hinder treatment services utilisation (Bradstreet et al., 2018; Luoma et al., 2007; Milner et al., 2018).

Stigma has various domains that are interrelated and overlapping. According to Link and Phelan (2001), stigma can be viewed as the co-occurrence of components such as labelling, stereotyping, separation, status loss, and discrimination. For stigmatisation to occur, there should be power differentials and cognitive separation where one group devalues the other, resulting in status loss, social rejection, and discrimination (Link & Phelan, 2001). Figure 5 illustrates the various domains of stigma.

Figure 5

Stigma Domains

Note. Reprinted from 'Stigma of addiction and mental illness in healthcare' (p. 6) by Brondani et al. (2017) in *PloS One, 12*(5), e0177388.

https://doi.org/10.1371/journal.pone.0177388

Using the major stigma concepts, such as stereotyping, devaluation in terms of status loss, discrimination, and negative emotional reactions, a review of several studies has been done, revealing that the public holds stronger stigmatised views towards individuals with SUDs than towards those who have other mental health disorders (Yang et al., 2017). Stigmatisation results in a cascading chain that ultimately affects the individual in need of treatment. For instance, stigma can reduce the willingness of policymakers to allocate resources, and of providers in non-specialty settings to screen for and address substance use

problems, which may, in turn, limit the willingness of individuals with such problems to seek treatment (Yang et al., 2017). All of these factors could be possible explanations of why so few individuals with SUDs seek and receive treatment.

There is evidence of stigmatisation against people with SUDs in the Americas, notably in Brazil (Santos da Silveira et al., 2018), Canada (Brondani et al., 2017), the USA (Morris & Melia, 2019), and many other parts of the Americas. A qualitative study in treatment centres across Mexico City revealed that social rejection of substance use was higher than other psychiatric conditions (Mora-Rios et al., 2017).

This suggests that when it comes to drug use and addiction, different levels of stigma are attached to different substances. Heroin injecting has been observed to carry more stigma than the use of most other illicit drugs (Whitaker et al., 2011). In a study in Dublin, Ireland, respondents mentioned that heroin was more stigmatised than cocaine (Whitaker et al., 2011). Methamphetamine use also draws significant stigmatisation. In a meta-analysis and systematic review of data of 11 studies involving five countries, stigma was identified as one of the most common treatment barriers to methamphetamine treatment (Cumming et al., 2016). The prevalence of stigma towards people using methamphetamine has been measured and confirmed in studies using validated instruments such as the Perceived Stigma of Substance Abuse Scale, the Perceived Stigma of Addiction Scale and many others (Chang et al., 2020; Tuliao & Holyoak, 2020).

Similarly, in South Africa, more stigma attaches to people who use drugs than to people who have other mental disorders, and this is partly attributed to personal culpability associated with SUDs (Sorsdahl et al., 2012). The use of heroin, locally known as *nyaope* or *whoonga,* carries high levels of stigma, leading to marginalisation of users and their families by the community (Bala & Kang'ethe, 2021). This is in contrast to users of cannabis and alcohol, as these substances are considered less harmful (Sorsdahl et al., 2012). The use of

nyaope (low-grade heroin) has infiltrated many underprivileged communities in South Africa (Peltzer et al., 2010). This is facilitated by the fact that it is one of the least expensive drugs in the market, with a high potency and demand. Nyaope has a particularly thriving market in urban Gauteng and Durban, where the majority of the city-based users are from economically disadvantaged backgrounds, often making a living in the informal sector or, if they are unable to do that, by committing petty crimes (Marks & Howell, 2016; Ngcobo, 2019). The nyaope users have quickly become scapegoated for numerous broader issues of urban decay (Marks et al., 2017). Research indicates that people using substances have become stigmatised, demonised, and stereotyped as criminals, and that the stigma attached to nyaope use impedes nyaope users from opening up about their problem. These attitudes and behaviours become a barrier to help-seeking behaviour and treatment (Marks et al., 2017).

2.7.1.2.1 Stigma Towards Substance Use and Substance Use Treatment Internationally. In the USA, mental illness and SUDs are among the most stigmatised health conditions, and this explains the country's restricted support of policies designed for these groups (Liebling et al., 2016; McGinty et al., 2018). A national survey conducted in the USA in 2013 indicated that stigma towards people with SUDs and other mental illnesses was associated with diminished public support for increasing government spending on SUD treatment (McGinty et al., 2018). This creates some imbalances in public health delivery and structural inadequacies in the government's preparedness to deal with SUDs and other related and non-related mental health issues (McGinty et al., 2018). In another study in 2014, stigma was correlated with heightened support for punitive policies against people with opioid use disorders (Chen & Stuart, 2021; McGinty et al., 2018). The negative public opinion towards people with SUDs has the negative effect of reducing help-seeking behaviour (Chen & Stuart, 2021).

The stigma against substance use in Muslim communities has resulted in limited self-report and research (Arfken & Ahmed, 2016). Most Muslim parents may even feel uncomfortable to discuss substance use issues with their children (Arfken & Ahmed, 2016). Substance use is a sensitive topic in Muslim-majority countries, and treatment access becomes compromised due to the stigma attached to substance use (Al-Ansari, 2020).

Results from a study conducted in 28 countries showed that the negative attitudes of health professionals diminished patients' feelings of empowerment and subsequent expected outcomes of substance use treatment (Van Boekel et al., 2013). Healthcare professionals also reported more negative attitudes towards patients in relapse than towards those on a path to recovery. Instead of having a 'responsibility-oriented approach', the health professionals showed a 'job-oriented approach' towards substance use patients, leading to diminished personal engagement (Van Boekel et al., 2013).

It has also been observed that greater stigma is attached to particular treatment methods, such as OST, and other harm-reduction interventions such as NSP (Bojko et al., 2015). There is some fear to access care that involves harm-reduction programmes which include OST because the PWID want to avoid being labelled 'drug addicts' (Lan et al., 2018). Khampang et al. (2015) have also reported that, because of stigma, there is low OST treatment utilisation among young adults in Malaysia.

Another form of stigma called intervention stigma is found in the context of medically assisted treatment, especially involving methadone and buprenorphine, where both the patient and professionals are stigmatised (Madden, 2019). Additionally, professionals working in this field experience discrimination from fellow healthcare professionals, particularly from professionals who believe in abstinence-only-centred treatment approaches (Madden, 2019). Health professionals handling SUD patients have, in turn, often reported experiencing frustration and low motivation when dealing with substance use patients due to the negative

tag that society and fellow healthcare workers attach to substance use and its treatment (Horner et al., 2019). To promote access to treatment, there is thus a need for public awareness about substance use and mental health.

2.7.1.2.2 Stigma Towards Substance Use and Substance Use Treatment in South Africa. The stigma attached to substance use treatment which is experienced in countries other than South Africa is consistent with the situation in South Africa. Some of the reasons cited for poor delivery of services by mental health professionals in South Africa include inadequate training, poor motivation, and inability to deal with substance users (Babatunde et al., 2021; Marais & Petersen, 2015). Most of these health and social care professionals feel unable or unwilling to empathise with substance use patients, and prefer a scenario where addiction specialists deal with substance use patients (Marais & Petersen, 2015; Ross et al., 2015).

2.7.1.3 Lack of Perceived Treatment Efficacy. Research on evidence-based integrative substance use treatment approaches has shown that treatment options are limited, and that this has an impact on treatment services utilisation (Gouse et al., 2016; Perumbilly et al., 2019). This suggests that if a broader scope of treatment options is made available, SUD treatment utilisation can be enhanced. Perumbilly et al. (2019) point out that, on a global scale, the lack of systemic-focused interventions that can integrate family into the patient's treatment negatively contributes to diminished perceived treatment efficacy, and that this acts as an obstacle to treatment.

In the context of South Africa, some people using substances do not seek treatment because they do not perceive a need for treatment, sometimes as a result of having little information about the treatment strategies available (Myers et al., 2010). For instance, the information available on OST and the concept of harm reduction is limited, leading to some misconceptions that treatment may not be effective (Hugo et al., 2020; Myers et al., 2010).

South Africa imports most SUD programmes and strategies from other countries, and sometimes there may be inadequate efforts to educate local communities on how these interventions work, creating gaps in knowledge about how well these SUD programmes fit into the local contexts (Odejide, 2006).

2.7.1.4 Privacy Concerns. Privacy concerns have been documented as hampering treatment utilisation among individuals living with substance use disorders (N. G. Choi et al., 2014). Low treatment engagement rates and high treatment dropouts are common where privacy surrounding the treatment process is compromised (N. G. Choi et al., 2014; Najavits, 2015). Because of the stigma attached to substance use issues, there is some measure of sensitivity related to substance use treatment processes. Young adults are more likely to report privacy concerns than their older counterparts (N. G. Choi et al., 2014). This may be due to various reasons, for example, fear, the shaming of their families, and the possibility of facing disciplinary action at school. Privacy concerns are also especially an issue according to research done on formerly incarcerated adults with SUDs (Owens et al., 2018).

Research in South Africa cites poor motivation as another reason why healthcare service utilisation is low among people using substances (Priester et al., 2016). This low motivation to seek treatment is sometimes associated with privacy concerns, specifically users' need to avoid inquiry into and monitoring of their drug use (Matsuzaki et al., 2018; Priester et al., 2016). Treatment for substance use is generally a complex process that involves processes such as interviewing, assessment, and counselling which can be personal and may be experienced as an invasion of privacy. There is a need for enhanced motivational strategies to encourage people using substances to seek treatment (Myers et al., 2016).

2.7.1.5 Biographic Variables as Contributing Factors to Utilisation of Services. In line with the goals of this study, the literature on the influence of biographic variables, namely, gender and race, on healthcare utilisation is reviewed.

2.7.1.5.1 Gender. According to Pienaar et al. (2018), the role of gender in treatment utilisation remains unknown. Some research has found that women are less likely than men to utilise SUD healthcare services owing to factors such as enhanced stigma against women using substances (Stringer & Baker, 2018). However, other studies have found that women are generally more likely than men to utilise healthcare treatment services (Hernandez-Avila et al., 2004). In South Africa, a study to examine the role of gender on substance use treatment utilisation revealed that treatment barriers had a greater impact on women than on men (McHugh et al., 2018). It could be argued that research results are inconclusive regarding the role of gender on service utilisation, and that this may possibly be due to contextual variations. This represents a gap which the present research attempted to bridge.

Research findings have shown that the sexual orientation in sexual minority groups (lesbian, gay, bisexual, transgender) may present a barrier in healthcare utilisation (Bouris, 2016 et al; Luvuno et al., 2019). Evidence suggests that, compared to heterosexual peers, sexual minority groups are at a higher risk of abusing substances and developing SUDs (Flentje et al., 2015). Luvuno et al. (2019) have found that sexual minority groups in South Africa, apart from being at a greater risk of using substances, present themselves less often (and significantly so) for treatment. This finding corroborates findings in some other parts of the world (Haney, 2020). It has also been observed that healthcare workers' curriculums give no attention to how to work with sexual minority groups (Dangerfield et al., 2021). Treatment approaches that patients perceive to be insensitive to their needs are likely to repel treatment engagement.

2.7.1.5.2 Race. J. B. Cummings et al. (2011) state that some racial disparities in substance use health services utilisation have been observed. For example, in one study in the USA it was observed that white people were twice as much more likely to utilise SUD treatment services compared to their black counterparts (Saloner et al., 2014). As discussed

earlier, there is a high prevalence of substance use among Latinos, largely owing to their disadvantaged socio-economic backgrounds, yet they still do not enter treatment. The study findings showed that race could be a significant predictor of substance use healthcare utilisation.

In South Africa, the SACENDU report for the period January to June 2020 indicated that the substance use patient intake in the Western Cape (the province with the highest number of substance users) continued to be dominated by people of coloured descent (73%), followed by Black Africans (15%), white people (12%), and Indians (less than 1%) (B. Cummings et al., 2021). During the same period, the patient intake in Gauteng (the province with the second-highest number of substance users) was as follows: Black Africans (73%), coloured people (15%), white people (10%), and Indians (2%) (B. Cummings et al., 2021). Although the SACENDU statistics give important information on patients' intake based on race, the statistics do not account for the vast differences relating to geographical distribution. For instance, the population of people of coloured descent in the Western Cape province is larger than in Gauteng, which, therefore, tilts the balance towards a greater likelihood/probability that there will be a greater representation of people of coloured descent being admitted to healthcare facilities in the Western Cape.

2.7.2 Structural Barriers

Several systemic or structural factors are perceived to hinder treatment utilisation (Kenny et al., 2011; Priester et al., 2016). These factors include inadequate resources, fragmented services, physical inaccessibility, cultural factors, prohibitive and Punitive legal frameworks, and costs.

2.7.2.1 Inadequate Resources. Most mental healthcare delivery systems in LMICs have been found to be unable to deliver services at optimal levels (Hanlon et al., 2016). The main reason for this may be the lack of public funding allocated to mental healthcare (in the

case of South Africa via the Department of Social Development) to ensure there are enough treatment facilities, adequately trained healthcare personnel, and a coherent integrated mental healthcare system.

Structural barriers, including the sourcing of medicines, limited treatment options, and limited data on treatment provision, have been reported in Middle Eastern countries such as Oman, Egypt, United Arab Emirates, and Kuwait (Elkashef et al., 2019). There is a high unmet need for opioid use disorder treatment that is driven by expert-led consensus on integrated effective policy and treatment programmes. In the Persian Gulf region, with the exception of Iran, OST is poorly developed, and this can be attributed to the paucity of research on opioid use in the region and also to Islamic prohibitions on opioid use (Alam-mehrjerdi et al., 2016). These are some of the structural barriers that have worked against the delivery of an effective substance use treatment service in this context.

In sub-Saharan Africa, structural barriers include the lack of service providers for mental, neurological, and substance use disorders (P. Y. Collins et al., 2015). Time devoted to the training of doctors and nurses in mental health in sub-Saharan Africa ranges from 1% to less than 20% of their training (P. Y. Collins et al., 2015). Despite a greater need for substance use treatment in sub-Saharan Africa, and in settings in LMICs in general, there remains a deficit in adequately trained healthcare personnel, which interferes with the service delivery system (Docrat et al., 2019).

In South Africa, Pasche and Myers (2012) identify a scarcity of treatment centres and an inadequately trained workforce as predominant structural barriers to SUD treatment. Schierenbeck et al. (2013) cite a lack of adequately trained healthcare practitioners and of training programmes to facilitate specialised treatment of SUDs as significant barriers to substance use treatment utilisation in South Africa. There is a glaring shortage of adequately trained personnel, and this limits the expansion of service coverage. Moreover, there is no

provision for health professionals to register for addiction specialty with the Health

Professions Council of South Africa (Pasche et al., 2015; Schierenbeck et al., 2013).

Furthermore, certified courses for addiction counsellors are few and not always readily

available. Institutions of higher learning, such as Stellenbosch University and the University

of Cape Town, have, however, been making some commendable strides in recent years by

introducing courses such as the Postgraduate Diploma in Addiction Care and also the MPhil

in Addictions Psychiatry (Pasche et al., 2015). These will, hopefully, help in producing more

addiction specialists in the SUD treatment field.

    2.7.2.2 Fragmented Services. Fragmented services relate to characteristics of the

healthcare system that impede treatment utilisation (Posselt et al., 2017). These can manifest

in the forms of an inability of healthcare practitioners to productively engage and collaborate

with patients, complex treatment registration processes, and lengthy waits for acceptance into

treatment programmes. Fragmented services in the healthcare system are usually the results

of flawed administrative practices, inept laws and regulations, poor funding, poor data

management systems, and poor training of staff (Posselt et al., 2017). Fragmented services

can also relate to poor integration of substance use services with health services, resulting in

potential patients not knowing where to get help (Posselt et al., 2017; M. J. Smith et al.,

2015). Primary care clinics/hospitals will tend to send patients away if substance use services,

being specialised services, are not available.

    The lack of competent and adequately trained personnel, particularly in low-resource

settings, has resulted in patients having fragmented services at their disposal, dissuading them

from seeking treatment (Kisely et al., 2020; M. J. Smith et al., 2015). Evidence shows that

people using substances prefer collaborative practices from practitioners, negotiating a way to

work together, and establishing a joint understanding and a strategy on how to achieve set

goals (Ness et al., 2016). People using substances do not seem motivated to enter into

treatment in situations where the practitioner assumes the role of only giving information to the patient instead of brokering a partnership towards a mutually agreed upon destination (Ness et al., 2016). Most healthcare systems lack mental healthcare professionals of the latter kind, which further discourages individuals who use substances to seek or remain in treatment (Kisely et al., 2020; Ness et al., 2016).

In South Africa, further structural barriers, such as a limited number of treatment slots, the slow registration of drug users, and long waiting lists, have been identified as impediments to treatment utilisation (Versfeld et al., 2020).

2.7.2.3 Physical Accessibility. In this study, physical accessibility relates to the distance that treatment seekers need to travel to access treatment.

Physical accessibility is typically a barrier to substance use treatment in rural areas, particularly in the developing world (Khampang et al., 2015). In one study on access to methadone maintenance therapy in southern Thailand, about 24.5% of the participants had difficulties in accessing treatment due to the long distances they had to travel to treatment centres and the subsequent high costs involved, and 24% of them had problems with the treatment centres' opening times (Khampang et al., 2015). Similar trends are noticeable in rural areas of many developing countries where treatment centres can be limited and inaccessible (Burns et al., 2016). For example, in rural South Africa, treatment seekers need to travel long distances in order to access treatment, and transport costs can be high (Myers et al., 2010).

2.7.2.4 Cultural Factors. When discussing substance use and treatment, it is always important to put into perspective the influence of culture. Culture subsumes identity, and behaviour is defined according to the norms and values entrenched in that particular societal grouping (E. Guerrero & Andrews, 2011). Culture is essentially important in shaping a person's worldview and can act as a determinant in healthcare utilisation.

A lack of cultural openness to discuss substance use issues is a major factor in contributing to low treatment initiation (Al-Ansari, 2020; E. Guerrero & Andrews, 2011). A study by Al-Ansari (2020) in Iran shows that substance use is a sensitive topic and, as such, has been understudied. Similar conservative attitudes have been observed in wider Muslim communities. Findings among the Muslim communities in Canada reveal that the rigid approach to mental health and addiction issues (e.g. using conventional healthcare models), may hinder treatment utilisation (Jozaghi et al., 2016). This underscores the importance of cultural aspects such as religion.

Valdez et al. (2018) report a lack of cultural competence among service providers as one of the impediments to help-seeking among Hispanic people. Treatment seekers expressed their discomfort about receiving treatment from non-Spanish-speaking people because they felt they could be misunderstood when trying to explain their experiences.

South Africa is a culturally diverse country where the influence of culture on different aspects of life needs to be factored in so as to gain an understanding of different phenomena. For example, one study conducted on student nurses in South Africa revealed that the consequences of socialisation, inclusive of family background, as well as traditional practices and values, contributed to differing substance use patterns and treatment behaviour (Netshiswinzhe et al., 2021). However, there is a paucity of information on the role of culture in facilitating/impeding the utilisation of substance use treatment services, and further research is needed (Hills et al., 2016).

2.7.2.5 Prohibitive and Punitive Legal Frameworks. There is a growing body of literature showing that punitive legal systems that lean more towards incarceration than treatment have contributed to the underutilisation of substance use treatment services (Arfken & Ahmed, 2016; Scheibe et al., 2017).

Arfken and Ahmed (2016) express the hope that the drafting and implementation of policies in the USA that focus more on treatment rather than on incarceration, including expansion of medically assisted treatment, will assist in overcoming this barrier to treatment.

South Africa has been battling with policy and law enforcement issues regarding substance use matters (Peltzer et al., 2010). Although South Africa is a signatory to many international drug control treaties, law enforcement on substance use has traditionally been ineffectual, aided by growing tolerance towards drug use (Peltzer et al., 2010; Scheibe et al., 2017). One example of a community response to the frustration growing from the ineffectiveness of law enforcement officials in dealing with drug-related crimes in the Western Cape, was the formation of a vigilante movement in 1995 called People Against Gangsterism and Drugs (Peltzer et al., 2010). In Gauteng, police patrols in the Yeoville area give little attention to transactions between sellers and buyers in public places, suggesting that law enforcement on drug use is largely ineffective (Peltzer et al., 2010). Although there needs to be water-tight law enforcement on drug use, this does not serve as justification for indiscriminate arrests and rampant harassment of drug users at the hands of law enforcement agencies. This view has led to suggestions that police need to be trained in protocols of handling or arresting people using substances (Duby et al., 2018; C. D. Parry et al., 2004). A transparent, non-judgemental and effective law enforcement system on drug use coupled with the establishment of well-resourced, coordinated, functional, and patient-centred treatment services can actually motivate substance users to use treatment services (Buxton & Bingham, 2015; Duby et al., 2018; Scheibe et al., 2017). It appears that, at the moment, there are many loopholes and inefficiencies in the law enforcement on drug use, and also that mental health services are under-resourced (Docrat et al., 2019). Therefore, people using substances can easily evade arrests, and they are not motivated to seek treatment because of the several inadequacies and inefficiencies in the mental health delivery system (Docrat et al., 2019).

Scheibe et al. (2017) argue that there is a need for effective law enforcement interventions. These authors point out that people who use substances have consistently identified negative engagement with law enforcement as their major concern. These reports were corroborated in a 2015 programmatic mapping study where people who used substances revealed experiences of harassment, confiscation of injecting equipment and methadone medication, and extortion by law enforcement officers (Scheibe et al., 2016). Such experiences can be a significant barrier to treatment, especially if one considers that, in some other places, such as Tijuana in Mexico and Gloucester in the UK, voluntary law enforcement-led treatment programmes refer and link substance users to treatment, which have led to more people being motivated to seek treatment (Olgin et al., 2020; Schiff et al., 2017; Yatsco et al., 2020).

2.7.2.6 Costs. Financial costs may not be a significant barrier in countries such as the USA where there is expanded medical insurance cover like the Affordable Care Act, but financial costs are a barrier to treatment among communities (e.g. Hispanic communities) who do not have access to medical insurance (Valdez et al., 2018). Financial costs are a major barrier to substance use treatment utilisation among sub-Saharan migrant youths settled in Australia (McCann et al., 2016). A thematic analysis of the data obtained from FGDs and in-depth interviews revealed financial constraints as one of the contributing factors why the migrant youths did not seek treatment. This can possibly be explained by the fact that the sub-Saharan migrants have a low socio-economic background, so treatment is not easily affordable (McCann et al., 2016).

In South Africa, the financial costs of accessing treatment remain a noticeable barrier in low- to middle-income households. According to Pasche and Myers (2012), the increase in heroin use in South Africa, particularly in the inland provinces such as Gauteng, has elevated the need for OST, which is rather costly and is not provided in most publicly run institutions.

In LMICs, such as South Africa, the cost of medication is beyond the reach of many, particularly people from disadvantaged backgrounds (where the prevalence of substance use is the highest) (Goldstone & Bantjes, 2017). Financial constraints are a major barrier to those in need of treatment services.

2.8 Conclusion

The literature review shows that the dominant barriers to treatment among young adults living with SUDs fall distinctly into structural and attitudinal categories. Stigma, as a barrier to treatment, seems to be more prevalent in socially conservative societies (Massad et al., 2016). Fragmented services and lack of resources resulting in inadequately trained healthcare personnel, shortages of healthcare facilities, high cost of healthcare, lack of cultural competence of staff, and limited healthcare insurance or medical aid assistance for disadvantaged patients are some of the significant barriers to treatment, particularly in LMICs where budget constraints are common (Al-Ansari, 2020; Docrat et al., 2019; Pasche & Myers, 2012; Peltzer et al., 2010). Typical of most LMICs, South Africa is faced with a challenge of limited research on factors that hinder treatment utilisation among people living with SUDs (Goldstone & Bantjes, 2017). South Africa experiences individual and structural barriers in SUD treatment and research, and these barriers have some contextual influence (Goldstone & Bantjes, 2017). One of the precipitating reasons for a lack of research is that recruitment of participants in substance use studies is invariably complex, considering that South Africa is a society where some substance use is often illegal, stigmatised or both (Patt & Barnhart, 2021). This heightens the importance of the present research, particularly in the Gauteng province, which is intended to expand on extant literature that has focused largely on the Western Cape province in recent years (Jacobs & Coetzee, 2018). As a country rich in cultural diversity, this research is invaluable for examining some of the cultural and religious/traditional influences that may shape substance use treatment attitudes and

behaviours within the context of South Africa. Substance use prevention and treatment cannot be adequately addressed without factoring in the social, economic and political climates prevailing in a defined area, region, or country (Scheibe et al., 2017). In this regard, the present research contributes to a multifactorial and holistic understanding of barriers to substance use treatment.

The next chapter introduces the theoretical frameworks used in this study, addressing how these frameworks guide the methodology, data analysis and interpretation of the findings of this study.

Chapter 3: Theoretical Framework

3.1 Introduction

There are several philosophical worldviews of social reality such as positivism, constructivism, pragmatism, and Critical realism (CR) (Christ, 2013). Underlying these philosophical worldviews are different ontological, epistemological, and axiological assumptions that shape the research methodology/paradigm adopted by researchers (Ardalan, 2008). In this chapter, CR, alongside Socio-ecological model (SEM) and Andersen's Behavioural Model (ABM), are outlined, and explanations are given about how they address the research question and reinforce the research methodology, and how they are applied to the analysis and interpretation of substance use and help-seeking behaviour.

3.2 Critical Realism as a Research Paradigm

Bhaskar is credited for developing a philosophy of science called critical realism, which consists of a combination of the tenets put forward in his work on transcendental realism and critical naturalism (Bhaskar & Hartwig, 2010). CR posits the view that the existence of events and causal mechanisms is not dependent on our observation of them (Sayer, 2000). Further, CR argues that the 'social world' operates fundamentally differently from the 'natural world', holding the belief that social phenomena should be studied on a level that is deeper and beyond the observable, and with the understanding that a complex interplay of factors may contribute to social events and phenomena (Sayer, 2000). CR was born out of a growing dissatisfaction with both the prevailing influence of positivism and the mounting impact of interpretivism on the social sciences (Sayer, 2010).

The core tenets of CR are transcendental realism and critical naturalism (Creaven, 2014). These tenets assert that a stratified, structured, and changing reality exists independently of our knowledge of it (Bergin et al., 2008). This stratified reality is made up of 'the empirical', 'the actual', and 'the real'. The empirical stratum is made up of the

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observable experiences as seen or observed by social actors in everyday life (Bergin et al., 2008). 'The actual' includes both the observed and unobserved, whereas 'the real' consists of all the unobservable experiences that exist independently from human perceptions, theories and constructions, including causal and generative mechanisms (Bhaskar & Hartwig, 2010). CR is, therefore, a meta-theory (i.e. a theory of theories) that operates from the assumption that 'reality' has to be viewed via a stratified ontology that is mind-independent (Allana & Clark, 2018).

3.3 Critical Realism's Relationship With Positivism and Interpretivism

According to Gannon et al. (2022), positivism and interpretivism stand at opposite ends of the ontological and epistemological spectrums. Both paradigms reduce the nature of reality to our knowledge of reality, or our ability to know reality.

While CR maintains that a 'social reality' and a 'natural reality' exist independently of our thoughts, beliefs, knowledge, and theories about them, positivism makes a narrowed realist ontological assumption that there is a single 'external reality' governed by universal laws, which exist independently of human minds – nonetheless, we have direct access to it (Sayer, 2000). Positivism leans more towards objectively derived causal laws to explain human behaviour and social phenomena rather than accounting for subjective and contextual factors. CR, on the other hand, embraces the notion that complete objectivity is impractical and not possible because knowledge is culturally and historically specific (Forrester & Sullivan, 2018). Interpretivism holds the relativist ontological belief that a single external world does not exist and that, instead, reality is relative and constructed through social and other influential forces (Ryan, 2018). Interpretivism operates from the standpoint that objective knowledge of the world is not possible, and that knowledge is always constructed through interpretation and subjective meanings (Archer, 2016).

As stated earlier, CR proposes that the existence of events and causal mechanisms is not dependent on our observation of them (Sayer, 2000). Furthermore, reality from a critical realist perspective includes all natural and social objects and structures that exist, whether we are able to perceive them or not (Forrester & Sullivan, 2018). Therefore, their existence is not dependent on our knowledge of them.

3.4 Critical Realism and Causality

CR stands opposed to the view of empiricism that causal relationships can be located at the level of events where the relationship between cause and effect is observed and a meaning is imposed (Tikly, 2015; Vincent & O'Mahoney, 2018). Instead, CR locates causal relationships at the level of a generative mechanism, positing that causal relationships are irreducible to Hume's doctrine of empirical constant conjunctions (i.e. repeated observation of events of type A, followed by events of type B) (Agbedahin & Lotz-Sisitka, 2019). The key philosophical question becomes, 'should these constant conjunctions allow us to conclude that event A causes event B, or [that] they are perhaps sometimes merely accidental correlations?' (Agbedahin & Lotz-Sisitka, 2019, p. 103). The issue of constant conjunction has been the topic of considerable debate, having been pursued by philosophers such as Immanuel Kant (Agbedahin & Lotz-Sisitka, 2019; Vincent & O'Mahoney, 2018). The debate centres on the ability to differentiate between causal relationships and accidental correlations. At the core of CR's view of causality is the belief that the repeated observation of events (be it two variables co-occurring or a regular pattern of events) does not necessarily constitute causality (Agbedahin & Lotz-Sisitka, 2019; Tikly, 2015).

To show how the mechanisms at a deeper level of reality influence events that unfold in the world, the stratified ontology of CR has been described by Vincent and O'Mahoney (2018) on the following levels:

1. Empirical level. Events are perceived (observed and experienced by humans).

2. Actual level. Events (and non-events) are produced by the deep level; they occur whether or not they are perceived by humans.

3. Deep level. Causal mechanisms are inherent to objects or structures and generate events.

The emergent, stratified ontology of CR dictates that mechanisms at a deeper level of reality (i.e., the 'real level') are the cause of the events that unfold in the world (Sayer, 2000). The objects and structures referred to above possess both causal powers (e.g. the capacity to act in a certain way) and causal liabilities, connoting a susceptibility in response to certain forms of change (Sayer, 2000). This implies possessing knowledge of what is happening and why it is happening.

3.5 Critical Realism, Seven Scalar Laminated Ontological System, and Socio-ecological Model

Given its stratified, emergent, open-systems ontological perspective, CR provides us with the opportunity to look at the broader landscape, to obtain a meta-view, and to ask deeper questions about the landscape and what lies within it (Sayer, 2010). At the real level lies objects and structures which are composed of elements. Objects, or entities, and structures can include individuals, groups, families, communities, organisations, businesses, governments, corporations, and any other social, cultural, and organisational groupings (Bhaskar & Hartwig, 2010; Sayer, 2000). These objects and structures are comprised of elements which would, for example in the case of a family, include the family members and their relationships with each other. Elements possess causal powers, and when the powers of these elements are combined, their combined power is emergent (i.e. irreducible and uniquely different from their individual powers) (Sayer, 2000).

CR's stratified layers of influence are relatable to and further expanded in the SEM and the seven scalar laminated ontological system (Agbedahin & Lotz-Sisitka, 2019). The

seven scalar laminated ontological system (Agbedahin & Lotz-Sisitka, 2019; Bhaskar & Hartwig, 2010) allows for a wider analysis of the social world as a multi-tiered stratified reality. The seven scalar laminated ontological system is parallel with the SEM in that both perspectives present a platform for scientific inquiry into the nature of reality (Bhaskar & Hartwig, 2010). Furthermore, both are explanatory mechanisms that can be studied across several levels of reality and orders of scale – from the macro levels where overarching mechanisms reside, to the micro levels where underlying mechanisms exist (Bhaskar & Hartwig, 2010).

Figure 6 is a diagrammatic representation of the seven scalar laminated system, with arrows showing how the patterns between layers emerge.

Figure 6

The Seven Scalar Laminated System
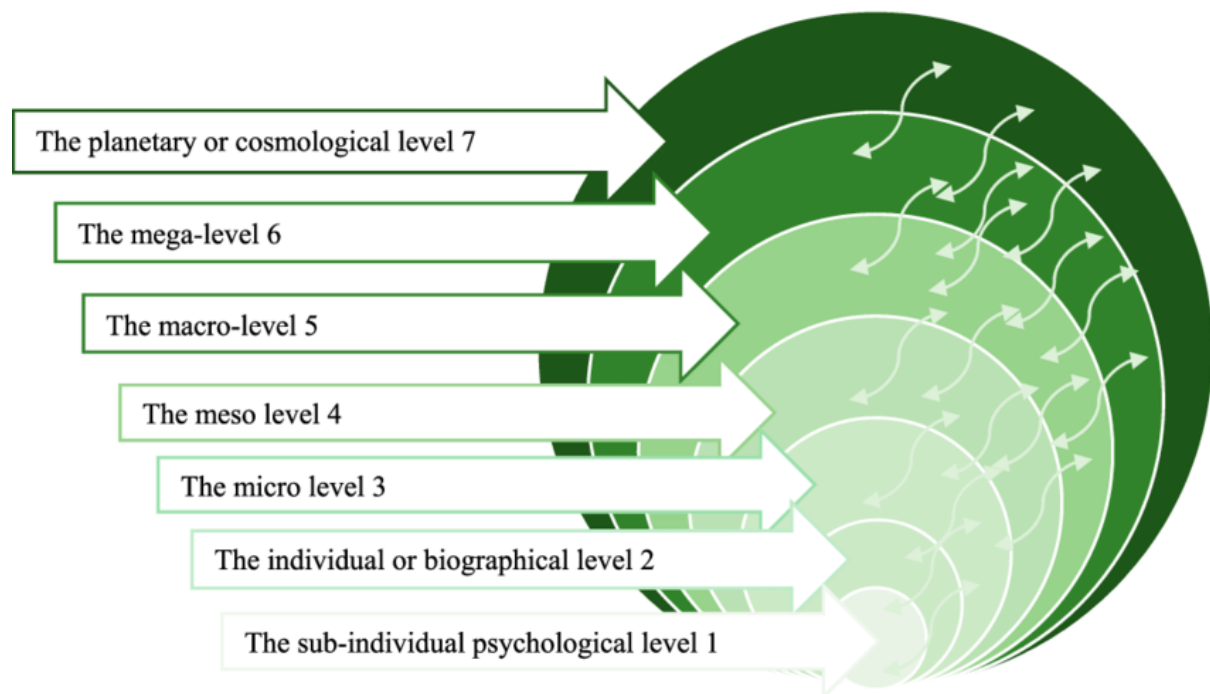
Note. Reprinted from 'Mainstreaming education for sustainable development' (p. 106) by Agbedahin & Lotz-Sisitka (2019) in the *Journal of Critical Realism, 18*(2).

https://doi.org/10.1080/14767430.2019.1602975

The seven scales of the laminated system as illustrated in Figure 6 are described below (Agbedahin & Lotz-Sisitka, 2019).

1. The sub-individual psychological level is concerned with the intrinsic personality of the individual under study.

2. The individual refers to the person under study.

3. The micro level focuses on the small group or population studied.

4. The meso level refers to relations between functional roles.

5. The macro level is concerned with the functioning of whole societies.

6. The mega level focuses on the analysis of whole traditions and civilisations.

7. The planetary level looks at the planet or cosmos as a whole.

3.6 Conducting Research From a Critical Realism Point of View

A stratified ontological view implies that the social world is complex and that there is a wide variety of mechanisms which could be active in shaping the social world (Bhaskar & Hartwig, 2010). This view enhances our understanding that social phenomena may change over time in response to changing contextual factors, and that they may present in different settings. In the context of the present research study, it is evident from the reviewed literature that substance use treatment barriers present in different settings. It may also be possible that the results of this research will show responsiveness to changing contextual factors. CR, therefore, embraces the subjectivity and context-related nature of social phenomena.

According to Creswell and Creswell (2017), there is a growing use of CR within healthcare research, which includes informing methodological decisions, understanding the causes of health and illness, and exploring ways of improving health. CR has, thus, been applied in healthcare programmes and public health promotion (Creswell & Creswell, 2017; Fletcher, 2017).

Cruikshank (2012) observes that many researchers engaged within the health sector have employed CR to orient their methodological decisions. CR has been argued to represent a philosophical approach to health sciences which is preferable to the strictly empirical emphasis within positivism and the relativist emphasis within constructivism (Cruikshank, 2012).

3.7 Motivation for Using Critical Realism as a Research Paradigm for This Study

CR appeals to many researchers in many different disciplines (Zachariadis et al., 2013). According to Allana and Clark (2018), CR's generative logic and openness to a variety of methodologies make it a viable meta-theory that can be used in quantitative, qualitative, and mixed methods research (MMR). Drawing on the ontological assumptions of CR discussed above, insightful perspectives on epistemological issues, such as causation and validity, have developed (Zachariadis et al., 2013). By paying particular attention to the interplay between qualitative and quantitative tenets in a mixed methods approach, it can be argued that a mixed methods design driven by CR principles will position researchers better to develop more robust meta-inferences.

According to Karadzhov (2021), most research paradigms have not been able to adequately integrate the interaction of different empirical and theoretical levels of influence as well as structural and individual factors on mental health inequalities and treatment barriers. As a result of this explanatory deficit, CR has been proposed as a useful meta-theoretical alternative. Maree (2020) also observes the viability of CR as a meta-theoretical framework for psychological science, and a possible answer to the quantitative–qualitative dichotomy in research.

3.8 Critical Realism and Mixed Methods Research

CR social science research is a multi-methodological approach that provides an interdisciplinary framework for conducting MMR (Iosifides, 2017). In studies on substance

use, CR can be applied based on the presupposition of the importance of both the measurable and non-measurable characteristics of the social world (Iosifides, 2017).

CR simultaneously confronts the central concerns of both the natural and social sciences, and it is an attempt to integrate the quantitative and the qualitative methods', providing an adequate realist philosophy of science and social science (Maree, 2020). CR posits that both quantitative and qualitative designs are justifiable in a methodological pluralism set-up, such as mixed methods, helping to corroborate, refine, or refute plausible explanations of epistemological phenomena (Ryba et al., 2022).

In fields such as education, health, and social sciences there is an increasing use of MMR inspired by CR principles. Critical realists have also approached research using the mixed methods design in several studies on substance use (Ryba et al., 2022).

3.9 Strengths and Weaknesses of Critical Realism

One of the major strengths of CR is that it is compatible with multiple methodologies (Fletcher, 2017). CR's commitment to an ontology that appreciates complexity, provides fertile ground to develop relevant and stratified views of reality (Creswell & Creswell, 2017; Fletcher, 2017).

CR is a meta-theory that is adaptable and can be applied to interdisciplinary approaches, and it is a theory that facilitates an understanding of complex situations and provides a strong meta-framework for problem-solving (Allana & Clark, 2018). These aspects are particularly important in the present research context in that CR thinking facilitates the solving of complex problems related to SUD, which is characterised by rapidly changing social and cultural dynamics (Allen et al., 2013).

CR is, however, subject to a number of criticisms. Firstly, CR adopts several aspects concurrently used in general systems theory (Bakewell, 2010). However, essentially, these

aspects alone cannot adequately explain how different components in a system relate to one another.

Another restrictive factor in the application of critical realist ideas has been the use of jargon and specialist language that have a limiting effect on CR's use (McLachlan & Garcia, 2015). Terms such as 'causation, and implicit and explicit ontologies' connote a restrictive element of application (Archer, 2016)

In the third place, CR cannot completely escape value-laden assumptions about objectivity – inevitably, even in the natural sciences, assumptions are made in regard to epistemic premises that are, themselves, based on presumptions (Sousa, 2010).

In conclusion, one can argue that the multiplicity of mechanisms offered by the critical realist paradigm in an open-system world encourages the study of social phenomena from various perspectives and strata. Instead of taking a reductionist stance by reducing phenomena to sub-components, CR encourages the study of social phenomena in a more interdisciplinary manner (Armstrong, 2019). The axiological value and principles guiding the present research study were intended to create a body of knowledge that could be applied to identify interventions and solutions to address the existing challenge of harmful substance use in society.

3.10 Expanded Frameworks

One such theoretical framework is the ABM (Andersen, 1995), which was also used in the present research as a conceptual framework to describe the multiple factors that influence utilisation of healthcare services and explore opportunities and strategies for interventions. The present research also made use of the ABM (Andersen, 1995) as a conceptual framework. Imenda (2014, p. 189) suggests that a conceptual framework is important in enhancing the empiricism of research by giving a picture of how the research problem will be explored through an 'inductive process whereby concepts are joined together

to build a bigger map of possible relationships'. Bronfenbrenner's SEM of the 1970s is also useful in developing a conceptual model that informs the design of substance use intervention strategies (Lee, 2011). Based on the usefulness of ABM and SEM as conceptual frameworks, the present research study analysed its findings through the lens of the ABM nested within the SEM.

3.10.1 Andersen's Behavioural Model

In this study, ABM was used as a predictive and explanatory framework for substance use healthcare services utilisation. This model was originally developed in the 1960s, and has since evolved through many stages (Andersen, 1995). In its formative years, the model focused on the family as the primary unit of analysis, but because of the difficulties involved in developing measures at the family level owing to the heterogeneity of family members, the model shifted to the individual as the unit of analysis (Andersen, 1995). According to Andersen (1995), the expanded version of the behavioural model is an augmentation of the original version and is aimed at understanding how and why people use healthcare services, assess inequality to access, and support the formulation of policies that aid equitable access.

Figure 7 is an illustration of an updated version of the ABM.

Figure 7

Andersen's Behavioural Model of 1995
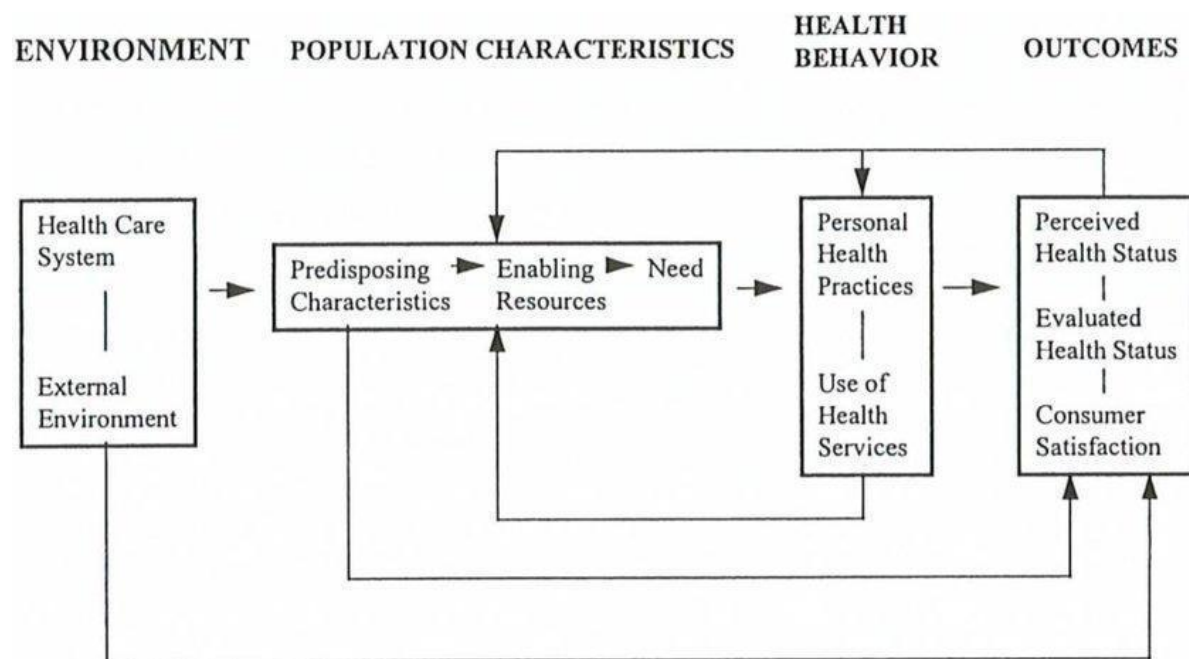
Note. Reprinted from 'Revisiting the behavioural model and access to medical care: Does it matter?' (p. 8) by Andersen (1995) in *Journal of Health and Social Behaviour*, *36*(1). https://doi.org/10.2307/2137284

The updated version of the ABM, which incorporates the individual as the unit of analysis, has been used widely as an explanatory framework in healthcare utilisation studies (Babitsch et al., 2012), including substance use studies. Tesfaye et al. (2018) explain that the ABM in healthcare utilisation focuses on an interplay of environmental characteristics and population characteristics, including predisposing factors, enabling/restricting factors, and need factors in determining healthcare utilisation and health status.

The diagrammatic representation of the ABM in Figure 7 shows how environmental factors, such as the external environment and health system, can interact with population characteristics, determining the population's use of healthcare services (Babitsch et al., 2012; Tesfaye et al., 2018). One could argue that negative support from environmental

characteristics causes patients to under-utilise health services and, consequently, a deterioration in health status/outcomes. The various elements of the ABM are discussed next.

3.10.1.1 The Elements of the ABM. As discussed in Chapter 2 of the present research, the *environmental characteristics* relate to structural factors such as the availability of healthcare centres, healthcare workers, the functioning of the healthcare delivery system in general, support systems, financial costs, and the legal frameworks on drug use (Burns et al., 2016; Tesfaye et al., 2018).

In the context of ABM, *population characteristics* refer to predisposing characteristics, enabling resources, and need factors.

The *predisposing factors* are the psychosocial characteristics of individuals, demographics, and specialised variables that reflect vulnerability (Babitsch et al., 2012). Among others, these include age, gender, education, race, and marital status. These factors are purported to influence decision-making and planned behaviour according to the theory of planned behaviour (Babitsch et al., 2012; E. Guerrero & Andrews, 2011). These characteristics can be organised in four domains, namely, knowledge, attitudes, social norms, and perceived control (Bradley et al., 2002; Netshiswinzhe et al., 2021). These factors have a significant impact on treatment-seeking behaviour among people living with substance use disorders. For instance, as discussed in Chapter 2, women and young people (gender and age) are less likely to seek treatment for substance use-related problems.

The *enabling variables* are the logistical aspects of obtaining care, and these can be personal/family, community, genetic or psychological characteristics (Cudjoe, 2019). They also relate to the availability of community and individual-level resources required to access care (Cudjoe, 2019). Examples of enabling factors include income, medical insurance, and availability of staff, support, and facilities (Babitsch et al., 2012; Cudjoe, 2019; McCann et

al., 2016). Income (affordability of treatment), for example, has been found to influence decisions to seek treatment (McCann et al., 2016).

The *need variables* constitute the most immediate factor that determines the use of healthcare services (Blanco et al., 2015; Moeller et al., 2020). Need variables can be divided into perceived or evaluated needs. Perceived needs relate to how individuals view their own health and functional state, and this view will determine individuals' care-seeking and adherence to a treatment plan (Andersen, 1995). Evaluated needs refer to the professional judgement about an individual's health status and need for medical care, and this judgement explains the amount of treatment or care provided to patients presenting themselves for treatment (Andersen, 1995; Blanco et al., 2015).

Health behaviour generally refers to actions, habits, or behavioural patterns that may influence an individual's decision relating to health maintenance, restoration, and improvement (Short & Mollborn, 2015). There are a wide range of behavioural patterns covered by this definition, and these include sexual behaviours, substance use, medication adherence, physician visits, vaccination, and treatment (Short & Mollborn, 2015). As indicated in Figure 7, health behaviour is illustrative of personal health practices and use of health services (Gardner, 2015). In the context of the present research, health behaviours relate to substance use and action to seek help or treatment.

Although self-report measures underpin the vast majority of research to measure health behaviours, concerns about their reliability and validity have been raised (Conner & Norman, 2017; Rhodes et al., 2017). According to Rhodes et al. (2017), there is also a low correlation between self-reported and objectively measured health behaviours. For instance, in the context of substance use, objective measures and self-report measures are likely to capture different combinations of dimensions such as frequency, intensity and time (Conner & Norman, 2017).

Outcomes are the measures of change in the health status of an individual or a group that is attributable to an intervention can be referred to as a health outcome (Shi et al., 2016). Change needs to be measured before and after the implementation of the intervention. Ideally, a test that is both valid and responsive enough to accurately measure the impact of an intervention should be used (Shi et al., 2016).

Measures of change can be based on self-reports/perceived health status, or they can be based on clinical procedures such as laboratory tests or physical examination/evaluated health status (Li et al., 2020). In the context of SUDs, it needs to be highlighted that some health outcomes need complex assessments since these outcomes are prone to changes depending on the measurement scales and professional practice guidelines used (Li et al., 2020). For example, as outlined in earlier sections, the definition and the assessment of SUDs have changed over time, as demonstrated by the differences between the DSM-4 and the DSM-5.

Consumer/patient satisfaction is an important measure of the quality of service. (Farzianpour et al., 2015). Patient satisfaction tends to be high when the service is timely, efficient, and patient-centred.

3.10.1.2 Evaluating Andersen's Behavioural Model. The ABM has been lauded for creating a platform to advance policy based on the model's predictive and explanatory power for healthcare service use (Andersen, 1995; Babitsch et al., 2012; Tesfaye et al., 2018). To a certain extent, one can argue that the model is able to demonstrate its predictive and explanatory capabilities with regard to healthcare services utilisation (Mbalinda et al., 2020). For example, the model is able to show that substance use healthcare services utilisation can be influenced by environmental and health system factors (e.g. proximity to a help centre), predisposing factors (e.g. gender and age), enabling factors (e.g. knowledge about where to get help), and need factors (e.g. perceived need for treatment) (Blanco et al., 2015; Moeller et

al., 2020). These factors such as knowledge about where to get help, proximity to a help centre, then, enables the individual to use health services and anticipate outcomes such as improved health status.

The ABM has enabled scientists and public health practitioners to assess measures of access such as equitability, effectiveness, and efficiency (Travers et al., 2020). However, this model is subject to some criticism.

A drawback of the ABM is that, although it provides a framework of factors that influence health services utilisation, it seems to be difficult to identify the factor with the strongest influence (Moeller et al., 2020; Travers et al., 2020). Even with the use of complex statistical testing of multivariate models, findings have shown inconsistencies in the strength and direction of association of these factors in the context of health services utilisation (Travers et al., 2020). Due to the fact that the correlations between examined variables cannot be adequately examined, the explanatory power of the results is limited (Travers et al., 2020). Hence, some suggestions for the use of complex statistical methods, such as path analysis, that reflect on the model's complexity have been suggested (Travers et al., 2020).

The model also does not give an adequate explanation of cognitive inabilities as a potential explanation of why some people with health problems do not seek treatment (Mintzberg, 2017). It may be possible that a person with some cognitive deficiencies or a person who believes that healthcare is not necessary, may fail to realise the need for treatment (Mintzberg, 2017). The model seems to overlook the importance of such personal factors as potential deterrents to help-seeking behaviour and treatment.

3.10.2 The Socio-ecological Model

Bronfenbrenner's SEM acknowledges personal and environmental influences on health service utilisation behaviour, and these are shaped at five hierarchical levels that include the individual (microsystem), interpersonal (mesosystem), community (exosystem),

organisational, public policy (macrosystem) and the chronosystem levels (Mutahi et al., 2022; Ngwenya et al., 2020). The chronosystem is a reflection of how the ecological levels interact and influence each other over time. As applied to health, the SEM highlights that health behaviour is influenced by the interaction that occurs between the characteristics of the individual, the community, and also the environment (Nazaryan & Karapetyan, 2021). The environment encompasses the physical, social, and political environments.

3.10.2.1 Hierarchical Levels of Bronfenbrenner's Socio-ecological Model. Bronfenbrenner's SEM relates to CR's seven scalar laminated ontological system (see Figure 6) thereby allowing for a wider analysis of the social world as a multi-tiered stratified reality. The seven scalar laminated ontological system also links with the SEM in that both perspectives present explanatory mechanisms to be studied across several levels of reality. Using Bronfenbrenner's SEM, Mutahi et al. (2022) and Partelow et al. (2018) explain the microsystem, mesosystem, exosystem, macrosystem, and chronosystem as described below.

The *microsystem* is the individual's most immediate environment characterised by interpersonal relations. At this level, personal attitudes and beliefs about services are important fundamental determinants to adopt a certain behaviour such as help-seeking (Ngwenya et al., 2020). For example, if individuals believe that they will get appropriate healthcare from a service provider and attain better health outcomes by seeking treatment from a healthcare service provider, there is an increased likelihood that they will seek treatment.

The *mesosystem* can be defined as the interrelations between two or more microsystems to which the individual belongs (Ngwenya et al., 2020). The pattern of activities and interactions in one microsystem has a bearing on the interactions in the other microsystem. Examples of microsystems that have an interrelationship are the neighbourhood, workplace, and home/family.

At this level, there are different factors that aid or preclude help-seeking behaviour in the SUD context (Mutahi et al., 2022). How these groups, such as peers, family, and workmates, interact with the individual who uses substances will significantly determine whether the individual will seek help or not (Mutahi et al., 2022; Ngwenya et al., 2020). Supportive and nurturing interactions with peers, family, or friends at this level are likely to heighten the chances of help-seeking behaviour and treatment whereas unsupportive interactions will reduce the likelihood of help-seeking behaviour (Ngwenya et al., 2020).

Peers and family are proximate examples that can have a significant impact on whether an individual seeks help or not. Peer pressure may compel individuals to conform to certain group attributes and to be discouraged from taking action that will disidentify them with the group (Nazaryan & Karapetyan, 2021). Alternatively, a supportive family may encourage a family member who uses substances to seek treatment in order to overcome a drug use problem (Nazaryan & Karapetyan, 2021; Ngwenya et al., 2020).

The *exosystem* is characteristically made up of two or more settings, in which one of the settings does not contain the individual (Rosa & Tudge, 2013). The pattern of activities in the settings of which individuals do not form a part may have a significant influence on the individuals' activities in the settings where they belong. For example, organisations may run media campaigns on substance use (e.g. on television and other media outlets) of which individuals are not directly a part, yet, these can have a significant impact on individuals' attitude in settings where they have a direct part (Rosa & Tudge, 2013). These attitudes can be a towards a family member at home or towards a colleague in the workplace.

The *macrosystem* relates to the community level and includes the social, cultural, and political spheres, and how they impact on the activities in the other settings/levels (Ngwenya et al., 2020; Rosa & Tudge, 2013). These factors can act to aid or impede healthcare services utilisation. For example, Muslim cultural beliefs and values make substance use a taboo;

hence there is limited disclosure about substance use in the family and workplace settings, and the problem continues unabated. As a result, individuals living with SUDs may not detect the problem or may find it difficult to seek help.

On a policy level, limited resources are being channelled towards mental health, resulting in this sector being inadequately serviced. For example, Atilola (2015) highlights that only 5% of South Africa's health budget is channelled towards mental health. There is a need for a shift in policy relating to practices that promote mental health services.

In the South African context and the greater part of the African continent, it appears that the strong 'culture' of substance use has been normalised across several ethnic groups (Chetty, 2017; Ferreira-Borges et al., 2017; Unger, 2012). Hence, there could be a lack of realisation and perception of substance use as a potential problem that may require intervention. Alcohol consumption has been found to be at the centre of social and cultural activities in several countries, including South Africa, yet its negative consequences in society and contribution to the burden of disease are rarely questioned (Ferreira-Borges et al., 2017). For example, traditional gatherings and rituals are often performed for the appeasement of ancestors, for rain-making, and for protection and prosperity purposes, and these functions are characteristically marked by several days of alcohol consumption (Ferreira-Borges et al., 2017). One could, therefore, argue that even at societal level, there is some element of condonation of substance use, especially of culturally approved substances, such as alcohol and cannabis, and little relevance or realisation of substance use as a potential health hazard.

The *chronosystem* highlights the influence of internal and external elements of time as well as historical content (Ngwenya et al., 2020; Rosa & Tudge, 2013). In the light of the expected rise in harmful substance use and the substance use-attributable burden of disease in South Africa and the continent as a whole, there seems to be very little action from

policymakers and a lack of pressure from the population in general to prevent or to rectify the problem (Ferreira-Borges et al., 2017). Over the years, policymakers appear to have demonstrated subdued willpower to regulate alcohol availability, outlet licencing, and stamping out illicit production (Mosher & Akins, 2020). As a result, there could be limited awareness of the dangers posed by harmful substance use, and the greater part of the substance-using population could be unaware that they have an SUD. This lack of awareness could be one of the reasons why utilisation of healthcare services is low.

In the present research, the SEM provides a useful framework for understanding help-seeking and non-help-seeking behaviour among individuals living with SUDs such as opioid use disorder. The interaction of different socio-ecological factors that play a role in the opioid crisis that is currently experienced is illustrated in the framework depicted in Figure 8.

Figure 8

Socio-ecological Framework of the Opioid Crisis
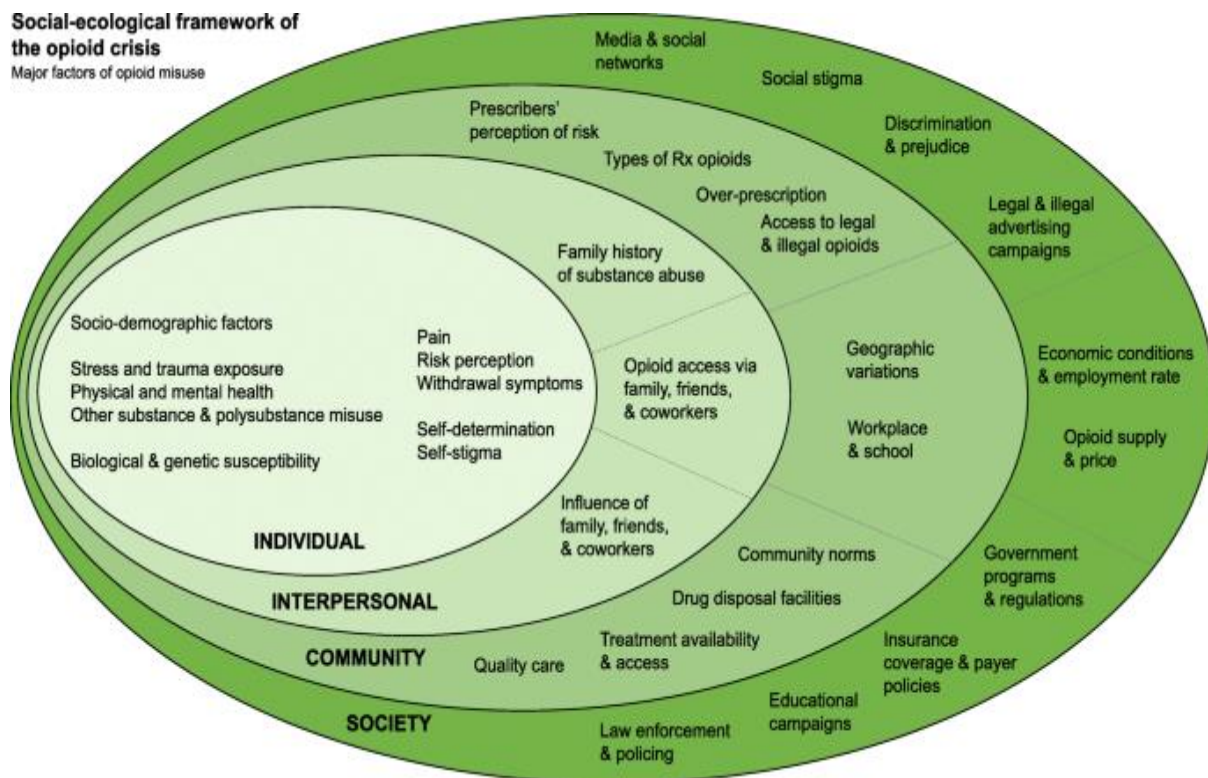
Note. Reprinted from 'The opioid crisis: A contextual, social-ecological framework' (p. 2) by Jalali et al. (2020) in *Health Research Policy and Systems, 18*(1).

https://doi.org/10.1186/s12961-020-00596-8

The framework presented in Figure 8 confirms reports in the literature on how different examples of elements in the various systems of the SEM influence help-seeking among individuals (Jalali et al., 2020; Rosa & Tudge, 2013). Researchers have also discussed how law enforcement and policing (i.e., the macrosystem), treatment availability and access (i.e., the mesosystem), and influence of family, friends, and co-workers (i.e., the microsystem) all work together to either facilitate or impede help-seeking behaviour among people using substances (Beckett, 2016; Khampang et al., 2015; Posselt et al., 2017).

The SEM is helpful in conceptualising barriers to care where the interaction between environmental factors and individual behaviour is described in terms of an eco-systems

perspective (Partelow et al., 2018). In SEM, factors from various ecological levels are used to explain behaviour.

The SEM is arguably the most comprehensive conceptual framework for explaining interactions and outcomes relating to socio-ecological systems (Mutahi et al., 2022; Partelow et al., 2018). Demonstrating its adaptability, the model has been used widely in different health promotion programmes. It takes into consideration the complex role and influence of context (Partelow et al., 2018) in analysing the development of health challenges as well as the resulting success or failure to solve health challenges. The SEM has an integrative approach that focuses not only on individual health behaviours, but also on modifying the physical and social environments (Mutahi et al., 2022).

The model embraces diversity in that it recognises individual differences. Further, the model's rejection of a one-size-fits-all approach means that, when the model is applied to healthcare services utilisation, it acknowledges individual differences and the impact of context in designing and implementing intervention programmes.

The SEM has been credited for being holistic rather than reductionist in approach. It provides a research framework that takes a comprehensive look at the influence of the environment – broadly, inclusively, and as a whole (Michael & Madon, 2017). This approach has been adopted by many scientists in different fields. Considering the complexities of substance use treatment barriers, the holistic approach provides one with the insight to factor in a wide-ranging interplay between individual and environmental characteristics.

3.10.2.2 Criticism of the Socio-ecological Model. Despite its significant contributions in many disciplines, the model has been criticised for being empirically difficult to test and for requiring an extensive scope of ecological detail when applied as an explanatory model (Stojanovic et al., 2016). It has also been argued that it is difficult to empirically evaluate all its components (Stojanovic et al., 2016). The implementability of the

SEM has also been criticised by virtue of the model being rooted in systems thinking, according to which all factors, including the ones with minimal influence, need to be considered and understood as part of the whole system of influence (Michael & Madon, 2017). This may make it difficult to implement in practice.

3.11 Implementing Multiple Frameworks in this Research

In attempting to attain the overarching aim of contributing towards generating greater awareness and understanding of SUDs and barriers to seeking treatment, the present research used the SEM and ABM to analyse and interpret the structural and attitudinal barriers that caused a gap in the treatment of people using substances. The inclusion of these frameworks gave an insight into the need to conceptualise the factors that influenced help-seeking and/or treatment behaviour from the viewpoint that the social world is a multi-tiered stratified reality and should be analysed and interpreted at multiple levels. The SEM and ABM can be respectively relatable to the environmental and individual factors highlighted by the ABM and can also be found to be nested in various systems/levels of Bronfenbrenner's SEM.

Essentially, the ABM seeks to answer the 'how' and why' questions of healthcare services use and of the various environmental factors that become structural barriers (Andersen, 1995). Adopting the approach that the path of influence is linear, the ABM proposes that the environmental factors interact with the attitudinal characteristics in a linear pathway that may determine health behaviour and outcomes (Babitsch et al., 2012).

The ABM's framework of analysis seeks to define, examine, and measure equitable access to healthcare with a view to develop policies that promote equitable access to healthcare services (Andersen, 1995; Babitsch et al., 2012). Research has revealed the existence of disparities and inequitable access to healthcare services along the lines of factors such as gender, among others (S. Choi et al., 2015). Conceptualising these disparities using

the ABM helps to create some insights into policy formulation to address inequitable access to substance use healthcare services utilisation.

In the present research, the SEM was used to examine the interactive processes between the individual and environmental characteristics found at different levels. The SEM considers the multiple levels of influence on human behaviour at individual, interpersonal, organisational, community, and public policy levels (Langille & Rodgers, 2010).

In the context of substance use, healthcare services utilisation becomes a function of the interplay between the individual and the various components of the socio-ecological system (Langille & Rodgers, 2010). For example, due to the negative labelling/perceived stigma of SUD in the community (i.e. the macrosystem), individuals using substances may anticipate rejection by their family and friends (i.e. the microsystem). Individuals using substances may then develop doubts as to whether they will receive unprejudiced or appropriate healthcare from treatment centres (i.e. the exosystem). A change in the environment through community (exosystem) and awareness programmes to destigmatise SUD may lead to a change in attitude of the individual and family (microsystem) towards treatment-seeking.

3.12 Conclusion

The ABM and SEM are complementary explanatory frameworks describing the interplay between individual characteristics and environmental factors that have a significant influence on human behaviour (Mbalinda et al., 2020; Partelow et al., 2018). The principle underpinning both models is that behaviour is shaped by individual and environmental characteristics. As Visser (2007) describes, behaviour does not occur in a social vacuum, which implies that changes in human behaviour may occur as a response to changing patterns of the social and organisational relationships or the physical environment. These models can be used to explain how barriers to treatment vary across different socio-demographic and

cultural contexts, and how changes in the social, physical, and political environments can change attitudes and behaviour (Mbalinda et al., 2020; Partelow et al., 2018). The SEM is influenced by systems thinking; it presents a concentric pattern highlighting dynamics of overlapping causality (Partelow et al., 2018). It also displays how complex systems consist of many parts that make up a whole, which explains why the whole cannot be understood without looking at how the component parts interact. Contrastingly, ABM has a more linear approach. It argues that environmental factors interact with individual characteristics, an interaction which in turn impacts on health behaviour that ultimately determines health outcomes (Babitsch et al., 2012; Mbalinda et al., 2020). However, despite ostensible differences, the two models hold relevance in discussing how structures and different systems in society may interact with the individual to promote or impede healthcare services utilisation. The present research embraced the relevance of multiple reality from CR and presented a method of inquiry that was open to a variety of methodologies (MMR). In the context of the present study, the SEM and ABM provided insights into how structures and different systems in society interacted with the individual to promote or impede health-care services utilisation. Importantly, these two models guided the study's analysis and interpretation of the data obtained.

Chapter 4: Research Methodology

Chapter 4 presents a discussion of the aims of the current research, the methods used, and the motivation for using these methods. Additionally, this chapter discusses the study's sampling techniques, data collection, and data analysis methods in relation to the research questions and objectives. In combining sequential exploratory and sequential explanatory designs in a single mixed methods study, the researcher aimed to enhance the validity, thoroughness and exhaustiveness of the research.

4.1 Aim of the Study

The overarching aim of the research was to contribute towards generating greater awareness and understanding of SUDs and barriers to treatment-seeking. Such awareness and understanding would enable the researcher to develop evidence-informed intervention strategies that could help in overcoming barriers to treatment and enabling people with SUDs to adopt help-seeking behaviour. Specific objectives will be outlined as part of the phases of the research.

4.2 Mixed Methods

Migiro and Magangi (2011) describe mixed methods research (MMR) as a methodology for conducting research that involves the collection, analysis, and integration of qualitative and quantitative research data in a single study.

MMR is an emergent methodology developed from a long history of combining methods through a process of triangulation (Timans et al., 2019). This type of research has been widely endorsed as a comparatively useful research approach due to the perceived completeness it offers in data collection and analysis (McKim, 2017). Evidence shows that there has been a significant increase in the number of publications containing the words 'mixed methods' in their title or abstract, especially after 2006 (Timans et al., 2019). Additionally, there has been a hundredfold increase in the number of dissertations and theses

that used these words in their abstracts (Vors & Bourcier, 2022). In MMR, the researcher uses at least one quantitative and one qualitative method in a way that can potentially optimise the strengths and minimise the weaknesses of each method used (McCrudden et al., 2019; Terrell, 2012). For example, survey data can be collected in a relatively short time frame from a large pool of participants (potential strength) but may not give sufficient insights into reasons underlying individuals' responses (potential weakness) (McCrudden et al., 2019). On the other hand, interviews can be conducted with a relatively small sample of participants where the researcher is able to extract in-depth descriptions about a phenomenon of interest (potential strength). However, interviews have the disadvantages that the data collection and analysis can be time-intensive and that a relatively small number of participants are involved (potential weakness) (McCrudden et al., 2019; Terrell, 2012). Thus, in essence, the motivation for using MMR is to triangulate the data sets and offset potential limitations or biases that are inherent in each single approach (Creamer, 2018).

4.2.1 Evolution of Mixed Methods Research

As a means to seek and establish convergence across qualitative and quantitative methods within social sciences research, Jick (1979) pioneered the concept of mixing these methods (Creswell & Creswell, 2017). MMR evolved from the realisation that the challenges of implementing evidence-based treatments, innovative practices, and programmes are so complex that a single methodological approach is often inadequate (Palinkas et al., 2015). Pure subjectivity and objectivity are mere theoretical concepts that, when applied in research, tend to become obfuscated in experiential practice (McLear, 2015). MMR approach formally embraces knowledge that is both context-specific and generalisable. (Brierley, 2017).

4.2.2 Critical Realism and Mixed Methods

Compared to pragmatism, critical realism (CR) offers a more epistemologically robust and ontologically grounded alternative for integrating qualitative and quantitative methods through retroductive theorising (Mukumbang, 2021). Retroductive theorising explicates a two-way interaction process between mixed methods data and social theory in a pluralistic inferencing approach that is needed to explore broad, complex, and multi-faceted areas in social sciences, such as substance use (Mukumbang, 2021). Essentially, one can argue that retroduction seeks to theorise and test for hidden causal mechanisms. The core ontological assumptions of CR discussed in Chapter 3 provide insight into some of the key epistemological issues, such as causation and validity, which shape our logic of inference in the research process through retroduction (Zachariadis et al., 2013). As discussed in Chapter 3, the methodological implications of CR can also guide the dynamic MMR design in social sciences (Zachariadis et al., 2013).

4.2.3 Exploratory and Explanatory Models in Mixed Methods Research

MMR commonly uses sequential and concurrent designs (Terrell, 2012). Sequential designs are linear in approach, implying that data collection and the analysis of one set of data (e.g. quantitative data) are followed by the analysis of a different set of data (e.g. qualitative data) (Warfa, 2016). The present research adopted a mixed methods sequential design. In such a design, the quantitative and qualitative methods are administered sequentially (Lochmiller, 2018). There are principally two types of sequential sub-designs, namely, exploratory and explanatory designs (Warfa, 2016). Both the exploratory and explanatory sub-designs were implemented in the present research.

4.2.4 Rationale for Using Mixed Methods Research

MMR is increasingly being used in the public health and social sciences disciplines (Stoecker & Avila, 2021). Several scholars contend that MMR can be particularly useful in

healthcare research, as only a broader range of perspectives can do justice to the complexity of the phenomena studied (Doyle, 2009; Stoecker & Avila, 2021). According to Doyle (2009), MMR offers healthcare researchers an opportunity to use such a dynamic approach to address the complex and multi-faceted research problems often encountered in the healthcare sector. Using MMR, one is able to highlight the similarities and differences between particular aspects of a phenomenon (Stoecker & Avila, 2021).

In the present research context, the similarities and differences between the quantitative and qualitative findings are explored. The interest in and the use of an MMR design have mostly been fuelled by pragmatic issues: the increasing demand for cost-effective research, which coincides with a move away from theoretically driven research, and research which meets policymakers' and practitioners' needs (Burch & Heinrich, 2015; Doyle, 2009).

4.2.5 Limitations of Mixed Methods Research

Much of the debate on the usefulness of MMR has centred on the need to create a rigorous framework for designing and interpreting complex data (Östlund et al., 2011). Connecting different kinds of data through the triangulation of different methods is a daunting task, as data derived through different methodologies can be incomparable and incommensurable (Gilad, 2021). Qualitative and quantitative methods are built on philosophical differences in the structure and the confirmation of knowledge content, creating disparities in the epistemological triangulation of different methods (Gilad, 2021). Triangulation often entails integration of theories and/or methods rooted in different philosophical assumptions, but this also raises concerns on ontological and epistemological grounds (Modell, 2009). This often justifies why CR, which embraces the concept of multiple realities, is used as the underlying paradigm in MMR.

4.3 Research Design

The focus of this section is on the framework, set of methods, and procedures employed to collect and analyse data on specified variables for a defined research problem (see Asenahabi, 2019). In this research, components of both the exploratory and explanatory designs featured.

The present research adopted a three-phased sequential MMR approach, starting with focus group discussions (a qualitative component to explore barriers to help-seeking in the community) in order to adapt the study's questionnaire to ensure the contextual relevance of the exploratory design. The qualitative data was used to adapt the questionnaire items to focus on relevant barriers. The adapted questionnaire was piloted to examine its feasibility and relevance. Thereafter, the questionnaire was administered using a large sample, signalling the quantitative component of the sequential process. This was followed by qualitative data collection through semi-structured interviews in order to generate an advanced understanding of the results of the quantitative data's explanatory design.

It is important to note that the qualitative phase of the study (FGDs and SSIs) was in accordance with the COREQ qualitative research reporting guidelines. The COREQ guidelines focus on the three domains of research team and reflexivity, study design and theoretical framework, and analysis and findings. A 32-item checklist has been attached (Appendix I) to show how this was achieved.

The flow of the research process is schematically presented in Figure 9.

Figure 9

Schematic Presentation of the Research Study
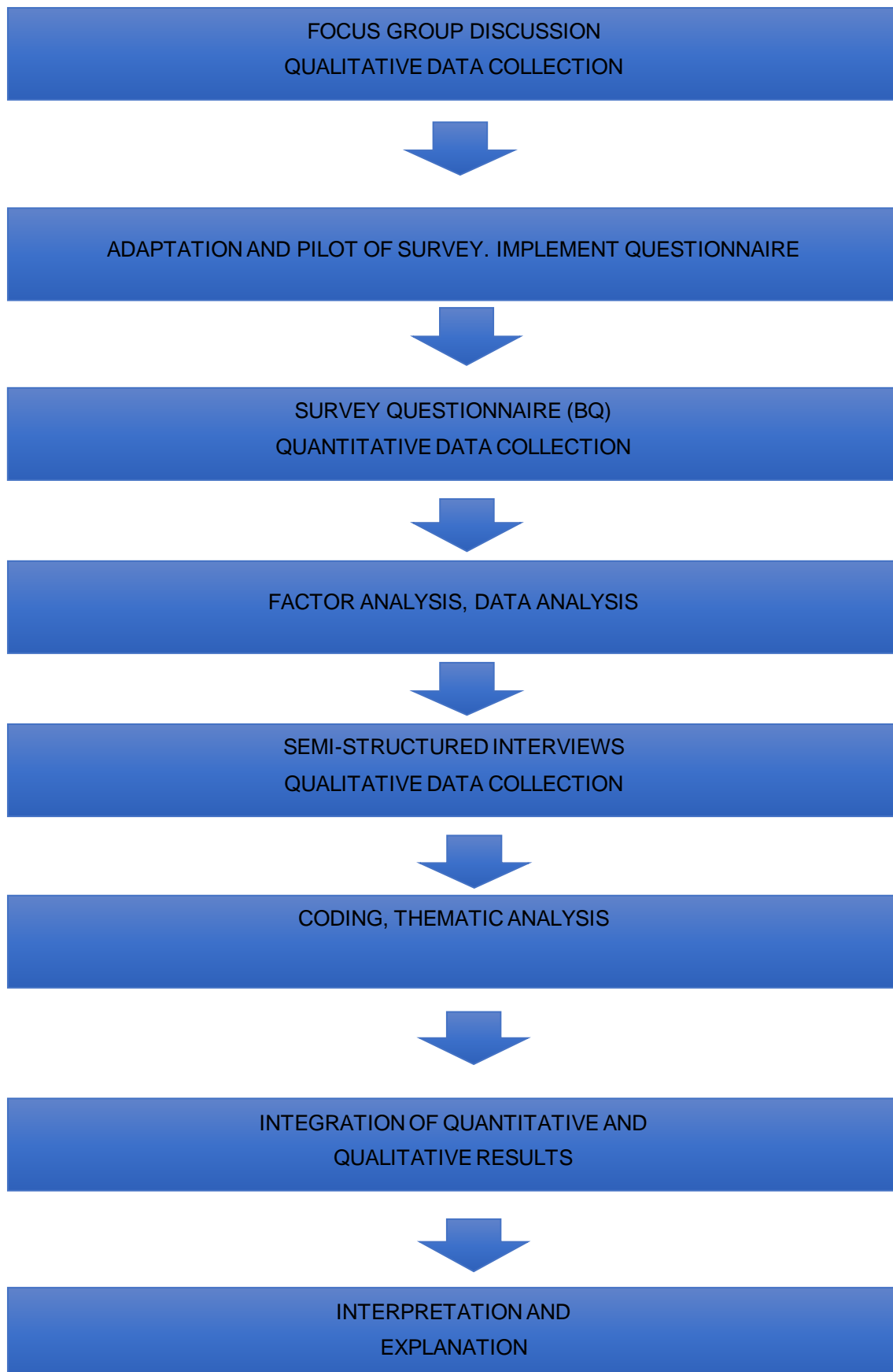
4.3.1 Sequential Exploratory Design Explained

The MMR design employed involved the collection and analysis of qualitative data followed by the collection and analysis of quantitative data. In this study, holding FGDs represented the qualitative phase, and administering a questionnaire represented the quantitative phase. According to Terrell (2012), the main features of the sequential exploratory strategy are as follows:

1. For the development of instrumentation, a small group can be used to create or adapt the instrumentation to be used in data collection. In the present research, FGDs were held to explore context-specific treatment barriers.

2. The strategy may be used to develop a relevant questionnaire, which was done in the present research to collect quantitative data.

3. In testing elements of a theory, equal priority may be given to data of both phases or to one phase. The data are then integrated during interpretation.

The main strength of the sequential design lies in its straightforwardness, clarity, and the results obtained, and in the advantage it has of carrying over one stage to build on the next phase (Almeida, 2018). The weakness of the strategy is that it can be time-consuming, especially if both phases are given equal priority (Almeida, 2018; Terrell, 2012). A refined schematic representation of the sequential exploratory design is presented in Figure 10.

Figure 10

Sequential Exploratory Design
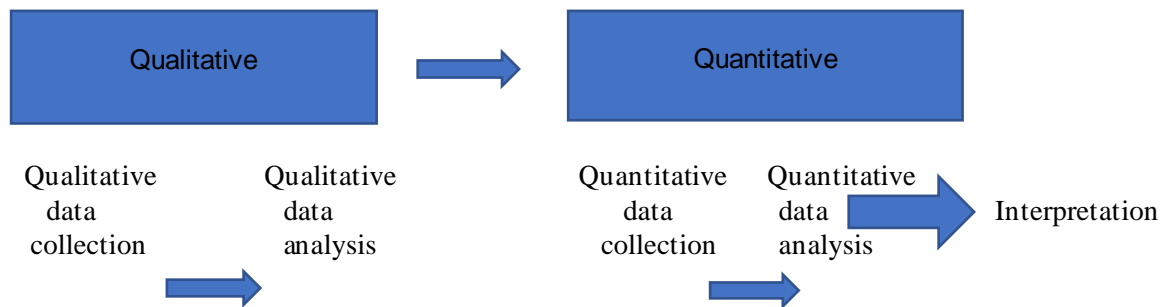
4.3.2 Sequential Explanatory Design as Used in this Research

The sequential explanatory design begins with the collection and analysis of the questionnaire's quantitative data, followed by the collection and analysis of qualitative data obtained through SSIs (Warfa, 2016). The main features of the sequential explanatory design are as follows:

1. Equal priority may be given to both phases, or priority may be given to one phase.

2. The principal aim is to explain quantitative results by exploring certain results in more detail or carving out explanations for unexpected results. In the present study, the SSIs were used to give an in-depth explanation of the results obtained in the questionnaire.

3. The data are integrated during interpretation.

The sequential explanatory design, as used in this research, is illustrated in Figure 11.

Figure 11

Sequential Explanatory Design
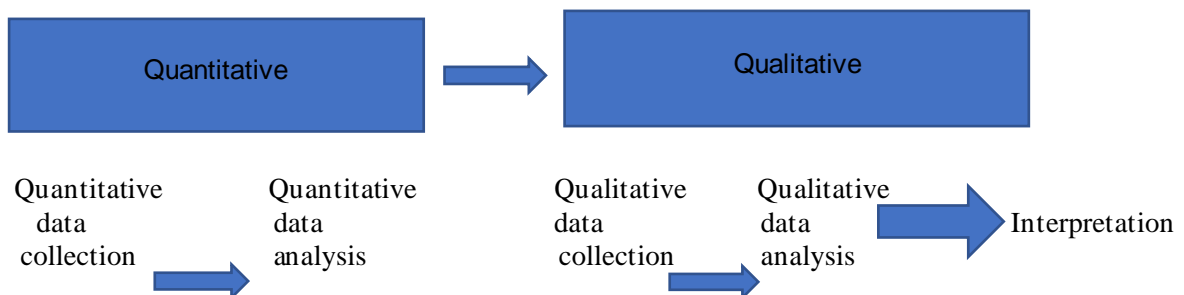
4.4 Research Objectives

The objectives of the study are outlined in terms of the different phases of the research.

The qualitative phase (FGDs) served to

- explore the experiences of people using substances to obtain information on the barriers to help-seeking and treatment that they encountered, and

- be a background for adapting the Barriers Questionnaire (BQ).
  The quantitative phase (questionnaire) served to

- identify and measure the barriers that impeded treatment among young adults living with SUDs,

- examine if demographic variables, namely, gender and race, had a significant impact on how young adults perceived substance use treatment barriers, and

- validate the BQ as an adequate measure of treatment barriers in future research.
  The qualitative phase (SSIs) served to

- obtain a detailed understanding of barriers to treatment among young adults living with SUDs.

4.5 Research Procedure

This section presents details of the research procedure followed. It locates the setting of the research, identifies the sampling techniques, and describes the strategies of data collection, data analysis, and data interpretation. The FGDs, survey, and SSIs are discussed, as well as how they relate to the research questions and research objectives.

4.5.1 Setting

This research covered the various COSUP sites located across Tshwane, South Africa. The COSUP facilities included some urban sites, such as those in the inner city and central

parts of Tshwane, as well as others in the city's peri-urban areas and outskirts. Figure 12 contains a map of the location of the COSUP facilities in Tshwane.

Figure 12

Location of COSUP Sites in Tshwane

Note. The map presented is a reprint from 'International charters on urban conservation: Some thoughts on the principles expressed in current international doctrine' (p. 2) by Jokilehto (2007) in *City Time*, 3(3).

As can be observed from the map (see Figure 12), some COSUP sites, such as Hatfield and Sunnyside, are found in the central part of Tshwane. Further away from the central part of Tshwane, there are urban peripheral sites (Jokilehto, 2007), and to the east there are sites in Eersterust and Mamelodi. In the peripheral south-west, there is the Laudium site. The peripheral sites furthest away from the city centre are Soshanguve and Ga-Rankuwa, which are located in the north-west (Jokilehto, 2007).

The number of clients serviced by each site varies, but the busiest sites appear to be the ones in the inner city, and the ones in the high-density locations. The researcher collaborated with the COSUP staff and received permission to access all the COSUP sites.

4.6 Phases of Data Collection and Analysis

The three data collection phases of the research are discussed separately, and an outline is given of how the data from each phase informed the other phases.

4.6.1 Phase 1: FGDs

FGDs are a guided and interactional activity involving a group of individuals assembled by the researcher to discuss and comment on (based on their experience) a defined topic as a means of generating rich details of complex experiences (Onwuegbuzie et al., 2009). FGDs seek to unravel complex lived experiences by interrogation of actions, beliefs, perceptions, and attitudes in order to generate a more in-depth understanding of the phenomenon under study (Alshenqeeti, 2014). Onwuegbuzie et al. (2009) contend that a focus group is particularly relevant when the existing knowledge on a subject is considered inadequate, or the generation of additional hypotheses is needed before a more relevant and valid questionnaire can be constructed. This relates to the present research in that information on barriers to substance use treatment was considered inadequate, and the imported 50-item BQ had to be adapted to suit the local context (K. E. Green, 2011; Pasche & Myers, 2012).

The researcher acknowledges the 'convenience' of using locally validated tools and questionnaires such as the Stages of Change Readiness and Treatment Eagerness Scale (SOCRATES), in particular the one used by Myers et al. (2010) in Cape Town, South Africa. The researcher considered the SOCRATES questionnaire but decided to adapt the 50-item BQ to suit the present study group which was culturally diverse. One reason for choosing the 50-item BQ was that it clearly measured many of the barriers identified in the literature (K. E. Green, 2011). In order to obtain context-specific rich information and develop a valid

questionnaire, the researcher had to use FGDs to explore treatment barriers issues and gather data with a view to adapting the questionnaire.

In adapting a questionnaire for a culturally different group, it needs to be observed that South Africa has the distinct characteristic of being a multi-cultural and multi-ethnic/racial country (Bezuidenhout, 2019); hence, a tool that is appropriate for use in the Western Cape may not necessarily be appropriate for use in Gauteng.

For example, the SOCRATES questionnaire was used for a different population consisting mostly of coloured participants who could have responded differently than the black participants did in the present study. Generally, there is a bigger population of coloured people than Black Africans in the Western Cape, whereas the reverse is the case in where the present study was conducted Gauteng. In the context of this study where culture and religious beliefs played a significant role as a barrier/facilitator to treatment, the issue of different cultures and traditions was a strong consideration in choosing a research tool.

In line with the aim of achieving the research objectives, the FGDs were conducted to explore the experiences of people using substances to obtain information on the barriers to help-seeking and treatment. FGDs were used to develop an understanding of underlying reasons, opinions, and motivations behind substance use help-seeking and treatment of the youth by encouraging participants to open up and share their lived experiences. It could have been ideal if the present study used, for purposes of comparison, a group of substance-using people who were in treatment, and another group of substance-using people who had not yet accessed treatment. This is what Myers et al. (2010) did in their study.

In the present study, the researcher used clients in treatment because their experience of healthcare services could expose or reveal systemic barriers in the form of challenges relating to treatment registration, initiation, maintenance, completion, or other factors that

could lead to discontinuation of treatment. It is perceived to be difficult for these factors to be noticed and/or revealed by someone who has no experience of treatment services.

On the other hand, peer educators were used as participants, and they represented the views of people who used substances but had not accessed treatment. It can be acknowledged that the peer educators were not a non-treatment, substance-using group, at least in the strictest sense, but that they technically represented the views of substance-using people who had not yet accessed treatment. These peer educators work in the communities with people who have not yet accessed treatment, and they try to motivate them to seek treatment. In the process, they get to understand these people's concerns and their reasons for not seeking treatment. Therefore, in the present study, the peer educators were recruited to take part in the FGDs as they were in a position to report on barriers to treatment.

4.6.1.1 Sampling and Inclusion Criteria. Purposive sampling, also called judgement sampling, was used to sample participants for the FGDs (Etikan et al., 2016). Purposive sampling is a non-probability sampling technique whereby the researcher deliberately sets out to locate potential participants who can and are willing to provide information by virtue of their knowledge or experience (Etikan et al., 2016). Purposive sampling involves the selection of potential study participants that are well-informed about the phenomenon of interest.

The participants in the FGDs consisted of peer educators attached to COSUP at different sites, and they identified and referred people using substances for treatment. Peer educators were deemed suitable to provide relevant information since they directly worked with people using substances who had not yet accessed treatment, and a fair knowledge of the barriers that people using substances experienced, preventing them from seeking help and treatment. The 17 peer educators who participated in the present study were gatekeepers stationed at the various COSUP sites in the community; as such they provided a link between

the community and COSUP. The knowledgeability and experience of the peer educators as participants in the FGDs were important as the FGDs were used to obtain background information for adapting the questionnaire in order for it to be sensitive to the local context.

The criterion for inclusion as participants in the FGDs was that the peer educators had to have worked for the COSUP project for at least six months, which would ensure that they had a sound knowledge of help-seeking behaviour among people living with SUDs in the community. COSUP's peer coordinator telephonically contacted 17 peer educators, inviting them to participate in the study. From these, 15 availed themselves for the study, whereas the other two declined because of time constraints. Of the 15 peer educators, 13 were males (86.7%) and two were females (13.3%). The mean age for the sample was 33.5 years (SD = 3.9, age range = 29–44).

Participants had varied socio-economic backgrounds, but most of them resided in low- and middle-income residential areas such as Mamelodi, Soshanguve, Lusaka, Laudium, Sunnyside, Eersterust, and Daspoort. English was the main medium of communication, with local languages like IsiZulu and Sepedi being sparingly used in code-switching.

4.6.1.2 Data Collection. For the FGDs to be effective, some measures had to be put in place (Yahalom, 2020). The facilitators (the researcher and research assistants) ensured that the venue was quiet, and participants were asked to put their phones on silent or to switch them off to minimise interruptions. The audio-recorder was tested to ensure that it worked properly, with another audio-recorder being made available as a back-up. The participants and the facilitators were seated in a circle in order to create a feeling of equality and oneness.

Prior to conducting the group discussions, participants were given an information sheet and a consent form to sign. They were informed verbally that they would be audio-recorded, and they gave their consent by signing the consent form. The researcher set out some ground rules for the FGDs, which included that there was an emphasis on the

confidentiality of the group discussions and a need to respect everyone's opinions, there was no correct or incorrect answer, and the participants had to give one another the platform to freely air their views without being ridiculed or interrupted. This was done to minimise the effect of implicit–explicit discrepancy bias (Cvencek et al., 2020). This kind of bias occurs among individuals whose self-presentation concerns are high, resulting in their airing ideas and opinions that they believe their audience will want to hear (McKenzie & Carrie, 2018). Such individuals may deliberately alter their explicit views from their implicit beliefs, causing contradictions and discrepancy (Cvencek et al., 2020).

After obtaining the informed consent of all the participants, two sessions of face-to-face FGDs were conducted at COSUP sites, one at Kalafong and one at Bosman Street. The groups consisted of eight and seven participants respectively. With the permission of the participants, the focus group sessions were audio-recorded. In order to maintain participants' anonymity, they were nominally tagged as participant 1, participant 2, participant 3, and so on.

The FGDs were conducted on 23 and 28 October 2020 respectively at the two sites mentioned above. With the aid of two psychology postgraduate research assistants, the researcher used a semi-structured focus group self-prepared guide to lead the discussions, whilst also taking down some notes. In order to obtain candid feedback from the participants, the researcher moderated a free-flowing discussion, not allowing any individual(s) to dominate the discussion. This was done to avoid the 'halo effect' on the topic under discussion (Nicolau et al., 2020).

Where required by participants, the two multilingual research assistants provided translations into the vernacular. The participants responded predominantly in English, and occasionally added a few Setswana and isiZulu sentences. The two research assistants were conversant with all three languages and they would provide translations whenever necessary.

The focus group guide included questions that were used to guide the discussions (see Table 3).

Table 3

Focus Group Guide for the Focus Group Discussions

What were your main reasons for participating in the substance use treatment programme?

What would you personally identify as obstacles to treatment-seeking?

What do you think are the reasons why young adults do not participate in substance use treatment programmes?

What is your opinion on young adults not accessing treatment because of fear of the police?

Do you think there are other useful intervention strategies for substance use disorders? Explain.

What is your view on the usefulness of this treatment programme, especially to young adults?

What would help motivate other young adults using substances to participate in a treatment programme?

4.6.1.3 Field Notes. The researcher adopted a moderator's role in facilitating a purposeful and interactive focus group discussion. Supported by the research assistants, the researcher also made some field notes immediately after the FGDs to gain a more in-depth understanding of the participants' experiences and to refer to these during the data analysis process (Kong et al., 2021). The increase in the prominence in research work of performing secondary analysis and meta-synthesis made the use of field notes a priority, ensuring that a rich context was maintained throughout the research study (Kong et al., 2021).

4.6.1.4 Qualitative Data Analysis of FGDs. Two qualitative research procedures (i.e. FGDs and SSIs) were conducted, and the same method of analysis was used for both. The research assistants transcribed the recorded data verbatim, and they compared their transcriptions to check for accuracy. This was followed by the process of thematic analysis.

Thematic analysis is defined as a method for identifying and analysing patterns of meaning in a dataset (Braun & Clarke, 2019). The steps followed in doing the thematic analysis were to code responses and develop recurring themes. In order to bring out the essence and meaning of the data that respondents provided, the researcher used codes

(without making use of a software program) to assign a descriptive label that allowed the researcher to identify related content across the data. After creating the codes, the researcher put them into a coding frame. The coding frame represented the organisational structure of the themes in the research (Selvi, 2019). A hierarchical coding frame was used for this study to help organise codes based on how they related to one another (Selvi, 2019).

The six steps of thematic analysis included the following: familiarising oneself with the data, assigning preliminary codes, searching for patterns or themes, reviewing the themes, naming the themes, and producing a report (Braun & Clarke, 2019).

Familiarising oneself with the data involved reading the transcripts many times, and this process was followed by assigning preliminary codes. In order to create open codes based on the data itself, the inductive coding technique was used (Braun & Clarke, 2019). A good code is defined as one that is able to capture the qualitative richness of the phenomenon with organised data from which themes can be developed (Moser & Korstjens, 2018).

The codes were then connected to form categories which were clustered under headings/themes that related to the research questions (Araujo et al., 2020; Moser & Korstjens, 2018). It is important to highlight that, although thematic analysis is presented as a linear step-by-step process, in reality it can be iterative in nature (Braun & Clarke, 2019). The inductive coding technique has the advantage of being less susceptible to bias because no predefined sets of codes are used (Moser & Korstjens, 2018). In contrast, a researcher using a deductive approach runs the risk of being biased towards predefined existing themes (Araujo et al., 2020). The research assistants performed an initial phase of doing open coding together in order to increase the methodological rigour and quality of the results, and to ensure that multiple viewpoints were taken into account when discussing and interpreting the data (Braun & Clarke, 2019).

A subsequent phase of doing axial coding and reaching consensus was established. The main difference between open coding and axial coding is that open coding identifies concepts by asking questions about the data, whereas axial coding connects identified categories in open coding, and identifies causal relationships (Miliner, 2020).

The final phase involved doing selective coding in which the researcher selected one central aspect of the data as a core or final category (Miliner, 2020). Although mostly used in grounded theory, selective coding importantly embraces the data collection, open coding, and axial coding processes which are all essential for the inductive coding approach used in the present research (Sofyan et al., 2021).

Therefore, this study leveraged the steps that led to the formation of selective coding, although not all of them were strictly followed. The selection of a core category was arrived at via a step-by-step process of data collection, open coding, and axial coding. This process is illustrated in Figure 13.

Figure 13

Formation of Selective Coding
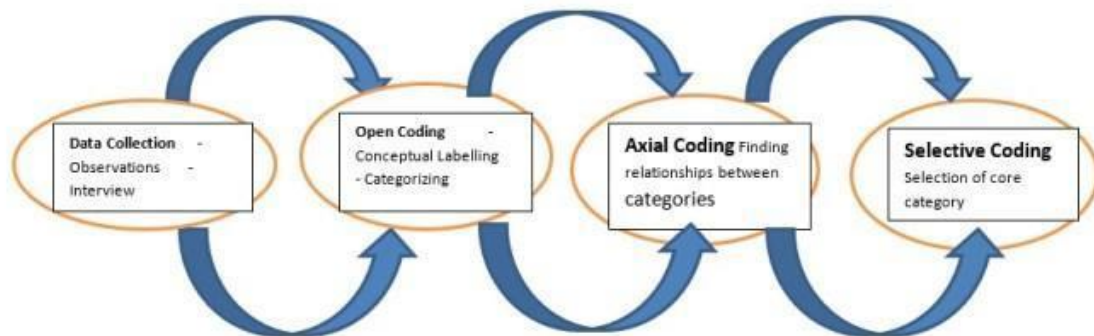
Note. Reprinted from 'Reducing confusion about grounded theory and qualitative content analysis: Similarities and differences' (p. 9) by Cho and Lee (2014) in *Qualitative Report*, 19(32). https://doi.org/10.46743/2160-3715/2014.1028

Further, data coding principles were followed. The principle of inclusion ensured that all responses were exhaustively accounted for in the generated response codes and categories (Milliner, 2020; Sofyan et al., 2021), and the principle of mutual exclusivity controlled that a response belonged to one and only one response category (Miliner, 2020).

The researcher was also conscious of the need to exercise reflexivity in order to make sure that analyses were as impartial as possible (Braun & Clarke, 2021). Reflexivity involves consciously examining and acknowledging one's own preconceptions that one may bring to the research and that may potentially influence the outcome (Kristensen & Ravn, 2015). Journalling reflexivity was critical in navigating the processes of qualitative data collection and analysis (Meyer & Willis, 2019), and it was also important to reconsider previous research encounters in the light of the new field experiences. In accordance with COREQ guidelines, and in the context of the present research, the researcher had no vested interest in

or biases against COSUP, had had no previous encounter with COSUP or its clients, and believed that no interviewer-related biases existed.

4.6.2 Phase 2: Questionnaire

Questionnaires have been used extensively in health and health services research (Kelley et al., 2003). In essence, the questionnaire method can be described as the quantification of systematic observations, and the drawing of inferences about patterns of influence from the data obtained (Weisberg, 2008). The use of a questionnaire involves the systematic selection of a relatively large sample of people from a pre-determined population of interest to complete the questionnaire, followed by data collection from the responses obtained and the analysis of that data in order to make inferences about the wider population (Kelley et al., 2003).

One of the main motivations for using a questionnaire in this study was to overcome the qualitative methods' weaknesses of limited generalisability (Nardi, 2018). Although qualitative methods are able to produce context-rich data, the data can only be generalised to the wider population by using quantitative methods which use much larger samples (Korstjens & Moser, 2017). A questionnaire makes it possible to obtain data that, based on a representative sample, can be generalised to the wider population (Kelley et al., 2003). Face-to-face self-report questionnaires are often preferred to other survey methods to ensure a high response rate (Kelley et al., 2003).

The demographic information about the study sample is presented in Chapter 5. The questionnaire contained an introductory paragraph that explained to the participants that there were many different reasons why people who used substances did not seek help or treatment, that some of these reasons were provided in the questionnaire, and that the participants were required to indicate the extent to which they agreed with each of these statements as reasons why they experienced difficulties/challenges in seeking help and treatment.

4.6.2.1 Sampling and Inclusion/Exclusion Criteria. Young adults who fell in the age range of 18 to 29 years, who lived with SUDs, and who participated in the COSUP project constituted the research population. Potential participants were selected through probability sampling in the form of simple random sampling (Khalid et al., 2012). In simple random sampling, participants from a population are randomly chosen from a sampling frame by applying a 'lottery' method (Khalid et al., 2012). According to this method, a random number is either chosen manually (as in the present research) or by an online computerised number generator. Simple random sampling is preferred to other probability sampling methods, such as systematic random sampling, when little is known about the population (Etikan & Bala, 2017). Using this method, each member of the population is presented with an exactly equal chance of being selected, and it is considered the most straightforward of all the probability sampling techniques (Khalid et al., 2012). Since random sampling was used in the present study, the research conducted on this sample may be considered to have high external validity (Khalid et al., 2012).

To be included in the study, potential participants had to be between 18 and 29 years old at the time of the survey and had to be clients of COSUP.

Sample size was calculated using the survey sample size calculator method with a confidence level of 95% and a margin of error/confidence interval of 5%, according to which a population of 512 yielded a sample size of 220 (Arifin, 2018). Applying the lottery method (which is easy to use), the 220 participants were selected in a way that, once an enumerated number corresponding to a certain participant had been picked, it could not be reselected in subsequent draws (Acharya et al., 2013). The sample obtained for the present study consisted of 21% females and 79% males

The COSUP peer coordinator and the researcher communicated with the site stewards about the intention to conduct the research and about the way the data would be collected.

The potential participants were informed by the site stewards that participation was going to be purely on a voluntary basis, and that no one should feel coerced to take part. From all the potential participants selected and invited to participate, eight declined participation, citing a lack of interest or time constraints as a reason for declining. All other potential participants who were invited agreed to participate in the research. According to Festinger and Dugosh (2012), research on SUDs is generally plagued by low recruitment rates and high attrition owing to a wide range of factors, such as comorbid health, social problems and participants' lack of motivation to follow through with the research. Assisted by the site stewards, the researcher and the peer coordinator were able to assemble the potential participants by name to create a sampling frame. Using the sampling frame, the individuals were enumerated by the researcher. Having deducted the eight young people who had declined to participate plus another six incomplete questionnaires that had to be discarded, the effective sample came to 206 participants whose data could be actively captured for the study.

The self-report questionnaires were administered at the various COSUP sites where the participating patients were receiving their treatment. Courtesy of the Tshwane Department of Health, most of the COSUP sites are operating on already existing community service centres, mostly clinics and hospitals.

4.6.2.2 The BQ. The BQ was developed by the University of New Mexico to specifically enquire from people why they had not previously sought treatment for substance use (K. E. Green, 2011). Through the continued use of the BQ, its items were expanded to 50. This expanded version, which was used in the present research, had been used in various studies (K. E. Green, 2011). One of the reasons for choosing the 50-item BQ was that it clearly measured many of the barriers identified in the literature. Although there are other local instruments, such as the one used by Myers et al. (2010), the expanded BQ was considered suitable for the present study whose sample comprised participants from different

cultures. As the researcher conducted the present study in a context where culture and religious beliefs were considered significant determinants of help-seeking and treatment, the researcher decided to use a questionnaire that was different from other local ones.

The 50-item BQ had not been scaled, and interpretation was therefore at the item level. For the purposes of the present research, this interpretation was useful for qualitative purposes as it allowed the researcher to work within the framework of CR, as discussed earlier. Further, the BQ was freely accessible and could be used without any permission-related limitations.

4.6.3 Adapting the BQ for the Present Study

Apart from the relative usefulness of the 50-item BQ as an instrument to collect data on why people had not sought treatment for substance use thus far, this instrument could also be adapted to the present research to increase its relevance. Themes identified from the FGDs were studied and compared with the items of the BQ to identify overlaps and themes that were not covered in the questionnaire.

In the process of adapting the 50-item questionnaire, some items were added from findings of the FGDs, while redundant items were eliminated. The researcher was cognisant of the fact that items might not be arbitrarily removed or added to a questionnaire, because its validity might be compromised by doing that (C. A. Green et al., 2015). Figure 14 provides an illustration of the steps taken to adapt and implement the questionnaire.

Figure 14

Steps Taken to Adapt and Implement the Questionnaire


```
┌─────────────────────────────────────────────┐
│        50-item Barrier Questionnaire          │
│      and other items from themes in FGDs      │
└─────────────────────────────────────────────┘
                     │        Elimination of items
                     ▼        Face validity
┌─────────────────────────────────────────────┐
│            32-item questionnaire              │
└─────────────────────────────────────────────┘
                     │
                     ▼
┌─────────────────────────────────────────────┐
│                Pilot study                    │
│  (Testing the appropriateness of items to be  │
│                 measured)                     │
└─────────────────────────────────────────────┘
                     │        Refinement of items
                     ▼        in the questionnaire
┌─────────────────────────────────────────────┐
│  Administration of questionnaire to the       │
│              whole sample                     │
└─────────────────────────────────────────────┘
                     │
                     ▼
┌─────────────────────────────────────────────┐
│ EFA (performed as a dimension reduction       │
│              technique)                       │
│              Factor loadings                  │
└─────────────────────────────────────────────┘
                     │        Item reduction (6 items)
                     ▼        Extraction of factors
┌─────────────────────────────────────────────┐
│    Reliability analysis: Cronbach's alpha     │
└─────────────────────────────────────────────┘
```

4.6.3.1 Adaptation to Implementation. The researcher was able to reduce the

original 50-item questionnaire to a 32-item version through various steps. Initially, the

questionnaire was reviewed to assess the likelihood of items being able to measure what they

were intended to measure. The opinions of three experts were obtained in order to assess or to improve the content validity. These experts were senior researchers who had utilised versions of the BQ in various studies. Although the questionnaire had been used in previous studies, albeit in contexts different from those in South Africa, the original instrument could not be used in the South African context without some significant adaptations to the questionnaire (Gjersing et al., 2010). The reasons for the adaptations are provided below.

1. Firstly, some items in the questionnaire would have been inappropriate to use, such as items relating to medical insurance (most participants did not have medical cover because they could not afford it) (Borghi et al., 2009). The treatment/medication at COSUP is provided free of charge. According to Borghi et al. (2009), a study conducted in South Africa, Ghana and Tanzania revealed that owing to the low-income status of most people in African countries, only one-sixth of the population had medical insurance cover. Therefore, in the case of South Africa, it became less important to define having or not having medical insurance cover as a treatment barrier.

2. Secondly, considering that almost all participants were unemployed, with some of them even being homeless, items such as 'I thought my job would be in danger if I went for help' and 'I couldn't get time off from work' were considered irrelevant.

3. The third reason why some items had to be removed from the questionnaire was that the 50-item BQ was not scaled, and interpretation was, therefore, conducted at individual item level. This created potential redundancy as many of the items seemed to be repeated in the questionnaire. For example, it appeared that as many as 13 items (more than 25% of the questionnaire items) addressed a single theme of lack of motivation/lack of perceived need for treatment (refer to items 1, 2, 3, 4, 5, 18, 27, 28, 35, 38, 40, 42, and 48 in the 50-item BQ). Using all these items in order to measure a

single theme would pose the potential risk of promoting redundancy and creating a lengthy questionnaire – a scenario that would frustrate many study respondents (Kamya et al., 2021). It would also pose the risk of multi-collinearity – its usage would result in similar items being monotonously selected to measure the same construct (Kamya et al., 2021).

4. Fourthly, issues related to culture and religion/spirituality that emerged from the FGDs were not covered in the original 50-item BQ. Some of the items to be added to the questionnaire from the themes that emerged from the questionnaire were items 17 ('Our families encourage us to seek help from pastors and religious leaders') and 16 ('Churches provide better services').

Additional statistical considerations to be taken into account were the following:

- Internal consistency methods – Reliability was investigated through internal consistency methods using Cronbach's alpha. Items loading onto the same factor were assessed if all of them measured the same characteristic.

- Structural validity – Exploratory factor analysis was performed in order to determine the dimensionality of the questionnaire using principal components extraction and Varimax rotation.

4.6.3.2 Pilot Study. Although the results from a pilot study are not included in the mainstream data analysis of research studies, Dikko (2016) explains that pilot testing is useful as a method of instrument development. Pilot testing in the present research was essential in order to determine the feasibility and relevance of the questionnaire in the local context. A questionnaire needs to be validated to ensure that it accurately measures what it intends to measure (Dikko, 2016; Kamya et al., 2021). It is important to use a valid questionnaire because it ensures that data of better quality, higher comparability and enhanced credibility are collected.

The researcher pilot-tested the questionnaire on a subset of the sample intended to be used in the actual survey. In this pilot study, the survey was completed by a convenience sample of 12 peer educators from the COSUP project who participated in the FGDs. The questionnaire in the pilot study was administered to small groups in the form of a self-report questionnaire. The major outcome measures in this pilot test were relevance, accuracy, sensitivity, and missing content (Dikko, 2016).

In the pilot study, the researcher observed that there were a few words in the questionnaire that the participants had found difficult to understand. For example, in question 2, the word 'segregate' was perceived to be difficult and it was replaced with the word 'isolate'. In question 21, the words 'long and boring' were added in brackets to further explain the word 'tedium'. On the answering scale, the researcher found the terms 'somewhat important', 'important' and 'very important' quite inappropriate. The researcher then replaced these terms with 'strongly disagree – 0', 'disagree – 1', 'agree – 2', and 'strongly agree – 3'. The participants expressed their satisfaction with the amendments. A 4-point Likert scale ranging from 'strongly disagree, 'somewhat agree', 'agree', and 'strongly agree' was also used as a scoring measure, with corresponding scores of zero to three. A score of zero (strongly disagree) was interpreted as non-significant, whereas a score of three (strongly agree) was regarded as connoting that an item had a significant influence.

Another reason for using a 4-point Likert scale was to avoid the tendency of individuals to opt for the 'safe' neutral opinion found in odd-numbered Likert scales such as the 5- or 7-point Likert scales (Chyung et al., 2017). In an even-numbered Likert scale, also called a 'forced Likert scale', respondents are motivated to form an opinion, rather than selecting a neutral position (Chyung et al., 2017).

4.6.3.3 Administering the Questionnaire. After piloting the survey, the main survey was carried out on the sample of 206 participants between 10 and 19 March 2021. The

questionnaires were administered to participants in small groups at every COSUP site. To administer the questionnaire, the researcher was assisted by the peer coordinator and the site staff at the different COSUP sites. When the questionnaires had been completed, item scores were transformed to a 4-point Likert-type ordinal scale ranging from 0 to 3.

4.6.3.4 Data analysis. Exploratory factor analysis (EFA), using principal component analysis (PCA), was performed. The questionnaire responses of the 206 participants were captured for this second phase of the study. The rule of the thumb is to have a ratio of one question per 10 participants, but statisticians have varying opinions about this (Izquierdo Alfaro, 2014). According to Tabachnick and Fidell (2013), there is no strict rule for a question–participant ratio in a sample where EFA is used. The suitability and implications for the EFA sample size used in this study are further discussed in Chapter 5.

Validating the questionnaire was important. Therefore, EFA was performed on the 32 items of the questionnaire using PCA with varimax rotation (Dien, 2010). The EFA (reliability and validity test) was done in order to extract the underlying dimensions (performed as a dimension-reduction technique). Ray et al. (2021) argue that a dimension-reduction technique is essentially a compression of a dataset from a higher to a lower dimensional matrix, and that it is intended to ease data prediction, analysis and visualisation.

When using EFA, the items that load the least (<0.30) on their respective factors, or those that cross-load substantially across other factors, need to be removed. Field (2013) recommends that items with factor loadings below 0.3 should be removed, while there should also be at least three items per factor that have loadings of at least 0.4. In the present study, the strategy for the elimination of these items was not entirely based on item loading strength. Rather, the discarding of items was also performed on the basis of items not contributing to the adequate statistical identification of a factor, or of items not consistently measuring the same characteristic and not offering the best fit (Child, 2006). For example, item 13 ('Harm

reduction is another way of promoting substance use') was discarded from the factor 'Lack of resources and support' because it was not theoretically consistent/not loading well with what other items in the factor were measuring. After discarding some items, a re-run of the analysis on the remaining items reflected a change on some loadings and other parameters (Child, 2006).

In order to determine which items in the questionnaire should be grouped together based on their measuring the same underlying factor, factor loading using EFA was done (Dien, 2010). SPSS version 27, a software program designed to conduct research statistical analysis, was used. PCA determines which items with highest correlation factor load (Awang et al., 2015).

Six items were eliminated after the analysis as they did not have adequate measuring characteristics (Child, 2006). The questionnaire was then subsequently reduced to a 26-item questionnaire. As part of the standardisation of the scale, Cronbach's alpha was calculated using SPSS to determine the internal consistency (Astivia et al., 2020). Scholars, such as Creswell et al. (2011), argue that a score of 0.7 to 0.9 is generally preferred and acceptable.

For quality assurance, statistical methods as well as non-statistical logical reasoning to identify and correct errors were used. On a scale of 0 to 3, averages were calculated for each barrier to show the relative strength of each. The items were rank-ordered according to the frequency of being endorsed as a significant barrier within each theme/factor.

As part of the data analysis, independent samples t-tests were performed to determine if there were significant differences in the characteristics of the demographic variables, namely that of gender. Independent samples t-test is a parametric test that is widely used to compare the averages/means of two independent groups with the ultimate aim of establishing whether there is statistical evidence that the averages/means of the two groups under comparison are significantly different.

4.6.4 Phase 3: SSIs

Qualitative data collection was conducted using SSIs to gain an understanding of the barriers that constrained young adults using substances from seeking help and accessing treatment. SSIs allow researchers the opportunity to look beyond the facts and numbers obtained through the quantitative methodology (Adams, 2015). Qualitative approaches, such as SSIs, have the capacity to generate culturally contextual knowledge (Hoover et al., 2018). Through SSIs, researchers are able to learn about or confirm the meaning behind the data (Adams, 2015). Interviews are essential qualitative data collection tools as they capture the voices and reflections of participants in a manner that cannot be matched by quantitative research tools, such as closed-ended questionnaires (Adams, 2015; Hoover et al., 2018). In this research, the explanatory design that sequentially connected the survey and the SSIs was meant to give an explanatory edge to the quantitative findings.

SSIs have been used in other substance use studies to obtain some insights and understanding of the participants' experiences of living with SUDs and the barriers they face in seeking help and treatment (Isobell et al., 2018). Further, interviews assist in highlighting individuals' narratives of their lived experiences and feelings (Deepa & Panicker, 2016).

4.6.4.1 Sampling and Inclusion/Exclusion Criteria. In-depth face-to-face SSIs were separately administered to young adults who lived with SUDs and were COSUP programme. It was decided to interview current patients in the COSUP programme to determine what they perceived to be barriers to registering, initiating, maintaining, or completing treatment.

The SSIs in this research were conducted with 15 participants (the sample size) drawn from across COSUP sites in Tshwane. All 15 had availed themselves for participation, and the researcher intended to interview these participants until data saturation had been reached. Mason (2010) asserts that there is no scientifically prescribed sample size for qualitative

research but that 10 to 30 participants are generally acceptable for most studies to obtain a variety of views and opinions.

Young adults who were part of the COSUP project were purposively sampled for participation in the interviews. As this research was community-based, a site-based participant recruitment approach was used. In this context, the researcher and the peer coordinator contacted the 'gatekeeper' peer educators from each site, explained the purpose of the interviews, and asked for help to recruit study participants. Gatekeepers are an important link to provide the researcher with access to members of their sites, and gain entry into the community (McAreavey & Das, 2013).

The COSUP peer coordinator and the site-based peer educators telephonically contacted individual members deemed to meet the study's inclusion criteria and asked them for consent to be contacted by the researcher. The inclusion criteria stipulated that participants had to be young adults (in the age range of 18 to 29 years) living with SUDs and participating in COSUP's treatment programme at the time that the research was being carried out. To be considered for participation in the SSIs, the individuals needed to have participated in the preceding questionnaire of the quantitative phase. According to Creswell (2015), it is essential to draw participants from the same population when using a sequential design in MMR in order to obtain explanations for quantitative findings. Young adults who were not registered with the COSUP project were excluded from participating in the study because it could not be established if they met SUD diagnostic criteria.

4.6.4.2 Data Collection. An SSI is an open-ended interactive approach in an interview setting, with some follow-up prompts designed to obtain in-depth qualitative data from research participants (Halcomb et al., 2021). The SSI questions were designed to address the broader research question discussed in Chapter 1. In order to try to maximise the chances to draw clear and unambiguous responses, the researcher avoided using loaded and

double-barrelled questions. The researcher pre-tested the interview schedule with four COSUP clients from the Mamelodi and Sunnyside sites, refined it, and adapted and finalised it. The final question guide for the interviews is presented in Table 4.

In developing the interview guide, the researcher, guided by the presumptions of the theoretical frameworks used in this study, developed the method of inquiry and SSIs questions. For instance, the presumption of the theoretical framework that treatment barriers and help-seeking behaviour were defined at multi-levels helped to shape the interview guide. To give an example: question 4 (see Table 4) in the interview guide that read, 'What is the general attitude of the community towards people who use drugs and does it bother you?', was formulated from the knowledge that there were community-level barriers (contextual/structural barriers), as were espoused by the SEM and ABM frameworks. On the other hand, question 2 which read, 'Briefly explain what you think prevents most young adults using substances from seeking treatment' and which elicited the participants' own thoughts, feelings/attitudes about what they perceived to be barriers to treatment, needed a method of inquiry (SSI) that aimed to obtain personal, in-depth information. These feelings and attitudes were personal characteristics or individual/microsystem barriers as explained by the ABM and SEM frameworks respectively.

The researcher and the psychology postgraduate research assistants were mindful of the need to create an atmosphere of trust and openness during the interview sessions in order to harness more purposeful participation and obtain information-rich responses from the participants. When applicable, probing was used to establish clarity and to allow interviewees to expand their views. The questions used in the interview process are presented in Table 4.

Table 4

Interview Guide

1. Please share with me how you came to know about the COSUP substance use healthcare programme.

2. Briefly explain what you think prevents most young adults using substances from seeking treatment.

3. Please comment on the level of substance use awareness in the communities.

4. What is the general attitude of the community towards people who use drugs, and does it bother you?

5. What are your perceptions or experiences with healthcare workers in substance use help and treatment centres?

6. Please comment about the effectiveness of the police service in supporting substance use health care services like the one of COSUP.

7. What was your perception on the usefulness of substance use treatment services before you entered this programme?

8. By referring to the different substance use treatment methods that you know, explain your views on whether these methods are effective or not.

9. 'I didn't think I needed any help.' To what extent was this statement true to your own situation before you decided to seek help?

10. To what extent were the financial resources (cost) an important factor in you determining whether to seek treatment or not? Explain.

11. 'The COSUP sites are too few and sometimes these sites do not have enough healthcare workers.' Make a brief comment about this statement.

12. What is your comment on the role of cultural beliefs in relation to help-seeking among people using substances?

13. In your view, what are some of the achievements of the COSUP programme?

14. What are your own recommendations to improve substance use healthcare services?

Interviews were conducted by the researcher and two psychology postgraduate research assistants with interviewing skills in order to minimise interviewer bias. With the consent of the participants, the interviews were audio-recorded. These were once-off interviews, and each interview of each participant took between 40 and 60 minutes.

4.6.4.3 Field Notes. In order to explore the multitude of perceptions, the field notes compiled by the researcher were used to supplement the obtained qualitative data (Creswell, 2014). The field notes were compiled immediately after the interview sessions when the researcher still had a fair recollection of not only what was said in the interview but also what was observed (particularly expressed emotions and other non-verbal cues) (Creswell, 2014).

Writing the field notes enabled the researcher to reflect on the experiences of young adults using substances in relation to help-seeking, treatment dynamics and processes.

The field notes ensured that contextual information was collected as an essential component of rigorous qualitative research (Phillippi & Lauderdale, 2018). These field notes were incorporated into the wider scope of the analysis of the themes that emerged. Further, the taking of field notes was part of the quality assurance measures implemented, which are discussed in more depth later in this chapter.

4.6.4.4 Data Analysis of SSIs. Several patterns of similarities were revealed in the analysis of the SSIs and FGDs, as discussed earlier in this chapter. Braun and Clarke's (2019) thematic analysis approach of qualitative data analysis was also applied to the SSIs.

Interviews were transcribed verbatim into textual data and then systematically coded. The review of the transcripts was intended to ultimately identify the themes and different relationships between them (Braun & Clarke, 2019). The themes characterised particular perceptions in participants' accounts that the researcher observed in order to connect these perceptions with the research question.

4.6.5 Quality Assurance of Data

After the data had been analysed, measures were taken to check and ensure the trustworthiness and credibility of the data by applying the COREQ guidelines. Data quality assurance refers to the procedures to ensure the integrity of qualitative and quantitative data and to establish if the data could be deemed fit for their intended use in operations, planning, or decision-making (Kahn et al., 2015). Through different procedures, quality assurance was performed on both the qualitative and the quantitative data.

4.6.5.1 Quality Assurance of Qualitative Data. Guba and Lincoln (1994), as well as Amankwaa (2016), posit that data analysis in qualitative research should be done so that it produces legitimate results grounded in human experiences, reflecting credibility,

transferability, dependability, and confirmability. Dependability and confirmability are ensured by creating an audit trail whereby the records of the study path explicitly describing the research course from the start to the findings are noted (Korstjens & Moser, 2017). To ascertain the trustworthiness and credibility of the data and data analysis, member checking was done after the compilation of results. Member checking entailed asking for feedback from participants in order to evaluate if interpretations made were accurate (Candela, 2019). Such checking also ensured that appropriate changes could be made to the interpretations where necessary so that the results reflected the views of the participants (Korstjens & Moser, 2017).

To ensure credibility, the interpretation of the data was done by more than one data interpreter. The researcher and the two research assistants analysed the data and discussed the themes to check for congruency and consensus. This was done to limit potential bias in the interpretation of the data (Korstjens & Moser, 2017).

4.6.5.2 Quality Assurance of Quantitative Data. A questionnaire that had been used previously in other studies was adapted for use in the present study. This questionnaire, referred to as the BQ, which had been previously validated with substance-using samples and had been used in other countries, was observed to have high content validity (K. E. Green, 2011).

The researcher performed factor analysis to establish if the construct validity was at acceptable levels. Cronbach's alpha was used to give an indication of the extent to which the items measured the same construct. The psychometric properties of this questionnaire are presented in Chapter 5.

4.6.6 Integration of Qualitative and Quantitative Results

Data integration defines the practical activity of bringing together the qualitative and quantitative findings whereas triangulation holds an epistemological claim of the resulting knowledge (Moran-Ellis et al., 2006). From this assertion, one can argue that triangulation goes beyond the process of integration.

4.6.6.1 Triangulation of Qualitative and Quantitative Findings. At the results stage, the qualitative and quantitative findings were triangulated to determine if the findings were complementary or contradictory (Sedoglavich et al., 2015). The merging of quantitative and qualitative methods in MMR reveals the similarities and differences in the findings. In this study, the two sets of data were given equal weighting in order to adequately address the corresponding research objectives. The advantage of the integration process was that the qualitative data gave some meaning to the quantitative findings (Goldsmith et al., 2018).

The quantitative results (the measured barriers to help-seeking and treatment) were merged with the qualitative results (patients' experiences and beliefs) to produce an in-depth understanding about the reasons for the reluctance of participants to seek help and treatment.

4.6.6.2 Triangulation as a Basis of Analysis and Integration. In order to enhance scientific rigour, the themes that emerged from the whole research process were triangulated. The concept of triangulation is essential in the integration of data in MMR (Fielding, 2012). Triangulation in this study was done with a view to enhance validity by interrogating convergence of findings, complementarity, and divergence of findings (Flick, 2018). In addition to enhancing validity, the concept of 'multiplism' in combining different methods in MMR is applied when it is not clear which one is the best applicable methodology to use for a data set, and hence the need to triangulate the most promising ones when more confidence is required if different methods yield the same result (Barnat et al., 2017).

MMR is better able to confirm or disconfirm a theory than when a qualitative or quantitative approach is used in isolation because triangulation sets the tone for completeness (Koivu & Hinze, 2017). The process of triangulation entails combining multiple observers, theories, methods, and empirical materials with the intention of overcoming intrinsic biases and challenges that come with using a single method, single observer or single theory (Barnat et al., 2017; Koivu & Hinze, 2017). This process forms some convergence with CR, which is grounded in the viewpoint of multiple realities (Zachariadis et al., 2013).

Triangulation of data from qualitative and quantitative findings was performed to enhance analytic density and methodological richness (Fielding, 2012). Figure 15 illustrates the steps in triangulating data.

Figure 15

Steps in Triangulating Data
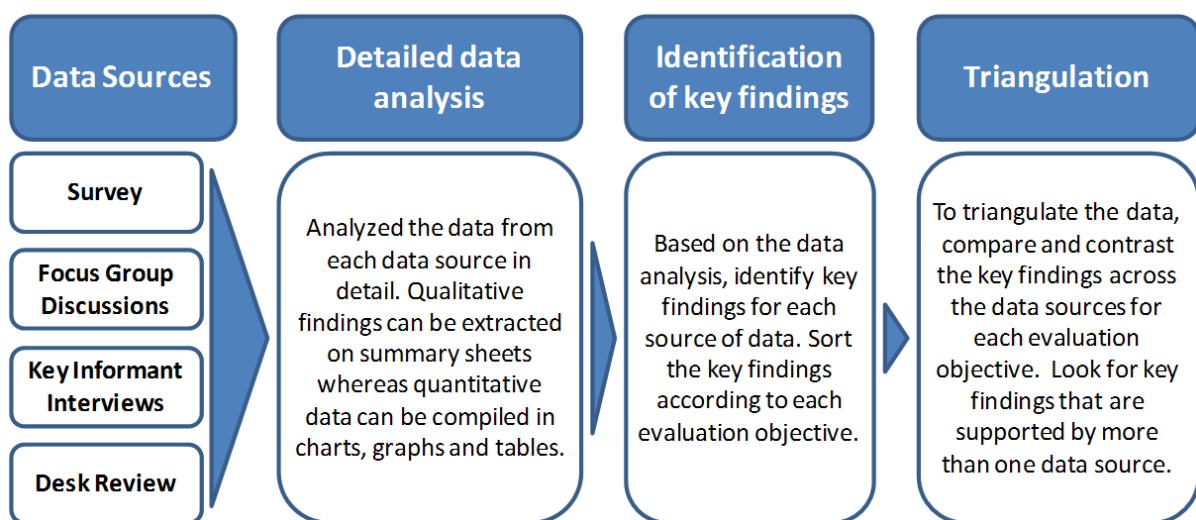
Note. Reprinted from *Triangulation: A best practice method* [LinkedIn post] by Lindgren, D. (2015, 5 October). https://www.linkedin.com/pulse/triangulation-best-practice-method-daniel-lindgren/

Triangulating data in this study involved comparing and contrasting the key findings across the data sources for each evaluation. As indicated in Figure 15, the triangulation process entails following three key processes after having extracted data from the data

sources (Lindgren, 2015). In the present study, a detailed analysis of the data extracted from the three data sources was carried out by identifying key findings, and this was followed by data triangulation.

4.6.6.3 The Convergence Model. The convergence model (a variant of triangulation) is a reflection of the traditional model of an MMR triangulation design (Ndanu & Syombua, 2015), and this model was used in the present study. The process entailed collecting and analysing the qualitative and quantitative data of the same phenomenon separately, and, during interpretation, converging the different results using comparing and contrasting techniques (Ndanu & Syombua, 2015). Essentially, researchers use this model as a means to validate, confirm, and corroborate quantitative and qualitative findings. The ultimate aim is to filter valid and well-substantiated conclusions relating to the phenomenon under scrutiny (Usher & Whitty, 2017). In the present study, findings from the FGDs, SSIs, and the survey were converged by comparing and contrasting them as a strategy to validate, confirm, and corroborate the findings.

Thereafter, the triangulation design, using the convergence model, was implemented. To corroborate the results, the qualitative and quantitative results were compared and contrasted through the convergence process. Figure 16 below is a diagrammatic illustration of the convergence model that was used in this research. The two strands of data were not concurrently collected nor concurrently analysed; rather, the qualitative data collection and analysis, and the quantitative data collection and analysis were conducted separately and sequentially.

Figure 16

Convergence Model
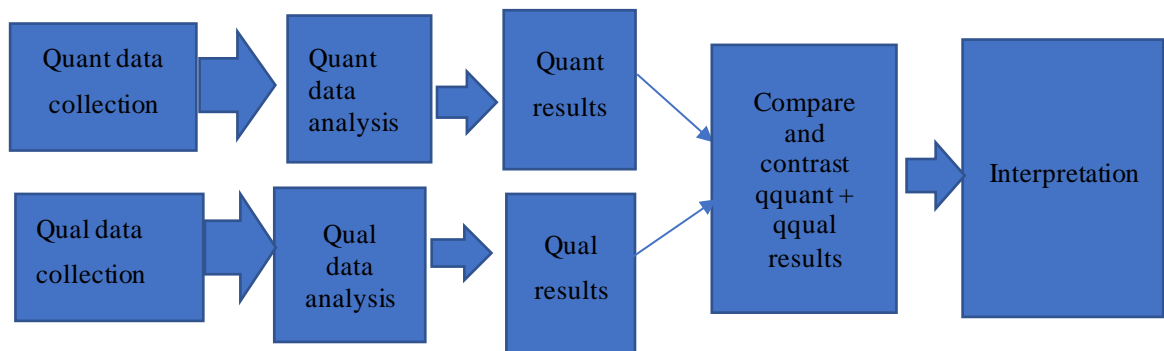
Note. Adapted from 'Mixed methods research: The hidden cracks of the triangulation design' (p. 46) by Ndanu and Syombua (2015) in the *General Education Journal*, *4*(2). https://www.academia.edu/18131660/Mixed_Methods_Research_The_Hidden_Cracks_of_the_Triangulation_Design

4.6.6.4 Interpretation of Triangulated Findings. While quantitative findings are usually used to confirm qualitative findings, and qualitative findings are used to explain quantitative findings, convergence of the findings is not always given priority (Guével & Pommier, 2012). In this research, the convergence model was used for the interpretation of the triangulated results; the quantitative and qualitative results were compared, contrasted, and merged to develop an overall interpretation of the results (Creswell et al., 2011).

The differences and similarities that emerged from merging the qualitative and quantitative findings helped to give a more solid overall interpretation of the findings (Creswell et al., 2011). Although seldom addressed by researchers, it is important to note that there are actually instances where qualitative and quantitative results in MMR yield discordant data (Pluye et al., 2009). Conflicting evidence between the qualitative and quantitative findings gives rise to data discordance. Instead of completely discarding the findings when this occurs, one should delve into a greater analysis through the processes of reconciliation, initiation, and bracketing and exclusion (Pluye et al., 2009). Reconciliation

may entail running further analyses, initiation refers to starting a new research project on the basis of a new hypothesis or just collecting further data, whereas bracketing and exclusion could point to discarding/excluding part of the data (Guével & Pommier, 2012; Pluye et al., 2009). These are possible ways of dealing with diverging results, and the application of such strategies are further discussed in Chapter 5.

4.7 Ethical Considerations

All research procedures followed in this study were approved by the Ethics Committee of the Faculty of Humanities (see Appendix A), University of Pretoria prior to the commencement of the research. A permission letter (see Appendix B) to conduct this study was issued by COSUP through the University of Pretoria's Department of Family Medicine which is spearheading the COSUP project alongside other partners such as the City of Tshwane, the Gauteng Department of Health, and the Gauteng Department of Social Development. Prior to the recruitment process and the commencement of the research, the peer educators, COSUP clients, and all potential participants in the research were briefed about the scheduled research and the profile of the researcher. This briefing was in line with the COREQ guidelines.

For the FGDs, potential participants and peer educators were contacted telephonically by COSUP's peer coordinator and invited to participate on a voluntary basis. After being briefed on the purpose of the research and agreeing to participate, the potential participants were issued with an information sheet and consent form outlining issues such as voluntary participation, confidentiality, and informed consent (Sil & Das, 2017). The actual names of the participants or other pieces of identifying information were not used in the report. Participants were code named using numbers. For the quantitative data collection, young adults were recruited by the peer coordinator via the peer educators stationed at different

COSUP sites. After having signed the consent form (see Appendix D) to take part in the survey, the respondents completed their self-report questionnaires.

The recruitment and ethical procedures followed in respect of the FGDs were replicated for the SSIs in which young adults participated. Respect for participants, justice, beneficence, confidentiality, protection of privacy, informed consent, voluntariness, and non-coercive practices were the guiding ethical principles across all three research procedures used (Sil & Das, 2017). Monetary incentives were not applicable, and participants were not remunerated (see Appendix E).

All data, including paper documents, such as consent forms, and data on transportable media, such as flash memory devices and CDs, would be stored in a locked file cabinet in the University of Pretoria's Department of Psychology, to which only authorised persons would have access. Electronic data would be protected using secure passwords and would be restricted through the use of group login ids and shared accounts.

4.8 Conclusion

This chapter discussed the MMR approach used in this research, starting with the sampling and recruitment of participants, and moving on to data collection, data analysis, integration, triangulation, and interpretation strategies. The research questions and objectives enabled the researcher to have a roadmap of what and how procedures had to be carried out. The qualitative and quantitative approaches were implemented sequentially, and the results integrated in order to identify similarities and differences.

Chapter 5: Results

Chapter 5 presents the results of the research. The qualitative research strategies centred on exploring and explaining the barriers to help-seeking and treatment among young adults living with SUDs with a view to develop research-informed intervention strategies. The quantitative research phase revolved around identifying and measuring the extent of the barriers that hindered help-seeking and treatment among young adults living with SUDs.

5.1 Phase 1: FGDs

Fifteen COSUP peer educators participated in two FGDs. As mentioned in Chapter 4, the demographic characteristics of the sample were as follows: 13 males (86.7%) and two females (13.3%). The mean age for the sample was 33.5 years (SD = 3.9, age range = 29–44).

Three salient themes and several sub-themes emerged from the thematic analysis of the FGDs. The themes were barriers to treatment, effectiveness of the COSUP intervention, and ways to increase the motivation of young adults to seek help.

5.1.1 Barriers to Treatment

Barriers to treatment can be described broadly as attitudinal and systemic barriers (Grella et al., 2020). The attitudinal barriers relate to stigma, lack of perceived need for treatment, and lack of perceived treatment efficacy. The systemic barriers include the information gap, costs of treatment, the lack of resources in the treatment system, and the lack of support mechanisms. Following Table 5, the themes and sub-themes relating to attitudinal barriers, and the themes and sub-themes relating to systemic barriers are discussed and illustrated with excerpts from participants' remarks during the FGDs.

Table 5

Barriers to Treatment

Attitudinal Barriers	
Theme	Sub-themes
Stigma	• Labelling and stigma in the community • Discrimination in the healthcare system • Discrimination in the police service
Lack of perceived treatment need	• Denial • Unreadiness to change • Peer influence
Lack of perceived treatment efficacy	• Perception of harm reduction as an ineffective treatment
Systemic Barriers	
Information gap	• Lack of information about services • Lack of information within the community and police service
Financial costs	
Inadequacy of substance use treatment services and resources	• Lack of adequate healthcare personnel • Shortages of services/facilities • Tedious processes
Lack of moral support	• Lack of family support • Lack of community support • Culture and religion/spirituality as a barrier to utilisation of medical treatment interventions

First, the theme of attitudinal barriers and its sub-themes relating to stigma, lack of perceived need for treatment, and lack of perceived treatment efficacy are discussed.

5.1.1.1 Stigma. Participants mentioned stigma as the most significant barrier to substance use healthcare service utilisation. Stigma, which entails negative attitudes and beliefs towards people with SUDs, has subsequent effects on people with SUDs, ranging

from treatment-seeking, choice of treatment, treatment retention, and treatment adherence (Cioe et al., 2020). The stigma domains as depicted in Table 5, often tend to overlap and interlock with each other and seldom function as exclusively distinct categories.

According to the participants, stigma was visible in the community in various forms and settings. The participants experienced that community members judged and stigmatised people using substances. They remarked as follows:

'Stigma is the number one barrier whereby some of us when people judge us, we no longer even have self-belief or believe in ourselves.' (FGD2, participant 4)

'The stigma is coming from everywhere, coming from their peers, it's coming from their families, it's coming from community leaders…. it's just hitting them from everywhere.' (FGD1, participant 4)

'I think mainly it's the stigma associated with substance use … people will be ashamed to be associated with substance users.' (FGD2, participant 5)

5.1.1.1.1 Labelling and Stigma in the Community. According to the labelling theory, stigma relates to the cognitive distortion emanating from a label that links a person to an undesirable characteristic. People tend to take that one characteristic of a person and apply it to the whole person (Lloyd, 2010).

Participants reported that due to the reaction of other people towards people using substances, they experienced a loss of identity, which gave them a feeling of being viewed as 'misfits' and the 'odd ones out' in society (Walker et al., 2022). Being labelled and tagged with names that associated them with substance use made them feel they had, invariably, lost their identity from the perspective of other people. They became negative standouts in society. One participant summed it up as follows:

'Families can trigger the child to go and use substances by calling the child names like nyaope user and so on, and many names.' (FGD 2, participant 1)

People using substances feared the experience of being labelled as *nyaopes* (heroin users) and being subsequently rejected as they were associated with institutions involved in substance use programmes. Associating themselves with substance use programmes caused them to be labelled as drug users. This labelling and the accompanying rejection hindered people using substances from accessing treatment. One participant commented:

'I would say stigma is one of the strongest reasons why most individuals don't participate in the programme. Being afraid to be openly known that you are associated with the substance organisation means that you are in fact partaking in substances.' (FGD2, participant 5)

According to the participants, the fear of rejection in the community due to the negative label attached to people associated with attending substance use treatment programmes, ended up constraining them from seeking treatment.

'They are in fear that they can't be accepted to the community if they participate in substance use treatment programme.' (FGD1, participant 8)

5.1.1.1.2 Discrimination in Healthcare Settings. Discrimination refers to the behaviour of treating a person differently/negatively because of a negative belief about or attitude towards a certain attribute that the person possesses (Muncan et al., 2020). The experiences of the participants (and of other substance users with whom they had communicated) at the hands of healthcare workers at COSUP as well as in general healthcare settings, are presented below.

According to the participants, discriminatory practices in the form of substandard treatment and hostility towards SUD patients were prevalent in general healthcare settings, and some of these practices had even been reported within COSUP. Although the majority of the participants reported satisfactory service from COSUP healthcare workers, there were some reports of sub-optimal service. Some participants had experienced COSUP healthcare

workers to engage in discriminatory practices such as not giving them adequate attention and/or not listening to them. Participants related the following:

'Some of our colleagues [healthcare professionals] sometimes mistreat clients simply because they are using substances.' (FGD1, participant 8)

'Sometimes because you are a substance user, they don't listen to you.' (FGD2, participant 4)

Judging from participants' previous experiences at the hands of healthcare workers, not necessarily in COSUP, but in the healthcare system in general, there was a feeling that people using substances received substandard treatment, and this dissuaded them from seeking help. The quote below exemplifies that.

'They don't seek any services anywhere just because they know what kind of treatment that they are going to get. Discrimination is what we are used to everywhere.' (FGD1, participant 4)

'At the hospital their discrimination is too much, so that is why they can't confess that they are using heroin.' (FGD2, participant 1)

Participants reported experiences of being ridiculed and not being taken seriously because of their condition. Below is a response of one participant during an FGD.

'I feel that many young people feel discouraged because whenever they seek help, they are not taken seriously. Health workers make jokes about their situations.' (FGD2, participant 3)

Participants reported feeling avoided, excluded, and marginalised in healthcare settings. Healthcare workers displayed an attitude of delaying and minimising their engagement with patients who presented themselves for substance use treatment. There was an overwhelming response of being discriminated against, being excluded, and being told to

wait for prolonged periods of time by the healthcare workers. Some participants observed the following:

'Even at the clinic, a user won't go to a clinic because some nurses will tell you to go and stand there simply because you are a user and maybe you didn't wash because you stay in the streets.' (FGD1, participant 8)

'Even in hospitals, you sometimes go there and because you are a substance user, they will tell you wait, wait, wait, wait. Just because of you getting this kind of treatment, that's why even many substance users, they give up.' (FGD2, participant 4)

'As you know we are a vulnerable group of people. As you know we are a key population whereby we are marginalised and we are used to being discriminated against everywhere we go, in healthcare and by the police. That's why sometimes they don't want to participate in substance use programmes like this.' (FGD2, participant 4)

According to the participants, healthcare workers judged and stereotyped people using substances. Murawska (2014) states that stereotyping is a form of harbouring an over-generalised belief about a particular group of people that is caused by ascribing the collective characteristics associated with that particular group to every member of that group, discounting individual differences and characteristics. There was a fairly strong contention among participants that healthcare workers negatively stereotyped people using substances, which might have resulted in these patients receiving reduced attention.

'Just because you look this way, they are already assuming that you are in the wrong.' (FGD2, participant 4)

Responses from the participants indicated that patients seeking help for substance use often felt misunderstood and generally blamed for their condition.

'Just because you are using substances …, they say it's all because of your substance use fault. But it's not your fault, you are having a problem, you are sick but everyone has this wrong perception about us substance users.' (FGD2, participant 4)

'People will be ashamed to be associated with substance users.' (FGD2, participant 5)

The participants also indicated that their experiences with the healthcare system left them feeling that the healthcare workers were abusing their powers at the expense of the SUD patients. It gave participants a sinking feeling of 'helplessness' and 'hopelessness'. The healthcare workers reportedly showed a disdainful and contemptuous attitude towards substance use help-seekers. One participant said the following:

'And I would also like to mention from personal experience that from a hospital that I later found out they had access to methadone, I was refused methadone purely because I was a user.' (FGD2, participant 4)

5.1.1.1.3 Stigma in the Police Service. Authorities may discriminate and may capitalise on society's stereotyping and negative perception of a defined population group that possesses a certain attribute deemed undesirable, in order to exert exploitation and control over that group (Breggin & Stolzer, 2020; Murawska, 2014).

Several participants raised the aspect of feeling 'powerless' in the face of discrimination and misuse of authority by the police. Participants felt that sometimes the conduct of the police was abusive in nature and that they were being taken advantage of merely because of their condition. There were incidents of the police confiscating treatment medication, such as methadone, and also needles and syringes from patients on the NSP programme.

'We informed the police officers that we will be giving NSP but they told us they are going to arrest our clients and they are going to wait for them by the gate.' (FGD2, participant 5)

Although there is room for more education of the police on the harm-reduction programme, there is already some significant measure of knowledge and awareness of the programme on the side of the police. Nevertheless, they sometimes choose to act as if they do not have any such knowledge. The participants expressed their concerns as follows:

'Personally, I have been arrested. This officer searched me, didn't find anything and told me I had thrown my stuff away. I was arrested when I got to the police station. Stock [from within the police station] for the evidence was brought right in front of me, and I screamed and yelled, but nobody at that police station helped.' (FGD2, participant 5)

'The fear is being instilled by the police because of them deliberately arresting individuals for things which are basically not crimes. For them arresting individuals for having syringes … but you don't know whether that individual is diabetic or not.' (FGD2, participant 5)

'I feel like the system should be monitored in such an extent that the police do not abuse their power.' (FGD2, participant 5)

The participants reported being subjected to indiscriminate harassment and abuse by law enforcement agencies. Participants felt being taken advantage of and being disempowered.

'We know they are used to picking up substance users, beat them up and go throw them up somewhere. That creates the fear and makes substance users afraid of calling the police when they themselves are in trouble; also an association with stigma.' (FGD2, participant 5)

'I feel the police, what they are doing are human rights violations. They are abusing their power, even now there are cases that I have been assigned to look into whereby they are taking people's methadone, medication and throwing it away.' (FGD2, participant 4)

5.1.1.2 Lack of Perceived Treatment Need. Responses showed that there was a lack of perceived need for treatment. One participant posited as follows:

'I will say I will manage the condition.' (FGD2, participant 4)

The responses of the participants revealed three sub-themes. The first sub-theme was the denial of the problem, and the second sub-theme was the unreadiness to change.

5.1.1.2.1 Denial. Denial has been cited as one of the factors barring young people from seeking help. Denial comes from an individual's failure to acknowledge or perceive a problem situation (Glass et al., 2015). In the present study, denial was revealed in the following ways:

'That is why they can't manage to come to COSUP, and again the reason is the others are in denial.' (FGD2, participant 1)

'The first stage that people go through is denial. So, they are in denial before they accept, and many of them can relate to what I am saying because I remember even me while I was still smoking, I always had reasons why I smoked.' (FGD2, participant 4)

5.1.1.2.2 Unreadiness to Change. Participants highlighted that the reason why some people did not seek help was simply because they were not ready to change and, therefore, did not perceive the need to seek help.

The participants attributed the lack of healthcare utilisation to an apparent lack of commitment to change.

'These programmes do help a lot but it all depends on a person because you can't force someone if he doesn't want to change; so it all depends on a person if you want something in life you must commit to it.' (FGD1, participant 8)

'I would say, the other thing that becomes an obstacle is that people say they are ready and they are going to change their substance use behaviour but they don't necessarily do so or follow through.' (FGD1, participant 4)

5.1.1.2.3 Peer Influence. The use of substances collectively with their peers gives individuals a sense of identity and belonging and, hence, if they decide to quit using substances, they may experience a loss of identity and of connection with their peers, and possible rejection. The findings showed that peer pressure and motivation to retain their identity in the peer group might prevent them from seeking help and treatment.

'Also, the reason people don't participate in COSUP programmes is that they start to think how their friends will feel when they see them clean.' (FGD2, participant 1)

5.1.1.3 Lack of Perceived Treatment Efficacy. Efficacy typically refers to the ability to achieve a desired intended result (Bond & Witton, 2017; Perumbilly et al., 2019). In the context of substance use treatment, lack of perceived treatment efficacy refers to healthcare users' feelings of uncertainty and incertitude about the effectiveness of a certain treatment (Perumbilly et al., 2019). During the FGDs, participants reported that some individuals in the community did not seek help because they perceived COSUP's OST intervention to be ineffective. According to the participants, some people in the community queried the effectiveness of the treatment, and this stopped some individuals from seeking help.

'I think that the reason why young adults don't participate in these programmes is that they feel that the medication isn't working because most of the people have been on methadone for a year or two but still no change.' (FGD2, participant 3)

Participants reported that some people complained that the NSP service actually promoted and did not discourage substance use. This was another example of a reason why people raised queries about the effectiveness of treatment and why they had doubts about seeking help.

The perception that harm reduction was an ineffective treatment, featured as part of the perception of people who used substances. Although drugs such as methadone and

buprenorphine have, for a long time, undergone rigorous efficacy testing and proved to be safe for opioid treatment, participants in the present study's FGDs raised the point that some people thought harm reduction was simply a situation of replacing one addiction with another. Thus, they expressed the perception that harm reduction was an ineffective mode of treatment.

'They don't believe in harm reduction. They say they clash with harm reduction because they say we are promoting substance use.' (FGD2, participant 4)

'When they see people giving [harm reduction] service, helping people to save lives, they used to say you are promoting drugs. At COSUP, when we give the guys methadone or NSP, they say we are promoting drugs.' (FGD2, participant 1)

The media and the literature have often used terms such as 'substitution therapy' or 'replacement therapy', but it has been argued that such terms could lead people to think that harm reduction is simply the substitution of one addiction for another (Kourounis et al., 2016). Some participants indicated that they were aware that OST required long-term maintenance treatment, but that not everyone was aware of this. Therefore, some people who saw patients receiving treatment for an extended period of time, misconstrued the situation and thought that the treatment was ineffective.

'They think that you have one bottle [methadone] and then you are healed. That's what most people believe and it's not like that, it's a continuous process.' (FGD2, participant 4)

'I think there is lack of information on harm reduction.' (FGD1, participant 4)

The notion that harm reduction as a treatment paradigm sought to minimise/reduce health risks by supporting the innocuous/less harmful use of drugs, and not necessarily becoming immediately abstinent, seemed to the participants not to be understood.

'You find that people say things like, "It makes no difference, there are people who take the medication, yet they still use substances."' (FGD1, participant 4)

There is an alternative school of thought that subscribes to the idea that religion and spirituality can achieve better treatment outcomes than medical and psychosocial interventions (E. Guerrero & Andrews, 2011). This was elaborated on earlier in Chapter 2, and it re-emerged as a theme in the FGDs. According to the participants, such sentiments had even been supported by people working in the medical fraternity.

'I am talking from a personal experience because I once tried to quit and I went as far as to the hospital. At the hospital, my stepmom is a nurse and there they told her, let's refer him to some pastor, the pastor is helping kids there. When I went there, they wanted me to quit substances and they don't believe in medical things. I told them there that I want methadone, and they said no. They said he wants to leave another drug to get another drug.' (FGD2, participant 4)

Apparently, there was a perception that medically assisted treatment interventions, such as OST, had limited effectiveness. The perception of culture and religion/spirituality as a more effective intervention for SUDs is highlighted further in the next section. For the time being, however, it was noted from participants' remarks during the FGDs that religion and spirituality were omnipresent features in society's attitudes regarding the treatment of substance use. This matter will be discussed further when the research deals with the questionnaire and SSI data.

Next, the theme of systemic barriers and its sub-themes are discussed. Systemic barriers refer to barriers in the community or the healthcare setting that make it difficult for people using substances to seek treatment (Kenny et al., 2011; Priester et al., 2016). In this research, the systemic barriers that were identified were grouped as information gaps,

financial and time costs, inadequacy of substance use treatment services and resources, and lack of community support.

5.1.1.4 Information Gap. The information gap barrier is one of the most prominent barriers to treatment (see Table 5). Overall, an information gap refers to the lack of information relating to treatment options available, and also to the way these treatment services work (Sung et al., 2011). In the present research, these information gaps were contextualised as two sub-themes, namely, lack of information about services, and lack of information within the community and the police service.

5.1.1.4.1 Lack of Information About Services. The FGDs revealed a lack of information with regard to where to get services. As shown in the responses below, some participants also indicated that they were initially unaware of COSUP services.

'For me to join COSUP, I had suffered for a very long time, using substances and being unaware of COSUP. I only found out about COSUP from one of my friends that we stayed with in the same section and he told me that there is COSUP'. (FGD1, participant 2)

'I would say among 60% or 70% of young adults, there is not enough information about COSUP or about these institutions and where they are.' (FGD1, participant 6)

In addition to not knowing about where to get treatment services, people using substances did not have adequate information about how these services worked, particularly in the case of OST.

'So I think there is lack of information on harm reduction.' (FGD1, participant 5)

5.1.1.4.2 Lack of Information Within the Community and the Police Service. As mentioned earlier, the police did not seem to be well-informed about harm-reduction initiatives, and a participant confirmed this.

'Harm reduction should be integrated into the law enforcement course because they should know about what we are doing. Now it's like we are clashing, you are doing one thing and they are coming and destroying it.' (FGD1, participant 4)

Harm reduction seems to have been received with mixed feelings in communities, and so there remains a need to further educate stakeholders in how this mode of treatment works. By educating others about it and fostering greater awareness, professionalism in the law enforcement service regarding the way they engage with people using substances would most likely improve. Currently, however, it appeared that information on harm reduction was inadequate in the police service.

'Just to add, also our communities, they don't have full information [about harm reduction].' (FGD2, participant 1)

'A lack of knowledge; they don't know what methadone is, they think it's codeine, they think it's Bron Cleer [Bronco], you see? That is why you see police need more training on things like this.' (FGD2, participant 4)

5.1.1.5 Financial Costs. In the present study, financial costs related to expenses incurred to access healthcare services (Goldstone & Bantjes, 2017; McCann et al., 2016).

Although COSUP makes provision for patients to obtain methadone at no cost, COSUP clients often described the process to receive the treatment as tedious and too long, prompting some of them to want to buy the medication for themselves. The cost of methadone, however, was a prohibitive factor and beyond the reach of many. therefore, they followed the self-funding route.

'The medication is expensive. You find that when you advise parents, they find that they can't afford on a monthly basis to buy the medication for their young adults or their children.' (FGD1, participant 4)

Not all communities have easy access to COSUP centres, and some treatment seekers have to travel long distances to access these healthcare services, incurring transport costs in the process.

'They [healthcare services] are far away from where they [people using substances] are, so it's too much for them in order to find money.' (FGD1, participant 6)

Therefore, the cost of travelling to get to these healthcare centres was a hindering factor.

5.1.1.6 Inadequacy of Substance Use Treatment Services and Resources. Participants alluded to the notion that communities were generally under-resourced to adequately deal with the substance use challenge. The shortages ranged from healthcare personnel to services/facilities.

5.1.1.6.1 Shortage of Healthcare Personnel. A shortage of healthcare personnel was cited as one of the obstacles to utilisation of substance use healthcare. According to the participants, some sites had inadequate personnel, and this negatively impacted on the health delivery system. One participant observed:

'COSUP sites lack enough workers. Sometimes they don't have social workers that work full-time, or they are short of clinical associates that work full-time.' (FGD1, participant 4)

As a result of the lack of enough healthcare workers, clients might receive suboptimal service.

5.1.1.6.2 Tedious Processes. The participants highlighted that the long waiting lists, coupled with the extensive, but necessary, prerequisite and pre-medication assessments by healthcare workers, resulted in tedious treatment registration and treatment initiation processes. The participants were critical of the treatment initiation process and raised concern about the time it took for a patient to be included in the COSUP client database. Potential

patients needed to see the community health workers, the clinical associates, social workers, and other healthcare staff, and sometimes in different places and locations. As a result, they perceived this to be a long and cumbersome process that deterred clients from seeking treatment.

'So, for them not to come is because they are made to wait for a long time for sessions where they must see doctors; they must see clinical associates, they must see the social workers. So, for them, they won't wait for that long.' (FGD1, participant 8)

During the FGDs, participants expressed disappointment about the fact that no immediate help was available. Participants noted with dismay that clients sometimes had to wait for as long as six weeks before receiving treatment.

'Another obstacle is the procedure [registration to enter the treatment programme].' (FGD2, participant 5)

'Firstly, I would say low initiating of our clients is because of the clients not wanting to be involved with the treatment because there are many things that are being asked from you.' (FGD1, participant 5)

'I would personally say for users not to come for treatment …. the reason lies with the way our system is working; it takes longer for them to get the medication.' (FGD1, participant 8)

Most participants found the six weeks waiting period too lengthy. Although the process of admission and initiation into the treatment programme was complex in that it required comprehensive medical and psychological assessments, the tedium of the process at COSUP had further been worsened by inefficiencies that were partly as a result of inadequate human and material resources. The aspects mentioned became additional deterrents to patients who were already reluctant and resistant to seek treatment for SUDs.

5.1.1.6.3 Shortages of Services/Facilities. Understaffing exacerbated the challenge of a lack of adequate healthcare services/facilities.

'So, if we can have COSUP facilities because they are so few and our township is too big and needs more sites.' (FGD1, participant 6)

Safe houses to enable in-patient treatment are not available under the COSUP programme and, according to the participants, social services were difficult to access from the street and for those who were homeless.

'I don't know, but if you guys can kind of get them a place to stay because there is no way you can leave substance without social services and that is very important at the sites if there could be places for people to stay.' (FGD1, participant 7)

'But I feel like there is a need for facilities that cater for guys who are here in COSUP who want to be in confined spaces but want the methadone just like everyone else who is getting the methadone outside. And then, after a duration of time, maybe the three months, six months they get out [of the facility]. They are taught the triggers; behaviour change interventions and everything, and then when they come out they will know how to conduct themselves.' (FGD2, participant 4)

Therefore, it seemed that patients would prefer safe houses as an additional prevention measure to avoid relapses and triggers.

5.1.1.7 Lack of Moral Support. The young adults using substances did not get the moral support they needed to pull through and complete their recovery journeys. In the context of the present research, it was revealed that moral support described the support provided by families and communities.

5.1.1.7.1 Lack of Family Support. From the remarks made by participants, it was gathered that substance use patients felt discouraged and demotivated because of the conduct and attitude of their family members and the communities in which they lived. There was

little support from their families, and some were even being disowned by their families. Participants experienced that recovery was made even more difficult without the moral support and motivation of their families and the community.

'Their families no longer want to help with the journey to recovery.' (FGD1, participant 4)

'Children look at you and they make fun of you; they don't respect you. Your peers, they look at you, they don't respect you, your elders, they look at you, they don't respect you. So now there is no motivation there to at least think of ways of how to actually help yourself.' (FGD1, participant 4)

'And when we come, we are seeking help and we are seeking motivation from others and those same people [families] who are supposed to be helping us, they discourage us.' (FGD2, participant 4)

5.1.1.7.2 Lack of Community Support. According to the young adults using substances, when they eventually sought treatment, they did not get the necessary moral support from the community. Their peers, who had not yet availed themselves for treatment, observed this and became discouraged and refrained from seeking treatment. To them, treatment had a negative connotation; it was an ordeal they did not want to experience. Therefore, they did not want to join a treatment programme.

'This is how most of these individuals get lost when they have everybody criticising them. Nobody is supporting, everybody is judging, not advising [us, the people using substances].' (FGD2, participant 5)

'For us, now trying to live without substances it's a struggle on its own; that is why we need support, we need support structures for us to take baby steps, and try to live just like everybody else.' (FGD2, participant 4)

As evidenced by the participants' remarks quoted above, young adults using substances were being subjected to constant criticism and were being blamed for their condition.

5.1.1.7.3 Culture and Religion/Spirituality as a Barrier to Utilisation of Medical Treatment Interventions. Religion refers to interest in or a system of faith and worship that is based on collective beliefs and values. Spirituality focuses more on transcendence and the recognition that there is something 'greater' than the self, that there is something more to being human than sensory experience, and that nature as a whole is divine (Wald & Calhoun-Brown, 2014). The relationship between culture and religion/spirituality permeates all the dimensions of human culture and community (Platovnjak, 2017). Culture and spirituality are recognised as important elements in the provision of culturally competent mental health services to populations that are diverse in terms of ethnicity and religion (Tewari, 2008). One of the participants expressed the following view about religion and spirituality:

'From personal experience that is shared amongst the majority of substance users, we have this belief that there is a link between the spiritual and substances and ourselves. We do believe that it is to your advantage and it helps you better if you are going to unite yourself with either the church or calling on a higher power to help you to get over these SUDs. So, most of us feel like it [the use of substances] is a demon. It has a connection with spiritually unclean beings; some who believe more traditionally even say they have been bewitched, so I certainly believe that to a certain extent that there is a great link to spiritual, religious forces and SUDs.' (FGD2, participant 5)

The perception that religious/spiritual interventions were more effective than medical treatment interventions was highlighted by some participants who had the experience of being referred to religious pastors for treatment. One participant expressed the following opinion:

'I am talking from a personal experience because I once tried to quit and I went as far as to the hospital. At the hospital, my stepmom is a nurse and there they told her, let's refer him to some pastor, the pastor is helping kids there. When I went there, they wanted me to quit substances and they don't believe in medical things. I told them there that I want methadone, and they said no. They said he wants to leave another drug to get another drug.' (FGD2, participant 4)

Participants expressed the view that religious/spiritual interventions, such as pastoral services and prayers, were pivotal in promoting significant sobriety and preventing relapses.

'I found it helpful when I was going through my recovery process and when I stopped, I found that I started relapsing a little bit. So I think they [religious/spiritual interventions] are important, and we know that, as humans, we have different beliefs, cultures.' (FGD1, participant 4)

Whereas some participants believed that medical treatment interventions had to be aborted in favour of religious/spiritual interventions, other participants had a more reconciliatory approach, believing that spiritual interventions should complement medical treatment in order to enhance treatment outcomes. The literature also suggests that this integrative model is effective in treating SUDs (Carelse & Green, 2019). Several participants were of the view that in order to achieve better treatment outcomes, voluntary spiritual groups had to be an indispensable component of a treatment programme.

'I think, whatever you do, you can take medication but you must also go to church so that you can pray so that God can help you to recover. I think church is a good thing, that's what I can say.' (FGD1, participant 3)

'I don't know how they [religion and harm reduction] can be integrated in the harm-reduction programmes but I think they are very important in the recovery process.' (FGD1, participant 4)

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Despite some participants rallying behind the sole use of a religious/spiritual intervention before following a biomedical approach, a few participants supported the sole use of a medical approach. During an FGD, one participant mentioned the following:

'I would say it depends on an individual when it comes to issues of traditional, religious, cultural and spiritual beliefs in relation to getting help when suffering with SUDs but I personally would go with researched and proven initiatives such as OST.' (FGD1, participant 5)

Some of the FGD participants expressed the view that SUDs and spirituality were often linked, and that spirituality could be a barrier that prevented the use of medical treatment interventions such as the ones offered by COSUP. Culture and religion in the community often dictated spiritual solutions rather than medical treatment for SUDs because of the belief that substance use was spiritually rooted and that people who used substances needed spiritual solutions to help them overcome their problem. It seemed that the participants believed that religion was not only a barrier to treatment but also a resource that could enhance successful treatment (Carelse & Green, 2019).

5.1.2 Effectiveness of the COSUP Intervention

The participants, being peer educators in the COSUP project, were asked about their opinion of the effectiveness of the COSUP intervention they were involved in. In this regard, two themes emerged, namely, the success of the COSUP programme, and a feasible alternative to abstinence-only approaches.

These themes are discussed briefly based on insights gained from the participants' observations during the FGDs.

5.1.2.1 Success of the COSUP Programme. Participants in the FGDs held the view that their lives had been transformed through COSUP's substance use programme. Before

entering the COSUP programme, many participants were in a state of hopelessness and were staring down the barrel of failure and condemnation.

'We were written off like cars.' (FGD2, participant 1)

However, the COSUP intervention offered them a glimmer of hope for a better future. Participants believed they had regained their dignity and sense of purpose. There was a shared feeling that COSUP had had a significant positive and transformational effect on peoples' lives.

'That is why these kinds of treatments are very useful. If they were not here, we could still be in the streets. We were not going to be able to add value to society as we are doing now. We were going to be failures and we would not be having wives or kids, but now, because of this programme we are normal and just like anybody else.' (FGD2, participant 4)

'I have seen people's lives being overturned for the better through these initiatives such as the OST.' (FGD1, participant 5)

The participants mentioned above indicated that COSUP had effected a positive change in their lives. There was a conviction that the COSUP intervention really worked.

The responses of the participants showed that, although there were some constraints in COSUP's operations due to resource gaps, there had been some notable accomplishments through COSUP's resource mobilisation. Participants related that they had been able to access methadone free of charge through COSUP's OST programme. COSUP had also been providing free needles and syringes through the NSP. This had been made possible through COSUP's resource mobilisation efforts. As an acknowledgement of the provision of free medication by COSUP, some participants remarked as follows:

'In COSUP, the medication is provided freely, but there are those ones who are self-funded, although the majority are funded.' (FGD2, participant 4)

'People have been getting the medication for over three years here in COSUP, and we see changes in them, we see they are able to function normally just like everyone else.' (FGD2, participant 5)

5.1.2.2 Feasible Alternative to the Abstinence-Only Approach. Although there are disparities between the abstinence-only and the harm-reduction philosophies, a significant number of participants preferred the harm-reduction approach offered by COSUP, stating that it was more flexible and feasible compared to the traditional abstinence-only concept usually used in most in-patient rehabilitation centres.

'I went to rehab many times and it never worked but just coming here and learning about harm-reduction process, it gave [me] another perspective on how to look at things.' (FGD1, participant 4)

'I feel like this programme is extremely useful. The only way that I can bring you to that realisation is that, take a look at rehab facilities and their extreme failure rate. They have estimated that rehab facilities have 98% failure rate.' (FGD2, participant 5)

'To my understanding, harm reduction is one of the new programmes in South Africa. It's useful to our guys, to those who inject and those who don't want to stop using but want to cut down.' (FGD2, participant 7)

The perception was that treatment through COSUP's OST intervention strategies was more effective. Some participants praised the effectiveness of these strategies, even from the very first time they had tried it. On the other hand, the participants blamed rehabilitation centres for high failure rates.

'I went there, and it was soothing new for me. I had just been to rehab to kick my habit but when I tried it [COSUP] the first time, it worked first time. So, for me it was something new but a better solution from what I was doing over and over again.' (FGD1, participant 4)

5.1.3 Increasing Motivation for Help-Seeking

This third theme, which was identified from the FGDs, related to the participants' recommendations to overcome treatment barriers. The theme is given with the results of phase 3 results.

5.2 Phase 2: Quantitative Analysis – Questionnaire Findings

The sample size of 206 participants in this study is regarded as acceptable because it is within the proposed range of from 100 to over 1 000 participants. Although the sample size could be argued to be inadequate by some scholars who use the ratio of 1:10 as a rule of thumb, it needs to be mentioned that since the Kaiser-Meyer-Olkin (KMO) test of sampling adequacy was 0.775 (i.e. greater than the minimum cut-off of 0.6), the sample size could be regarded as adequate (Tabachnick & Fidell, 2013). It is suggested that sample sizes in EFA range from three to 20 times the number of variables, and absolute ranges from 100 to over 1 000 participants (Izquierdo Alfaro, 2014). More recent simulation studies have found that EFA must not be entirely tied to sample size considerations alone. Rather, other issues in the data and in the model that work together should be explored. For example, it should be determined how well each variable loads on a single factor and not on others because this can even result in a smaller sample size being required (Izquierdo Alfaro, 2014).

5.2.1 Demographic Data of Respondents

This section presents the demographic details of the participants relating to gender, race and age. It also deals with the use of EFA, reliability analysis as a method to evaluate the characteristics of the questionnaire, the subsequent analysis presenting frequency tables, and independent t-tests using SPSS version 27.

A total of 220 young adults (in the age range of 18 to 29 years) were approached to take part in the research. Eight people declined to participate, citing a lack of interest or time constraints. Six incomplete questionnaires were discarded, leaving a total of 206

questionnaires for statistical analysis. Descriptive statistics reflect on the measures of central tendency and variability, and offer an option for easier data visualisation by making summations of the data set (Proches, 2016). Descriptive statistics were generated using frequencies of the demographic variables, namely, gender, race, and age.

      5.2.1.1 Gender. Of the 206 questionnaires captured for statistical analysis, 171 (83%) were completed by participants who identified themselves as males whereas the remaining 35 (17%) were completed by those who identified themselves as females (see Figure 17). As mentioned in Chapter 4, the sampling frame of COSUP clients, being 21% self-identified females and 79% self-identified males, was representative of the gender composition of the participating sample of 17% self-identified females and 83% self-identified males. In COSUP, this reflects an increase in the treatment participation of women from 10% females in 2016 to over 20% in 2019 (Hugo et al., 2020).

Figure 17

Participants' Composition by Gender
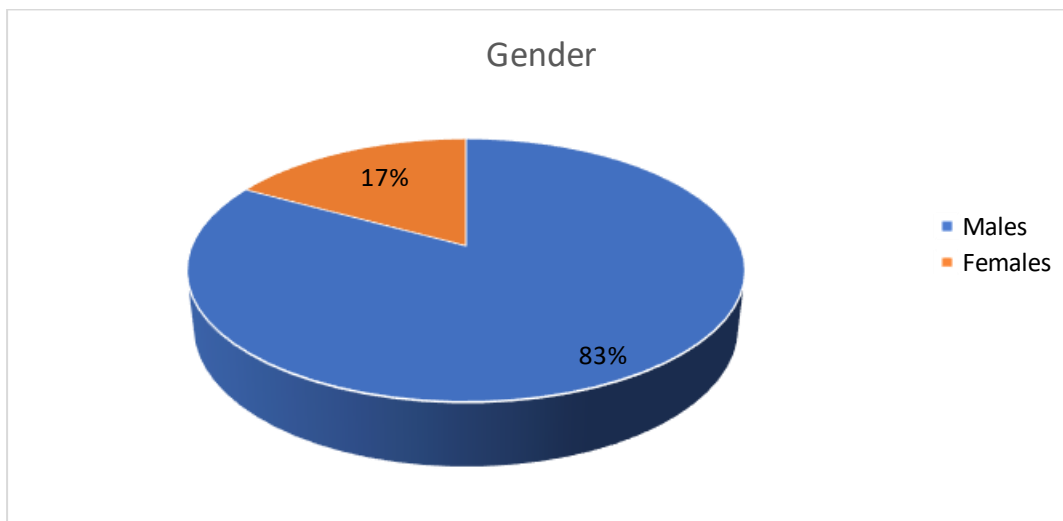
      5.2.1.2 Race. Of the 206 participants, 151 (73.3%) were black people, 7 (3.4%) were white people, 2 (1%) were of Asian descent, and 46 (22.3%) were of coloured descent (see Table 6).

Table 6

Participants' Composition by Race

Variable	Number of Participants	Percentage (%)
Black	151	73.3
Asian	2	1
White	7	3.4
Coloured	46	22.3

5.2.1.3 Age. Young adults in the age range from 18 to 29 years registered on the COSUP programme as OST clients. The average age of the participants was 26 years.

5.2.2 Dimensionality Reduction of the Questionnaire Using Exploratory Factor Analysis

EFA was performed as a dimension-reduction technique (Ray et al., 2021). Ray et al. (2021) elucidate that dimensionality reduction techniques are essentially a compression of a dataset, intended to ease data prediction, analysis, and visualisation. This becomes particularly important when one considers the largely latent nature of psychological data which can create a huge number of variables forming complex data matrices (Mulaik, 2010; Ray et al., 2021). EFA was performed using PCA with varimax rotation (Dien, 2010). PCA is a procedure that is employed to increase the interpretability of datasets whilst at the same time minimising information loss (Dien, 2010).

5.2.2.1 Factorability of the Data Set. There is a need to test the data for factorability before conducting a factor analysis and a multivariate analysis (Hair et al., 2010). In this research, this was done using the KMO test of sampling adequacy and Bartlett's test of sphericity (BTS).

According to Hair et al. (2010), the KMO is used to quantify the degree of intercorrelations among variables and is a prerequisite for identifying factor structures. The KMO value should be between 0 and 1, with figures above 0.6 suggested as sufficient for factor analysis (Tabachnick & Fidell, 2013). Regarding the BTS, the *p*-value should be less than 0.05 for factorability to be acceptable (Hair et al., 2010; Tabachnick & Fidell, 2013). As measures of sampling adequacy and sphericity, the Kaiser-Meyer-Olkin test of sampling adequacy and the Bartlett's test of sphericity were computed and presented in Table 7.

Table 7

Measures of Sampling Adequacy and Sphericity – KMO and BTS

Kaiser-Meyer-Olkin test of sampling adequacy		.775
Bartlett's test of sphericity	Approximate chi-square	1632.490
	Degrees of freedom	325
	Statistical Significance (Sig).	.000

As indicated in Table 7, the KMO was 0.775, (i.e. greater than the threshold value of 0.6) and the BTS was statistically significant (*p*-value <0.05), suggesting that the data were appropriate to perform factor analysis (Hair et al., 2010).

5.2.2.2 Exploratory Factor and Reliability Analysis Results. EFA is a multivariate statistical technique that aims to identify the smallest number of hypothetical constructs/dimensions that explain the covariation observed within a set of measured variables (Watkins, 2018). Factor loading serves as a data reduction method designed to explain the correlations between observed variables using a smaller number of factors (Watkins, 2018), and the factor loadings form part of the outcomes.

The factor loading of a variable quantifies the extent to which the variable is related to a given factor (Ferrando & Lorenzo-Seva, 2018). Loadings close to -1 or 1 generally indicate that the factor strongly influences the variable, whereas loadings close to 0 indicate that the

factor has a weak influence on the variable (Ferrando & Lorenzo-Seva, 2018). Some

variables may have high loadings on multiple factors.

Using Kaiser's eigenvalue criterion to determine the underlying components, the

analysis yielded seven factors, explaining a total of 59.83% of the variance in the data (Yong

& Pearce, 2013). This is graphically depicted in the scree plot in Figure 18.

Figure 18

Scree Plot
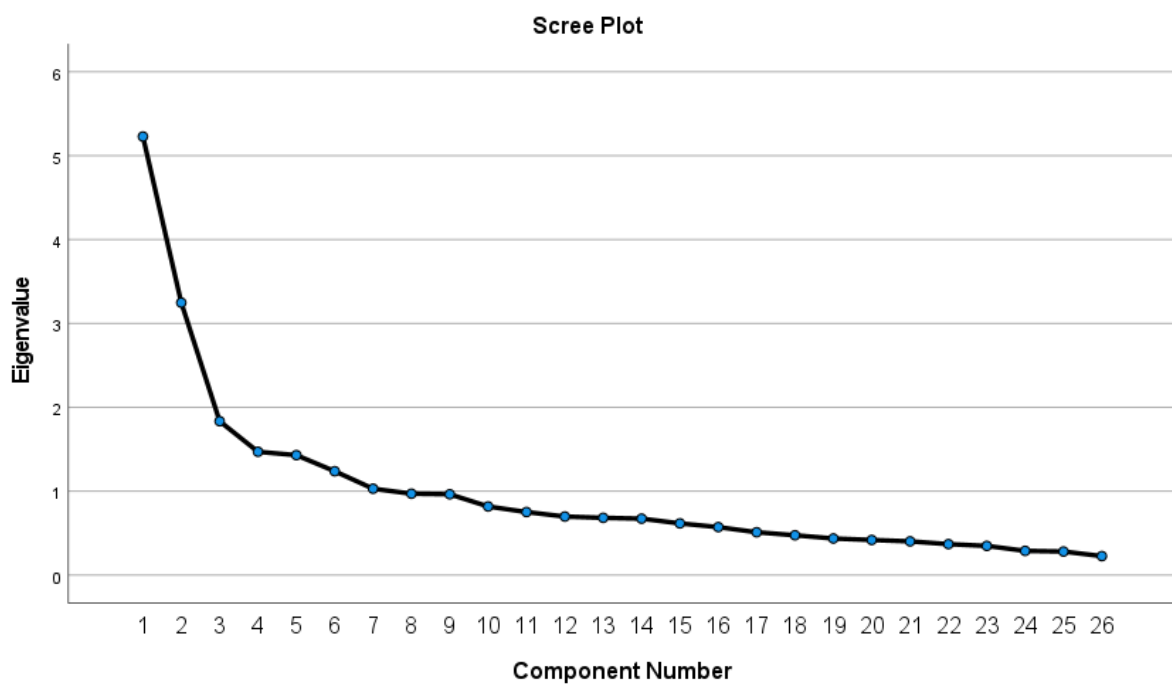
The scree plot in Figure 18 shows how the seven-factor solution emerged. From the

scree plot presented, it can be observed that the eigenvalue cut-off of 1 (Ledesma et al., 2015)

accounts for the seven-factor solution presented by the researcher.

Communalities are an important component of EFA (Akinshipe & Aigbavboa, 2020)

and the next section presents data on communalities obtained after performing EFA. Table 8

presents communalities indicating how much variance is shown by each item. Statisticians

recommend the retention of items with a threshold value of 0.3 (Akinshipe & Aigbavboa,

2020). As indicated in Table 8, all items retained had a value greater than 0.3.

Table 8

Communalities

Question Number	Initial	Extraction
Q5	1.000	.652
Q4	1.000	.608
Q3	1.000	.643
Q2	1.000	.607
Q1	1.000	.549
Q15	1.000	.526
Q17	1.000	.481
Q16	1.000	.488
Q14	1.000	.516
Q18	1.000	.493
Q8	1.000	.640
Q9	1.000	.599
Q6	1.000	.610
Q7	1.000	.606
Q25	1.000	.715
Q23	1.000	.703
Q24	1.000	.610
Q12	1.000	.667
Q11	1.000	.669
Q10	1.000	.554
Q26	1.000	.646
Q27	1.000	.633
Q22	1.000	.433
Q28	1 000	.654
Q30	1.000	.589
Q29	1.000	.594

Note. The extraction method used was PCA.

Factors with inadequate measuring characteristics (two or less variables) for statistical

identification of a factor in the rotated component matrix (see Appendix H) were discarded.

Reliability was assessed in this study by calculating Cronbach's alpha for each

construct (see Table 9). According to Taber (2018), a Cronbach's alpha threshold value of

0.70 generally indicates moderate to high reliability, indicating internal consistency of the

scale or test used. As can be noted in Table 9, most of the factors in this study had

Cronbach's alpha values of around 0.7.

Table 9

Exploratory Factor and Reliability Analysis Results

Variables	Factor Loadings	Eigen-values	% of Variance Explained	Cronbach's Alpha α
1.Labelling and rejection in the community				
5) We feel not accepted across many different places and settings.	.764			
4) I feared losing my identity by being viewed as an outcast.	.734			
3) I feared the shame and embarrassment of being called names.	.727	5.229	20.200	.796
2) I was afraid the community would isolate me.	.724			
1) Healthcare workers mistreat people using substances.	.573			
2. Lack of perceived treatment efficacy				
15) I didn't think treatment would do any good.	.691			
17) Our families encourage us to seek help from pastors and religious leaders.	.639			
16) Churches provide better services.	.613	3.248	11.755	.661
14) Treatment does not work.	.557			
18) Substance use treatment does not help.	.511			
3. Discrimination in the community and from the police service				
8) People using substances are regarded as worthless.	.764			
9) The police abuse their power by ill-treating people using substances.	.722			
6) The community looks down upon people using substances.	.706	1.835	7.333	.756
7) People blame us for our condition. They say it is our own fault.	.679			
4. Denial and unreadiness to give up				
25) I liked using substances and was not ready to give up.	.808			
23) My substance use seemed fairly normal to me.	.783	1.471	5.847	.712
24) I didn't think I needed any help.	.631			
5. Information gap				
12) I didn't know there is help available.	.771			
11) I didn't know where to go for help.	.760	1.431	5.722	.697
10) The police lack information about treatment services so you can be unfairly arrested.	.658			

Variables	Factor Loadings	Eigen-values	% of Variance Explained	Cronbach's Alpha α
6. Privacy concerns				
26) I thought I could handle it on my own and did not want people to know what I was going through.	.745	1.239	4.956	.628
22) I didn't want to talk about my personal life with other people.	.580			
7. Lack of resources and support				
30) We don't get moral support from our families.	.762	1.031	4.014	.631
27) Substance use healthcare sites are too few and far from where I stay.	.629			
29) Substance use healthcare sites lack enough healthcare workers.	.654			
28) There is fragmented service.	.574			

Note. *Total % of variance explained = 59.83%

The development of the seven-factor solution and the naming of the factors were done based on the outputs of the EFA. The scree plot (for which a threshold value of equal or greater than 1 for the eigenvalues was used) as presented in Figure 18, shows how the seven-factor solution emerged. The factors were named according to the items that loaded highly on each factor, whereas the items that had low internal consistency in a factor were discarded.

Table 9 shows that the factor loadings were mostly above 0.6, suggesting that they were strong enough to measure their respective factor (Costello & Osborne, 2005). The reliability scores of the factors in Table 9 averaged around 0.7, which were considered statistically acceptable (Costello & Osborne, 2005).

Child (2006) recommends that three or more measured variables are ideally needed for the statistical identification of a factor. From the factor analysis performed (see rotated component matrix in Appendix H), it can be observed that factors that were made up of less than three items were discarded. As indicated in the rotated component matrix, there was a given factor that had two items (31 and 32), and another factor that also had two items (19 and 20), whereas item 21 appeared as a single-item factor. All five items were discarded from the questionnaire. Item 13, 'Harm reduction is another way of promoting substance use', was

also discarded because it was not theoretically measuring/loading consistently, and not offering the best fit (Child, 2006) with what the other items in the factor 'Lack of resources and support' were measuring. 'Privacy concerns' was the only exception; in that it is the only two-item factor that was presented. However, it needs to be observed that, originally, this was a three-item factor before item 27 'Substance use healthcare sites are too few and not available where I live' loaded well with the factor 'Lack of resources and support.' Although it is generally accepted that at least three items should be available to constitute a factor, this may work differently in different situations, and hence the decision to include 'Privacy concerns', which was originally a three-item factor and was reduced to a two-item factor. According to Gosling et al. (2003) and Shepherd et al. (2015), short item scales (e.g. two-item scales) can sometimes be as valid as the longer item scales, even suggesting that the supposed psychometric superiority of longer scales does not always translate into practice.

In the next section, young adults' perceptions of various barriers to substance use treatment are presented.

5.2.3 Perceptions of Barriers to Help-Seeking and Treatment

The mean values given illustrate the relative strength of the different items. A high mean value corresponds with a high influencing strength of the item as a barrier to help-seeking and treatment. As given in Table 10, the questionnaire items were rank-ordered according to their relative strength in constituting barriers. For the purpose of analysing the responses, the options 'agree' and 'strongly disagree' were used to indicate a respondent's acceptance or confirmation of an item.

The seven factors which ranked the highest as barriers are presented in Table 10 according to their relative strength. The summated mean values which were used for the ranking are also given in Table 10.

Table 10

Relative Strengths of Barrier Factors

Barrier Factor	Summated Mean	Rank
Discrimination in the community and from police	2.261	1
Information gap	1.924	2
Labelling and rejection in the community and in healthcare settings	1.660	3
Lack of perceived treatment efficacy	1.504	4
Privacy concerns	1.465	5
Lack of resources and support	1.433	6
Denial and unreadiness to give up	1.306	7

As indicated in Table 10, which ranks the barrier factors according to their relative influence in descending order, two of the most significant barriers to help-seeking and treatment (ranked first and third respectively) were discrimination in the community and from the police service, and labelling and rejection in the community. These two were stigma-related factors. The participants experienced community blame, judgement, and stereotyping relating to substance use as the important barriers to help-seeking.

Lack of information and an information gap relating to available services were also prominent barriers: participants did not know how to access help. The unwillingness of users of substances to go for treatment, and their perception that treatment was, in any case, unsuccessful, were additional barriers.

The lack of perceived treatment efficacy, privacy concerns, and the lack of resources and support were respectively ranked as the fourth, fifth and sixth most influential barriers to treatment. The factor named denial and unreadiness to give up, which was a personal barrier, was ranked the least significant barrier factor. One possible reason why this barrier had a low ranking could be that the participants were in treatment and had, therefore, by implication

already worked through the processes of denial and unreadiness to give up. In the context of people who have not sought help, this factor may be more prominent.

It is important to highlight that one barrier item, namely, 'There is fragmented service', is separately presented as a stand-alone item. The item was extracted from the 'Lack of resources and support' scale which had low internal consistency despite the fact that the said item had the highest mean value (2.51) of all the items in the different scales.

In the next section, the young people's perceptions relating to the identified barrier factors are discussed (in no specific order).

5.2.3.1 Discrimination in the Community and by the Police. The participants experienced discrimination in the community to be the most significant barrier, apart from the experience of fragmented and ineffective services. The young adults' articulations of how they perceived discrimination in the community and by the police are presented in Table 11.

Table 11

Discrimination in the Community and by the Police

Description of Item	Strongly Disagree	Somewhat Agree	Agree	Strongly Agree	Mean	Standard Deviation	Rank
The community looks down upon people using substances.	11 (5.3%)	26 (12.6%)	59 (28.6%)	110 (53.4%)	2.30	.887	1
People blame us for our condition. They say it is our own fault.	11 (5.3%)	27 (13.1%)	68 (33.0%)	100 (48.5%)	2.25	.879	2
People using substances are regarded as worthless.	14 (6.8%)	25 (12.1%)	62 (30.1%)	105 (51.0%)	2.25	.918	3
The police abuse their power by ill-treating people using substances.	11 (5.3%)	31 (15%)	61 (29.6%)	103 (50.0%)	2.24	.889	4
Summated Mean				2.261			

As indicated in Table 11, the results attest to the significant influence of discrimination in the community and by the police as a barrier to help-seeking and treatment

because more than 80% of the respondents agreed or strongly agreed with the items relating to discrimination. Thus, discrimination in the community and by the police service was shown as having a significant influence on help-seeking behaviour. There was strong evidence that respondents feared being harassed by the police and being unlawfully arrested. The majority (79.6%) of the respondents endorsed the perception that the police abused their power by ill-treating people using substances, indicating that this perception was a significant barrier to seeking treatment (mean value = 2.24).

5.2.3.2 Labelling and Rejection in the Community. Labelling and rejection in the community and in healthcare settings were identified as a significant barrier that influenced help-seeking and treatment. The statistics are presented in Table 12.

Table 12

Labelling and Rejection in the Community and in Healthcare Settings

Description of Item	Strongly Disagree	Somewhat Agree	Agree	Strongly Agree	Mean	Standard Deviation	Rank
We do not feel accepted across different places and settings.	17 (8.3%)	32 (15.5%)	83 (40.3%)	74 (34.9%)	2.04	.920	1
I feared the shame and embarrassment of being called names.	35 (17.0%)	39 (18.9%)	60 (29.1%)	72 (35.0%)	1.82	1.092	2
I feared losing my identity by being viewed as an outcast.	36 (17.5%)	41 (19.9%)	65 (31.6%)	64 (31.1%)	1.76	1.076	3
I was afraid the community would isolate me.	54 (26.2%)	41 (19.9%)	64 (31.1%)	47 (22.8%)	1.50	1.112	4
Healthcare workers mistreat people using substances.	85 (41.3%)	43 (20.9%)	35 (17.0%)	43 (20.9%)	1.17	1.181	5
Summated Mean			1.660				

The results indicated that the item 'We do not feel accepted across different places and settings', which was endorsed by 75.2% of the participants, had the strongest influence on the labelling and rejection factor. Only 8.3% rejected agreeing with this statement outright.

The items 'I feared losing my identity by being viewed as an outcast' (endorsed by 62.7% of the participants) and 'I feared the shame and embarrassment of being called names' (endorsed by 64.1% of the participants) were statements revealing the level of labelling and rejection young people who used substances experienced as barriers to help-seeking.

The participants had different experiences related to healthcare workers. While 62.2% did not agree that healthcare workers mistreated people using substances, 37.7% had experienced mistreatment, which had discouraged them from seeking treatment.

5.2.3.3 Information Gap. The data on this factor is presented in Table 13.

Table 13

Information Gap

Description of Item	Strongly Disagree	Somewhat Agree	Agree	Strongly Agree	Mean	Standard Deviation	Rank
The police lack information about treatment services so you can be unfairly arrested.	31 (15.0%)	23 (11.2%)	55 (26.7%)	97 (47.1%)	2.06	1.089	1
I didn't know where to go for help.	28 (13.6%)	30 (14.6%)	74 (35.9%)	74 (35.9%)	1.94	1.025	2
I didn't know there is help available for people who use substances.	39 (18.9%)	35 (17.0%)	66 (32.0%)	66 (32.0%)	1.77	1.096	3
Summated Mean			1.924				

As indicated in Table 13, 73.8 % of young adults using substances reported that the police lacked adequate information on substance use treatment services, and that, as a result, they sometimes indiscriminately and unlawfully arrested individuals presenting themselves for treatment and services. This deterred these young people from seeking help and treatment. It was found that 64% of the respondents also lacked information on the availability of help services, and that 71.8% did not know where to access help or treatment.

5.2.3.4 Privacy Concerns. This factor measured the influence of privacy as a determinant of help-seeking and treatment for people using substances, as presented in Table 14.

Table 14

Privacy Concerns

Description of item	Strongly disagree	Somewhat agree	Agree	Strongly agree	Mean	Standard Deviation	Rank
I thought I could handle it on my own and did not want people to know what I was going through.	42 (20.4%)	39 (18.9%)	54 (26.2%)	71 (34.5%)	1.69	1.137	1
I didn't like to talk about my personal life with other people.	42 (20.4%)	52 (25.2%)	54 (26.2%)	58 (28.2%)	1.24	1.101	2
Summated Mean			1.465				

Privacy concerns hindered 54.4% of the respondents to seek help as they did not like to talk about their personal life to other people. Of the respondents, 60.7% were of the view that help was not necessary because they thought they could manage the situation on their own, and did not want others to know what they were going through.

5.2.3.5 Lack of Perceived Treatment Efficacy. Five items were measured on treatment efficacy as a barrier to help-seeking and treatment. This is presented in Table 15.

Table 15

Lack of Perceived Treatment Efficacy

Description of Item	Strongly Disagree	Somewhat Agree	Agree	Strongly Agree	Mean	Standard Deviation	Rank
Substance use treatment does not help.	38 (18.4%)	48 (23.3%)	51 (24.8%)	69 (33.5%)	1.73	1.114	1
Our families encourage us to seek help from pastors and religious leaders.	47 (22.8%)	41 (19.9%)	56 (27.2%)	62 (30.1%)	1.65	1.137	2
Churches provide better services.	53 (25.7%)	42 (20.4%)	50 (24.3%)	61 (29.6%)	1.58	1.165	3
I didn't think treatment would do any good.	60 (29.1%)	41 (19.9%)	43 (20.9%)	62 (30.1%)	1.52	1.200	4
Treatment does not work.	105	27	34	40	1.04	1.207	5

Description of Item	Strongly Disagree	Somewhat Agree	Agree	Strongly Agree	Mean	Standard Deviation	Rank
	(51.0)	(13.1%)	(16.5%)	(19.4%)			
Summated Mean				1.504			

The item 'Substance use treatment does not help' was endorsed by 58.3% of the participants. This was an indication that there could be some mixed feelings about the efficacy of treatment. Of the respondents, 57.3% indicated that their families encouraged them to seek alternative help from pastors, religious leaders, or the church – a factor that was an impediment to help-seeking and treatment. This behaviour of families could discourage young adults from seeking treatment.

5.2.3.6 Lack of Resources and Support. The findings on lack of resources and support as a barrier to help-seeking and treatment among young adults living with substance use disorders are presented in Table 16.

Table 16

Lack of Resources and Support

Description of Item	Strongly Disagree	Somewhat Agree	Agree	Strongly Agree	Mean	Standard Deviation	Rank
We don't get moral support from our families.	43 (20.9%)	33 (16.0%)	74 (35.9%)	56 (27.2%)	1.69	1.086	1
Substance use healthcare sites are too few and far from where I stay.	65 (31.6%)	47 (22.8%)	47 (22.8%)	47 (22.8%)	1.37	1.152	2
Substance use healthcare sites lack enough healthcare workers.	76 (36.9%)	41 (19.9%)	52 (25.2%)	37 (18.0%)	1.24	1.135	3
Summated Mean				1.433			

Out of the respondents, 63.1% reported that they did not get moral support from their families. This was an indication that lack of support was an active barrier to help and treatment services among young adults using substances.

Of the respondents, 45.6% reported that there were too few services where they stayed, and 43.2% also indicated that there was a lack of healthcare workers at healthcare sites. These situations could be attributed to a lack of adequate resources.

5.2.3.7 Denial and Unreadiness to Give Up. The factor of 'Denial and unreadiness to give up' was the least endorsed barrier to help-seeking and treatment.

Table 17

Denial and Unreadiness to Give Up

Description of Item	Strongly Disagree	Somewhat Agree	Agree	Strongly Agree	Mean	Standard Deviation	Rank
My substance use seemed fairly normal to me.	62 (30.1%)	45 (21.8%)	55 (26.7%)	44 (21.4%)	1.39	1.129	1
I didn't think I needed any help.	73 (35.4%)	43 (20.9%)	53 (25.7%)	37 (18.0%)	1.26	1.126	2
I liked using substances and was not ready to give up.	76 (36.9%)	43 (20.9%)	44 (21.4%)	43 (20.9%)	1.26	1.164	3
Summated Mean			1.306				

About 48.1% of the respondents confirmed that their substance use seemed fairly normal to them, and, therefore, they did not believe that they needed help. The modest means in respect of the denial items, however, indicated that the respondents were not inclined to believe that denial was a strong barrier to help-seeking and treatment. Compared to other factors, denial was not highly rated as a barrier. This was confirmed by the fact that as many as 30.1% and 35.4% of the respondents respectively opted for the 'strongly disagree' response to the items 'My substance use seemed fairly normal to me' and 'I didn't think I needed any help.'

The responses confirming the item 'I liked using substances and I was not ready to give up' was endorsed by 42.3% of the respondents, slightly surpassing the 36.9% of the respondents who indicated rejection. This was an indication that respondents' unreadiness to give up had a relatively modest influence as a barrier to help-seeking.

The item of fragmented service is presented next as a single important variable, but not as a factor. The reasons why fragmented service was presented as a stand-alone variable are also outlined.

Table 18

Fragmented Service

Description of Item	Strongly Disagree	Somewhat Agree	Agree	Strongly Agree	Mean	Standard Deviation
There is fragmented service.	35 (17.0%)	25 (12.1%)	43 (20.9%)	103 (50.0%)	2.51	1.180

The item 'There is fragmented service' was presented as a stand-alone item. It was a very important barrier to treatment as 70.9% of the respondents endorsed it. This item was more important than other items measuring the lack of resources. As a result, the scale of a lack of resources had a low internal consistency when it included this item. The item relating to fragmented services scored the highest, showing respondents' frustration with the lack of effective services. A fragmented service generally refers to systemic misalignment and a lack of coordination in providing a collaborative network in delivering services to a particular patient population (Enthoven, 2009). The theme of fragmented services differs from the theme of the lack of resources in that the former may also mean that even in settings where resources are available, the lack of coordination, planning, and prioritisation in the distribution and utilisation of resources may result in substandard services (Enthoven, 2009).

5.2.4 Role of Gender in the Perception of Treatment Barriers

One of the research objectives of the study was to investigate the influence of demographic variables on young adults' perceptions of the barriers to help-seeking and treatment. Independent t-tests were used to compare the mean scores of different groups. No significant difference was found in the rating of treatment barriers in respect of demographic variables such as race. The age variable for this study was limited to the range of 18 to 29 years, and was thus not compared.

However, the differences between gender groups were compared. A value of $p < 0.05$ was regarded as a statistically significant difference in the independent samples t-test.

Table 19

Group Statistics on Results of Independent Sample t-Test Between Males and Females

Scale	Gender	Mean	Std. Deviation	p
Discrimination in the police and from the community	Male	1.4620	.71596	.000
	Female	2.6286	.37930	
Labelling and rejection in the community and in healthcare settings	Male	2.1637	.68509	.000
	Female	2.7357	.41098	
Information gap	Male	1.8460	.84733	.003
	Female	2.3048	.72927	
Privacy concerns	Male	1.5614	.78505	.560
	Female	1.6667	1.00000	
Lack of perceived treatment efficacy	Male	1.4480	.73199	.019
	Female	1.7771	.83704	
Lack of resources and support	Male	1.3119	.81821	.607
	Female	1.4095	1.05125	
Denial and unreadiness to give up	Male	1.2593	.87431	.153
	Female	1.5333	1.04224	

Note. Std = Standard.
$p < 0.05$ = Significant value.

Males and females differed significantly regarding their perception of discrimination in the community and from the police (p-value < 0.001), labelling and rejection in the community and in healthcare settings (p-value < 0.001), information gap (p-value $= .003$), and lack of perceived treatment efficacy (p-value $= .019$). Females regarded these barriers as more important than males did. Males and females did not differ significantly as regards the perception of denial and unreadiness to give up, privacy concerns, and lack of resources and support.

To establish the strength of the effect size difference between the two groups), the eta-squared value was calculated using the following formula:

$$\eta^2 = \frac{t2}{t2 + (N1 + N2 - 2)}$$

The eta-squared value was then compared with Cohen's (1988) guidelines which state that .01 is a small effect, .06 is a moderate effect, and .14 is a large effect (see Table 20).

Table 20

Independent Samples Test – Levene's Test for Equality of Variances and Eta-squared Values

		F	Sig.	t	df	sig. 2t	η^2
Discrimination in the community and from the police	Equal variances assured	14.861	.000	-9.362	204	.000	
	Equal variances not assured			-13.837	91.899	.000	.484
Lack of perceived treatment efficacy	Equal variances assured	1.635	.202	-2.364	204	.019	
	Equal variances not assured			-2.163	45.255	.036	.02
Labelling and rejection in the community and in healthcare settings	Equal variances assured	11.704	.001	-4.761	204	.000	
	Equal variances not assured			-6.574	78.589	.000	.175
Information gap	Equal variances assured	1.180	.279	-2.983	204	.003	
	Equal variances not assured			-3.294	54.552	.002	.050

Note. 'Privacy concerns', 'lack of resources and support', and 'denial and unreadiness to give up' were not included in Table 20 because they did not show significant differences in the t-tests.

In Table 20, F is the test statistic of Levene's test, sig stands for statistical significance, t is the computed test statistic, df stands for the degrees of freedom, sig 2t is sig (2-tailed), and eta-squared value is η^2.

The different perceptions of males and females regarding discrimination in the community and by the police as well as labelling and rejection in the community and in healthcare settings showed a large effect in relation to barriers that influenced the help-seeking and treatment of users of substances. Respectively, these items showed eta-squared

values of .484 and .175 (> .14). In particular, females perceived much more discrimination in the community and by the police than males did.

Males' and females' different perceptions of the information gap showed a moderate effect, with an eta-squared value of .50 (< 0.6). In respect of the lack of treatment efficacy there was a small effect, with an eta-squared value of .02. The other variables did not show significant differences.

However, the distinct numerical supremacy of males (171) over females (35) could have affected the accuracy of the results in the study and might have compromised the quality of the results.

5.2.5 Summary of Quantitative Results

After performing EFA, seven barrier factors were identified that could be used to identify and quantify barriers to treatment. The summated means for the seven barrier factors were established and ranked according to their influencing strengths as barriers to help-seeking and treatment. The factors of fragmented service and of stigma (measured as discrimination and labelling and as lack of information about treatment services) emerged as the most significant barriers to treatment, whereas the factor of denial and unreadiness to change had the least influence.

Gender had an effect on how some barriers to help-seeking and treatment were perceived. Stigma and the lack of information were perceived as more prominent barriers among females than among males. This finding may become important in designing interventions and treatment, and may inform strategies that are gender-responsive.

5.3 Phase 3: Semi-structured Interviews

Treatment barriers were explored by conducting FGDs, and the relative strengths of these barriers were then quantitatively measured through the questionnaire. In line with the research aim formulated for the third phase of the study, an explanatory approach using

interpretation and clarification of quantitative results was followed by conducting in-depth SSIs. The SSIs also endeavoured to solicit recommendations for an improved substance use healthcare service. Through holding individual SSIs, the researcher was able to extract in-depth information and gain an understanding about the phenomenon under examination, considering that individuals brought their own unique experiences to the fore and used this platform to tell their distinct stories (Brown & Danaher, 2019). For example, one participant related as follows:

'As addicts we all come from different backgrounds. The way the other one started is not the same way that I started.' (FGD1, participant 2)

Therefore, the researcher had the opportunity to unravel information for the purpose of creating accurate, well-informed codes and themes (Brown & Danaher, 2019). Apart from gaining an in-depth understanding of the data generated in the quantitative phase, the researcher could observe some new dimensions in the data through the SSIs. For example, a general larger focus on cultural aspects, including the role of traditional approaches (e.g. consulting *sangomas* [traditional healers]), emerged as a new dimension of the theme of culture and religion/spirituality that was highlighted in the FGDs and the quantitative data. Fifteen young adults aged between 18 and 29 years participated in individual face-to-face SSIs. The sample was made up of 11 males (73.3%) and four females (26.7%), which translates to a sample that was almost similar to that in the quantitative phase. Two major themes that emerged from the interviews were similar to those that emerged during the FGDs, namely,

1. barriers to treatment and motivations for not seeking help and treatment

2. recommendations for an improved substance use healthcare service.

The next section presents barriers to treatment and motivations for not seeking help and treatment, and recommendations for an improved substance use healthcare service.

5.3.1 Barriers to Treatment and Motivations for Not Seeking Help and Treatment

Themes related to barriers to treatment were identified alongside several other sub-themes, and these are presented in Table 21. Below the table, the themes and sub-themes are discussed and illustrated using quotations from the interviews.

Table 21

Barriers to Treatment and Motivations for Not Seeking Help and Treatment

Theme	Sub-themes
Culture	● Role of traditional healers ● Role of religion/spirituality
Financial costs	● Prohibitive costs of methadone ● Transport costs in travelling long distances to access treatment
Stigma	● Labelling and discrimination
Heavy-handed law enforcement	● Unlawful arrests of users seeking treatment and confiscation of medication and syringes for NSP
Lack of community awareness of substance use treatment services	● Lack of knowledge about available substance use treatment services ● Scepticism about treatment effectiveness
Lack of perceived treatment need	● Denial ● Unreadiness and ambivalence to change

5.3.1.1 Culture. It can be argued that both tradition and culture contribute towards the identification of a particular society (Grimson, 2010). However, whereas culture defines the attributes of a particular society at a particular time and in a particular place, traditional activities are more inclined towards reconnecting society with past practices (Yu & Pirnazarov, 2020).

5.3.1.1.1 Role of Traditional Healers. Traditional medicine refers to the totality of all knowledge and practices, whether explicable or not, used in the diagnosis, prevention, and elimination of physical, mental, or societal imbalance. Traditional medicine relies exclusively on practical experience and observation handed down from generation to generation (WHO, 2017). Although some evidence suggests that traditional healers play a role in providing

effective psychological interventions, especially for mild symptoms of common mental disorders, such as depression and anxiety, there is little evidence to suggest that they change the course of severe mental illnesses such as psychotic disorders (Nortje et al., 2016).

Some interview participants were of the view that traditional beliefs pervaded the utilisation of medication, widely regarded as 'Western medicine'. Participants highlighted that the issues of the application and effectiveness of traditional approaches to the treatment of SUDs were controversial:

'It hinders the whole [treatment] process … most people injecting drugs have hepatitis B or C. When my boyfriend passed on, I realised that he was not receiving any [medical] treatment for substance use like methadone, but instead his aunts were giving him some things [traditional therapy] from sangomas [traditional healers]. But then a lot of these so-called sangomas are fakes, just trying to hustle so I think all that people need is to be educated and sensitised on these matters.' (SSI, participant 5)

'You just need a professional to tell you about the dangers of the things that you are using right now, 'cause the cultural thing is not going to work here. You're talking about the chemical substances and scientific issues here, not the magic of the cultural [cultural beliefs about treatment] and the sangomas.' (SSI, participant 1)

5.3.1.1.2 Role of Religion and Spirituality. Whereas some participants expressed the view that cultural traditional treatment approaches were barriers to formal treatment, others were of the opinion that religion/spirituality also countered efforts of formal treatment.

'Yes it [religion] can sometimes block us from getting help, because people believe that church is one of the first things that is needed for a person to be treated; prayer and attending church. God is needed in the whole thing. Sometimes all you needed was just that belief in Him for things to go well for you.' (SSI, participant 12)

'And it is very important to have a religious belief and to have a relationship with God because we do believe that these drugs have an evil spirit.' (SSI, participant 15)

'It does [prevent one from seeking treatment]; cultural issues, especially in terms of religion. I come from a very spiritual family. Even this methadone, they didn't believe in it [the treatment strategy].' (SSI, participant 3)

Despite the overwhelming responses alluding to the fact that religion/spirituality kept people from seeking treatment in healthcare facilities, there were participants that, nevertheless, held the opinion that the existence of religious beliefs was not a hindrance to help-seeking from healthcare facilities.

'I don't believe our beliefs prevent us [from seeking medical treatment].' (SSI, participant 10)

'It really depends on a person's beliefs, but my belief as a Christian, I saw it better for me to come to COSUP so I can get the help that I need.' (SSI, participant 9)

5.3.1.2 Fragmented Services. Inefficiencies in service delivery were summed up as fragmented services. These ranged from inept registration and treatment initiation services to inadequate healthcare personnel and facilities. Fragmented service was also evident in conflicting health and law enforcement policies (resulting in practices as explained under the theme of the heavy-handedness of police) that resulted in the confiscation of needles and syringes from patients, and in patients being subsequently arrested and detained.

5.3.1.2.1 Logistical Difficulties in Registration and Treatment Initiation Processes. Logistics relate to the process of planning and organising resources to ensure that processes and activities are carried out effectively (Suma et al., 2017). Participants reported experiencing delays in getting registered and initiating treatment. Many of the participants observed other potential clients ending up being frustrated and not seeking help or treatment as a result.

'The process takes a long time before one can get medication and that is the main reason that makes young adults not to come and seek help.' (SSI, participant 2)

'They are too slow with the process! And sometimes you open a file, they take time to put you on treatment and people end up giving up.' (SSI, participant 1)

On being asked to elaborate on the treatment process, one participant shared the following:

'I nearly gave up because of the process. You won't believe I opened a file in September but until January or December it was hard for me to get the treatment! And at that time, I was willing [to stop using heroin]. I wanted to stop for real.' (SSI, participant 1)

Delays in registration and treatment initiation had other implications for patients; for example, their withdrawal symptoms of opioid use caused them severe discomfort (Posselt et al., 2017; M. J. Smith et al., 2015). One participant said:

'Opioid withdrawal is the most hectic thing that you can ever go through. It is painful.' (SSI, participant 5)

The views expressed suggested that some people seeking help and treatment from COSUP found it difficult to bear with the tedious registration process.

5.3.1.2.2 Inadequate Healthcare Workers at COSUP Sites. Several participants in the interviews indicated that there were inadequate numbers of healthcare workers at COSUP, which caused delays in registering clients and in rendering treatment services. In some cases, healthcare workers, such as clinical associates, needed to render services at more than one COSUP site.

'I also think there are too few [healthcare workers] because if you compare it to the addicts around, the addicts are too many. I think they [healthcare workers] are overloaded as they are not enough. Because we are many addicts; and even if I think of seeking help, I think about a lot of things as if it's going to take time.' (SSI, participant 2)

'Indeed, and then now that I am working with them, I can even see it with my eyes that there are a lack of healthcare workers and the COSUP sites are very few, yes.' (SSI, participant 2)

5.3.1.2.3 Inadequate Facilities and Inept Service Delivery. SSI participants also stated that current health facilities could not cope with the demand for services, largely because too few facilities were available, and their geographical distribution was impractical. For these reasons, many potential clients could be at risk of not being able to access treatment.

'You find some people coming from phase 5 and some from Ikageng. It's quite a distance. At least if they could meet them halfway, have another one maybe at phase 11, that would help.' (SSI, participant 6)

'It is true that there are less COSUP sites, and I think they need to have more sites so that people can get help.' (SSI, participant 15)

Concerns were also raised about the conduct and attitude of the healthcare personnel towards substance users. It was the participants' view that laxity and dereliction of duty came into play when healthcare workers dealt with people using substances. One participant shared her ordeal when the healthcare workers told her that her file was lost.

'I was here. I saw the doctor and went through the whole procedure. It was their duty to take care of my file as their client. They were supposed to open a new file but they failed until December this year.' (SSI, participant 1)

Another remark from this participant was:

'That is the situation that you face here. Sometimes you find that all of them are on lunch, just chatting and chilling. And even if you are coming to attend their programme they are just sitting. There isn't that thing that, here is my client, come here my client. Or even the

receptionist doesn't show you the way; you will find your way by asking one another as clients.' (SSI, participant 1)

The participants experienced the healthcare workers' attitudes as indifferent. It was possible that treatment seekers might share with fellow substance-using colleagues, who had not yet presented themselves for treatment, their experiences at the hands of health workers (Kisely et al., 2020). As a result, that would dissuade potential treatment-seekers from going for treatment.

5.3.1.3 Financial Costs. This barrier related to delayed or restricted access to help and treatment due to financial constraints.

5.3.1.3.1 Prohibitive Costs of Methadone. Financial costs referred to the money that users of substances needed in certain circumstances to buy medication such as methadone (McCann et al., 2016). Some of the participants had to take the route of purchasing the methadone themselves. In relation to money needed for treatment, one participant said:

'For example, with methadone, I had to buy it myself. Yes, so not having money would sometimes put me at a disadvantage.' (SSI, participant 9)

On being asked whether finances were ever a significant determinant factor in deciding whether to seek help or not, one participant replied:

'Yes, it did before I knew about the centres that are available now, because methadone is expensive and you have to get a prescription from the doctor, which you will pay the exact amount as if you are going to see the doctor … so the cost was a factor.' (SSI, participant 2)

By implication, people who were not aware of COSUP services might not seek treatment because of the cost of methadone they might have to carry themselves.

5.3.1.3.2 Transport Costs. Some participants regarded transport costs as a barrier to treatment services. According to the participants, COSUP sites were too few and were sometimes located far from where they lived.

'Here we have one [COSUP site] … it's very far for them. So, for some of them they can't even ask for money to get here because it seems like manipulation for money for drugs. They don't trust them. So, when it's nearby, you can just walk there.' (SSI, participant 13)

It seemed to be clear that it was difficult for some young adults using substances to access help and treatment from the sites that were available because they could not afford the transport costs.

5.3.1.4 Stigma. Stigma-related barriers, such as labelling and discrimination, were reported to have a significant influence on help-seeking behaviour. Stigma refers to the negative judgements levied against others because of certain characteristics individuals have that may be deemed undesirable (Lucksted & Drapalski, 2015). According to Cooley's 'looking glass self' approach, a self-concept is socially constructed, which implies that the way people see themselves is shaped by how they believe others see them (Lucksted & Drapalski, 2015). People using substances may have a low perception about themselves because society views them as people of low moral standing, worthless, and irresponsible.

'It [negative attitude towards people using substances] bothers me a lot. People take us as if we are no longer able to think. They take us as if we are insane.' (SSI, participant 2)

As a result of stigma, people using substances felt unsupported and isolated, and that made the challenge of dealing with substance use even more difficult.

Stigma led to substance users being labelled and judged negatively. Such labelling and negative judgement caused them to try to conceal their problem or to avoid presenting themselves for treatment.

'There is disrespect and discrimination and they call us with names such as 'nyaopes' [heroin user].' (SSI, participant 1)

Participants said that discrimination disempowered them and made them feel inferior and unable to confront their challenges. As indicated in the above quotation, they also found it dehumanising to be labelled as nyaopes. When asked why young adults using substances did not seek help and treatment, participants responded as follows:

'It's a shame. They are afraid of what people would say about them on the streets.' (SSI, participant 11)

'The people are very judgemental. You might be positive but they demotivate you by their words and make you discouraged.' (SSI, participant 14)

As a result of stereotyping and negative labelling, people using substances avoided some environments and places, such as healthcare centres, because they feared they could potentially be judged negatively there.

5.3.1.5 Heavy-Handed Law Enforcement. Participants perceived the police to be excessively heavy-handed and violent towards people using substances.

'Police, they are very rude. I don't think they can really help places like COSUP because when they see a heroin addict, they see a criminal that must be locked up.' (SSI, participant 7)

'The police have not made any impact in helping us.' (SSI, participant 3)

'Very bad, even with those injections, they tear them apart if they find you with the syringes.' (SSI, participant 7)

The participants alleged that the police took advantage of people using substances and indiscriminately arrested them in order to solicit bribes and also to meet their daily arrest targets.

'Unfortunately, with the police, what I've picked up is that they have a daily target that on Tuesday we need to get 20 people, you know, for their stats, and now when they don't reach their target around 5 o'clock or 6 o'clock, they go to the hotspots and those are the easy ones to make the numbers.' (SSI, participant 5)

'They are not fair on us and then they are taking advantage of us.' (SSI, participant 2)

'They are doing that just for them to gain something into their pocket, like taking bribes.' (SSI, participant 2)

These alleged acts of harassment from the police, who reportedly patrolled around treatment centres, deterred people using substances from accessing help and treatment.

5.3.1.6 Lack of Community Awareness About Substance Use Treatment Services.

It was revealed that communities had limited awareness about available substance use treatment services, and that mental health literacy was generally low.

5.3.1.6.1 Lack of Knowledge About Available Substance Use Treatment Services.

This theme related to limited information about substance use treatment services available to people using substances. Some patients were unaware of the services that were available, and hence they were unable to get treatment. When asked about the level of community awareness of issues relating to substance use treatment programmes, many participants indicated that the level of awareness was quite low. The participants also mentioned that many people were not aware of the existence of treatment programmes such as COSUP.

'The community is not aware of such places.' (SSI, participant 8)

'Some people don't know about it; a lot of people don't know it. Places like COSUP; people don't know of them and they don't get to hear about them.' (SSI, participant 10)

'Lots of people, they don't know [about COSUP].' (SSI, participant 7)

Some participants alluded to the notion that they knew they needed help. However, they did not know where to get treatment.

'I also needed the help. I just didn't have the knowledge where to get help from.' (SSI, participant 9)

Even in urban settings, where one would expect information to be readily accessible because of the availability of media platforms, it appeared that there was a need for more awareness about substance use treatment services. Participants observed that even some of COSUP's urban-located facilities were unknown to a significant portion of the SUD population.

'You won't believe that even here in town, places like these … people will tell you that I know nothing about COSUP, what is happening there.' (SSI, participant 1)

Apparently, some people were not aware of the existence of substance use treatment providers; hence, they could not get help.

5.3.1.6.2 Scepticism About Treatment Effectiveness. Scepticism about treatment effectiveness emanates from low mental health literacy (Cheng et al., 2018). A few participants were of the view that scepticism in the community about treatment effectiveness was a barrier to help-seeking and treatment. Participants reported that scepticism emanated from the perception that patients on treatment were continuing with substance use, which implied that the treatment was ineffective.

'To tell the truth, many guys that go to COSUP to receive or take the medication still smoke. So many of the guys that I know don't wanna go because they see people taking medication and still smoking, and say to themselves, we don't want to waste the resources that they have.' (SSI, participant 14)

Certain sections of the substance-using community doubted the efficacy of OST.

'I often hear people saying that it doesn't work for them. I don't know if they are really using it the right way.' (SSI, participant 3)

If people have the idea that treatment is not effective, it may dissuade them from seeking help and treatment. Judging from the narratives of the participants, it seemed that the perception of the ineffectiveness of treatment was sometimes generated by a lack of understanding about how the treatment (e.g. the harm-reduction treatment of OST) worked.

5.3.1.7 Lack of Perceived Treatment Need. Regarding lack of perceived treatment need, two sub-themes emerged. The first sub-theme was unreadiness and ambivalence to change, and the second sub-theme was denial.

5.3.1.7.1 Unreadiness and Ambivalence to Change. Participants acknowledged that they could only overcome their problem if they were open and ready to accept help and treatment. If they were not, unreadiness for transition would remain a barrier.

'Amongst us, the addicts, we do speak about it, like when we are sitting in a group smoking and doing whatever you do. At the end it's up to an individual person to take the decision to come and seek help. We know about a lot of places that we can get help from.' (SSI, participant 2)

In as much as help might be available, the affected person had to be able to make the move towards initiating change in their life.

'I think it is because they like drugs too much and they are not ready to stop smoking.' (SSI, participant 15)

'I could say many of them. It's because they are still enjoying the drug.' (SSI, participant 6)

Participants expressed the view that an individual needed to be committed to be able to change.

'Yeah, it's the person's mentality. So, helping a person I would say it is COSUP, but only when you have told yourself that you are ready to quit.' (SSI, participant 12)

By implication, as long as an individual was not yet ready to embrace change, the likelihood of getting help or treatment remained low. The availability of treatment services alone was not enough; individuals needed to be motivated to change.

5.3.1.7.2 Denial. The participants were of the view that, despite having the information about where to get help and treatment, some people using substances still decided not to access help and treatment. One of the reasons cited for this was that some people using substances denied that they were in a problem situation that required treatment. These situations arose when individuals believed that their use of substances was merely a habit that was manageable and that would eventually dissipate on its own, which justified their reluctance to seek treatment. On being asked whether they had, at some stage, felt that their condition needed no intervention, participants shared the following:

> 'I was once in that stage, the time I was new on this drug-using thing. I thought I would control it; how can you tell me a small packet like this, you cannot control it?' (SSI, participant 1)

These responses seemed to suggest that the initial phases of substance use might be marked by denial of the problem. With the passage of time, however, some individuals were able to progressively come to the realisation of the seriousness of the situation.

> 'When time went on, I realised I was not in control, it's [substance-use] the one that was controlling me.' (SSI, participant 1)

Further, some people did not seek help or treatment simply because they were not yet ready to give up using substances.

> 'I think it's because they are not yet ready. Yes, I think they are still enjoying.' (SSI, participant 10)

Based on participants' comments, it was found that unreadiness to give up using substances was a barrier to treatment-seeking for people using substances, and that this unreadiness widened the treatment gap.

5.3.2 Recommendations for Improved Health Services Utilisation

The qualitative data obtained from the responses of participants during the FGDs and SSIs yielded two main recommendations with regard to the question of how young people could be convinced to seek treatment. These recommendations related to the improvement of services and to community-level interventions.

5.3.2.1 Improvement of Services. The recommendation for improvement concerned structural adjustments to service provision that were needed to motivate substance users to seek treatment (Posselt et al., 2017).

5.3.2.1.1 Enhanced Efficiency in Client Registration and Treatment Delivery. Although substance use involves complex procedures, participants felt that the service provider could improve the registration procedure and treatment delivery. Also, by providing client service improvement training for staff, treatment service delivery could become more efficient.

'I think it [registration and treatment initiation] should be shortened to at least maybe two weeks. It should take you two weeks to receive OST.' (SSI, participant 15)

'At least if they try to make this application [registration and treatment initiation] shorter as possible.' (FGD1, participant 8)

'They must bring more training [in client service] to their staff.' (SSI, participant 1)

Judging from participants' remarks, it seemed that restructuring and improving the way patient registration and treatment initiation were conducted could enhance treatment uptake.

5.3.2.1.2 Increased Treatment Facilities and Healthcare Personnel. The participants in the FGDs and SSIs expressed the need for more COSUP facilities so that services would become more accessible to potential service users. It was also indicated that some of the COSUP facilities did not have enough healthcare workers, especially clinical associates, hence the need to establish more COSUP sites.

'I think they [COSUP facilities] are overloaded and the healthcare workers there are not enough.' (SSI, participant 2)

'So, we can have more places of COSUP because they are so few and our township is too big and needs more sites.' (FGD1, participant 6)

'There must be more COSUP facilities and more staff.' (SSI, participant 1)

5.3.2.1.3 Increasing Female-Focused Initiatives. Females were seemingly less prepared to avail themselves for substance use treatment, as evidenced by a significantly and disproportionately small number of females making themselves available for the present research. From participants' statements it appeared that females using substances experienced increased stigma.

'My recommendations will be that I am expecting bigger things from females. Females are backsliding in programmes [treatment]; they disappoint me so much.' (SSI, participant 3)

'That's why you will find in most of our sites the majority are males. Females are very few most of the time because they are shyer about being known or the stigma behind females using is greater than the one of male using.' (FGD2, participant 5)

Therefore, there was a need to put in place initiatives that could motivate females to seek treatment.

5.3.2.1.4 Complementing Medical Treatment Services With Voluntary Pastoral Counselling. The ability to understand and appreciate people of diverse cultures, in particular

in terms of aspects such as religion and tradition, is a key aspect of psychological thinking and is essential for efficacy in clinical practice (L. Smith, 2015). Some participants highlighted the following:

'I don't know how they [pastors and their counselling] can be integrated in the harm-reduction programmes but I think they are very important in the recovery process … I found it helpful when I was going through my recovery process.' (FGD1, participant 4)

'I think COSUP should hire some pastors for some sectors or some sites to have at least one pastor who will attend once or twice a week in order for these guys to get help religiously. That's the main thing that really helped me a lot.' (FGD1, participant 6)

Participants felt that cultural competence and the ability to combine cultural traditional treatment approaches with medical treatment were critical for patients to achieve their treatment goals.

'I personally feel that if there were both medical services and religious services being provided, it could be of a greater advantage to an individual with SUD.' (FGD2, participant 5)

'If you are a human being you have to believe in something. So, even if you take medication, you also have to believe in God because medication only won't help you. From my experience, drugs are very heavy and without God you won't be able to overcome them. So, medication does help but you must also pray and ask God to help you.' (FGD1, participant 8)

Although participants did not provide a clear implementation strategy, they were of the opinion that medical treatment services and pastoral counselling could complement one another and result in better treatment outcomes. Collaborative approaches to treatment strategies could help to deliver better treatment outcomes.

5.3.2.1.5 Revival of Skills Development Programmes, and Recreation. Skills development is an integral component of the substance use treatment package (Patel et al., 2016). Participants believed that young adults using substances should be equipped with life and technical skills that could help them earn a living.

'But they must bring back skills development, and after skills development they can actually contact companies to give you internships or jobs.' (SSI, participant 5)

'We are seeking for jobs and now [COSUP] brings in the skills development aspect, it will make a difference. At least we are learning something that they can use to better their lives or to even make sort of an income.' (FGD1, participant 4)

'The problem is, when we get here, we just sit and get medication. But we want to do some things, for example agriculture or garden projects just to keep us busy. Sometimes we can even exercise and play soccer and things like that. Things to keep us busy.' (SSI, participant 12)

From what the peer educators and clients had to say, it was apparent that the provision of skills development was a big motivator for people to go for treatment. It appeared that most clients were looking at life after treatment, and therefore the provision of skills development was of critical importance. Recreational activities were also regarded as important in diverting people's attention from the use of drugs.

5.3.2.2 Community-Level Interventions. These are interventions aimed at fostering community cohesion through awareness campaigns and other initiatives that would destigmatise and promote supportive behaviour from fellow community members and beyond.

5.3.2.2.1 Moral Support from Family and Community Networks. Participants expressed a desire for getting much-needed moral support from their families and community networks in order to restore their lives. Additionally, the invaluable contribution of

community networks, such as community advisory groups (CAGs), was also mentioned as a source of support.

'Most of us need moral support, and, again, let's try to put ourselves in their shoes to feel what they feel.' (FGD2, participant 1)

'I think what will motivate other young people to participate in the substance use programme is CAGs … We are there to talk as substance users and we relate to each other, we share our daily triggers on a daily basis. I can tell you my solutions, how I overcame the situation and what the other person is going through in the same situation. The other person can give him some advice whereby we get together, we talk. I have seen it work, even here at Bosman COSUP site.' (FGD2, participant 4)

'Yes, it is necessary to involve families because even them, they need counselling, even them, they can trigger the child to go and use substances by calling the child names like nyaope.' (FGD2, participant 1)

The participants reflected on the importance of the involvement of the family in the treatment process. They regarded it as crucial for families to lend psychosocial support to individuals receiving treatment for SUDs. Peer engagement and interaction among individuals using substances were also crucial to enhance motivation to get treatment.

5.3.2.2.2 Substance Use Awareness Campaigns to Destigmatise Substance Use in Communities. The participants attributed the stigmatisation of substance use to low mental health literacy in the communities. By making communities more aware of substance use, starting with the school-going population, it was hoped that mental health literacy will be elevated and that the stigma and misconceptions about SUDs will be lessened (Cheng et al., 2018).

'I think that outreaches, going back to the community, going into schools, finding these individuals at their most vulnerable stages, and educating and informing them about

substances, about the dangers involved, about how much it's a trap, and how much it's not worth it.' (FGD2, participant 5)

'I would say the encouragement or motivation will come from an awareness raised in our communities and also ourselves being the living proof of the success of the treatment.' (FGD1, participant 5)

'The main focus shouldn't be educating the substance users but educating the community as a whole as to how they also need to treat people using substances as normal individuals.' (FGD2, participant 5)

The participants' observations pointed to the need for a holistic approach to the treatment of SUDs, which included the well-being of the people (family) responsible for providing care to the individual receiving treatment.

5.3.2.2.3 Non-judgemental and Non-aggressive Law Enforcement Strategies. According to the participants, law enforcement agents might need to be further enlightened about harm-reduction programmes such as OST. It was alleged that the police had a negative attitude towards people using substances and that they stereotyped them.

'I would say, firstly, harm reduction needs to be incorporated into law enforcement training for the police or those who are custodians of the law to be in the know about issues pertaining … [to] substance use … harm reduction should be integrated into the law enforcement course because they should know about what we are doing.' (FGD1, participant 5)

'The people [i.e. police] are very judgemental.' (SSI, participant 14)

'I feel like the system should be monitored in such an extent that the police do not abuse their power.' (FGD2, participant 5)

The participants recommended that the police service develop a non-judgemental, non-aggressive approach so that people who used substances and wanted to go for treatment did not feel intimidated.

5.3.2.2.4 Community Education. The participants expressed their concerns about the lack of a broad-based and formal public policy on harm reduction that would create a heightened awareness of this harm reduction public health intervention.

'It shows that we still have a long way to go in order to effect change or make policy changes. The government can at least be behind us 100% on this harm reduction thing that we are doing.' (FGD1, participant 4)

'I think until a time whereby OST or harm reduction are part of the essential list of medicines [a publicly known and government-endorsed intervention], and until public servants are given more trainings on substance use as a disease, or as a disorder, the problem will continue.' (FGD2, participant 4)

From the participants' comments it was deduced that they felt the government needed to step forward and take a leading role in creating awareness of mental health issues, and to also play a facilitating role in tasking the relevant departments and agencies to efficiently execute their designated roles.

5.4 Triangulating Qualitative and Quantitative Results

The motive for triangulating the study's results was to generate a more in-depth picture of the research problem and create different ways of understanding the research phenomenon (Fielding, 2012). In the present study, qualitative findings were compared and contrasted based largely on the depth and exploration of new ideas, and relevant data were added to the quantitative data.

5.4.1 Similarities Between Qualitative and Quantitative Data

The following similarities were identified:

- Stigma was a prominent obstacle to help-seeking and treatment.

- The conduct of the police was a strong deterrent to treatment-seeking among people using substances.

- The information gap relating to SUDs and treatment services impeded help-seeking and treatment.

- There was fragmented service due to inadequate SUD treatment resources, and a lack of integration of mental health with mainstream health services.

- Delays in client registration and treatment initiation due to logistical difficulties and costs impeded help-seeking and treatment.

- Young adults' lack of perceived treatment need was due to their unreadiness and ambivalence to change, as well as to their denial, which could be related to their low mental health literacy.

5.4.2 Differences Between Quantitative and Qualitative Findings

The following differences were identified:

- The survey was able to establish in quantitative terms the relative influence of treatment barriers and rank them accordingly.

- The quantitative data examined gender-based differences relating to the perception of treatment barriers.

- Through EFA, the quantitative study was able to group items together and make measures more incisive, thus enhancing the validity of the research.

- FGDs explored barriers not previously identified in other research, such as the influence on help-seeking behaviour of factors relating to culture and religion/spirituality. These factors were subsequently added to the questionnaire.

- New cultural dimensions of religious beliefs emerged from the SSIs, and these as well as traditional approaches to treatment were identified as barriers to treatment.

- The qualitative study explored and highlighted the achievements of COSUP, which could be used as baseline information in future interventions.

- Through the qualitative study, recommendations could be made to motivate young adults to seek help and treatment. It was recommended that vocational skills training programmes and CAGs could be revived and reinforced.

- The qualitative study explored and highlighted the strategies aimed at improving substance use healthcare services.

- The qualitative study was able to explore in more depth the 'why' question with regard to the existence of different treatment barriers.

5.5 Conclusion

In this chapter, the results obtained from the three data collection strategies were outlined in relation to the research questions. These results were gathered from the sequentially administered FGDs, the questionnaire, and the SSIs. By means of triangulating the results, the research could lend more depth to the exploration and understanding of barriers to the treatment of SUDs.

Chapter 6: Discussion

6. 1 Introduction

This chapter discusses the findings of the study, its strengths and limitations, and the value of the research. Recommendations are made and conclusions are drawn within the context of considering the implications of the study for practice and further research. This study employed CR as its overarching paradigm in order to obtain an in-depth understanding of help-seeking behaviour in the context of substance use, which is widely regarded as complex and multi-faceted (Creswell & Creswell, 2017; Fletcher, 2017). CR is a paradigm that embraces complexity and multiple realities, and one within which causal mechanisms are abstracted and analysed, and then related back into the actual research context in order to derive an understanding of how these causal mechanisms can explain underlying processes (Tikly, 2015). Bronfenbrenner's SEM and the ABM (Babitsch et al., 2012) were used as frameworks of analysis, relating the study's findings to theory and literature. In the light of the findings from the present study and other related studies, the discussion takes a critical look at the gaps in the theory and the literature, with a view to endorsing the contributions made by the present research.

6.2 Integration of Quantitative and Qualitative Findings on Treatment Barriers

The purpose of this section is to discuss the findings reached from analysing both the quantitative and the qualitative data. Additionally, findings from the qualitative data that did not reflect in the quantitative data are presented and discussed thereafter.

Through quantitative research, treatment barriers and their relative strengths were identified. These treatment barriers are discussed next, and they are explained using qualitative data. The order in which they are discussed is based on their relative strengths.

Both the quantitative and qualitative data analyses revealed stigma as one of the most prominent barriers that deterred substance users from seeking treatment. In the present study, stigma was operationalised as discrimination in the community and from the police (summated mean = 2.261), and 'labelling and rejection in the community and in healthcare settings' (summated mean = 1.660).

Participants' narratives revealed the shame and degradation that people using substances might feel. Due to a community's stigmatisation and attitudes, people using substances experienced difficulty in seeking help and treatment. The FGDs and SSIs aided in unpacking the concept of stigma into different domains, namely, labelling, rejection, and discrimination in the community, in healthcare settings, and in the police service. According to the participants, the police displayed hostile attitudes towards people using substances, which even included increasingly arresting patients. People who were using substances and were trying to find help and treatment from places such as COSUP, experienced a constant fear of being arrested (Scheibe et al., 2017). This left them in a constant state of anxiety and hypervigilance.

The prominence of stigma as a barrier to help-seeking and treatment substantiated the findings in related studies. International research has consistently found stigma to be one of the most significant treatment barriers facing people using substances (Liebling et al., 2016; Sorsdahl & Stein, 2010; Stringer & Baker, 2018). Sorsdahl and Stein (2010), in their study conducted in South Africa, observed that participants reported stigma as the single most influential factor for not seeking treatment, with as much as 92.8% of the study participants endorsing the fact that stigma was a factor. One of the reasons discussed in the literature as leading to stigma being an influential barrier, is the assumption and misconception that SUDs are a consequence of poor morals and poor personal choices (Velez et al., 2017).

Stigma as a barrier to treatment for people using substances can be conceptualised using Bronfenbrenner's SEM framework (1979; 1989) as described below.

Because of the negative labelling/perceived stigmatisation of SUD in the community (macrosystem), people using substances anticipate rejection by their families and friends (microsystem). These substance users may then develop doubts as to whether they will receive unprejudiced or appropriate healthcare from treatment centres (exosystem). In an ecological model where many factors influence processes through interrelationships (Ngwenya et al., 2020), a change in the environment through community (exosystem) awareness programmes aimed at destigmatising SUDs by disseminating information may contribute, among other things, to a change in the attitude of individuals and families (microsystem) towards treatment-seeking.

The existing information gap was identified as a theme and an important barrier in both the quantitative and qualitative data (summated mean = 1.924). In the quantitative data, the information gap was reported in terms of a lack of information in the community about the availability of treatment for people using substances, and a lack of information in the police service about substance use and treatment. The literature resonates with these findings of the present study: several studies indicate that the lack of knowledge about services is indeed a critical barrier (Myers et al., 2010; Odejide, 2006; Pasche & Myers, 2012).

The heavy-handedness of the police seemed to be mostly due to a lack of adequate information about treatment services, such as OST, and harm-reduction strategies such as NSP (Jürgens et al., 2010; Scheibe et al., 2017). It can also be a reflection of the community's stigmatisation of people using substances. A review of more than 900 studies in different parts of the world reveals a link between the heavy-handedness of police when dealing with people using substances, and these people's low health service utilisation (Jürgens et al., 2010; Strang et al., 2020).

According to the participants in the present study, the police lacked adequate information about treatment services (specifically harm-reduction treatment); hence, the occurrence of some unlawful arrests. The participants reported that police in some instances confiscated medication, such as methadone, from COSUP clients. The problem of indiscriminate arrests due to a lack of adequate knowledge and understanding of treatment services is well documented in South Africa (Jürgens et al., 2010; Machethe & Obioha, 2018; Scheibe et al., 2017), and it is also observed in other parts of the world (Hayashi et al., 2017). Intense police surveillance of methadone clinics coupled with frequent incarceration of PWID deters treatment utilisation (Strang et al., 2020).

The quantitative data indicated a lack of perceived treatment efficacy as a barrier to treatment (summated mean = 1.504). The qualitative data then captured a more in-depth understanding as to why there was a lack of perceived treatment efficacy. Participants shared the view that potential service users observed that some patients were on methadone for extended treatment courses, causing them to conclude that the medication was ineffective. However, one can argue that this view stems from a lack of knowledge that OST is a long-term substitution therapy.

Also contributing to the perception that treatment is ineffective, is a gap in information on how methadone is meant to treat people, and this perception is exacerbated by the situation that, in South Africa (and also in COSUP), people are not being provided with agonist (methadone) in sufficient doses. A sufficient dose is regarded as between 60 and 120 mg methadone per day (WHO, 2009). A study in COSUP (Gloeck et al., 2021) revealed that a median dose of 20 mg was administered, which was substantially lower than the recommended therapeutic range. Sub-optimal dosing was found to contribute to low retention and reduced effectiveness of the intervention (Gloeck et al., 2021).

Despite isolated cases of scepticism about the effectiveness of OST, there is growing evidence of the acceptance of this treatment modality (Alam-mehrjerdi et al., 2016; Hedrich & Hartnoll, 2021; Rao, 2017). The acceptability of OST has grown not only in Western countries but also in India, especially after OST became part of India's National AIDS Control Programme (Rao, 2017).

Another reason why medical treatment interventions are perceived to be ineffective is because of alternative cultural belief systems that run counter to or oppose the use of medical interventions (Goldstone & Bantjes, 2017; E. Guerrero & Andrews, 2011). The endorsement of the items 'our families encourage us to seek help from pastors and religious leaders' (57.3%) and 'churches provide better services' (53.9%) as reflected in the quantitative data, indicated that there were people who subscribed to the notion that culturally based interventions, such as religion/spirituality, could be more effective than medical interventions. The theme of culture and religion/spirituality also emerged in the FGDs and was further discussed in the SSIs.

As shown in the quantitative data, the theme of privacy concerns was not endorsed as highly as the other barriers. This theme scarcely emerged in the qualitative data. It can be observed that although privacy issues have been found to be an obstacle to treatment in some other studies (Blanco et al., 2015; N. G. Choi et al., 2014; Luoma et al., 2012), clients at COSUP did not experience this as a significant treatment barrier. Context can determine the relevance of certain factors (N. G. Choi et al., 2014; Najavits, 2015), and, taking into account the participants' experiences in COSUP, it can be argued the participants in this particular context may not have experienced privacy issues as a particular concern.

Participants attributed the substance use treatment gap to the existence of barriers such as lack of resources and support (summated mean = 1.433). In some cases, they

mentioned that treatment centres were located far away, negatively affecting access to treatment (Docrat et al., 2019; Pasche & Myers, 2012).

The above was usually the case in rural areas or peripheral areas of urban settlements. Most LMICs, such as South Africa, experience shortages of treatment facilities in rural and urban peripheral settings (Pullen & Oser, 2014). Tshwane appears to be well-serviced with several facilities dotted across the central parts of the city such as the Bosman Street, Sunnyside, Tshwane District Hospital, and Hatfield sites (see Chapter 4, Figure 12). However, some peripheral high-density settlements, such as Ikageng, Mamelodi, and Lusaka, which are mostly economically disadvantaged communities with large populations (Montesh et al., 2015) of people using substances, are only serviced by a single facility each. Myers et al. (2010) have observed similar patterns in related studies in Cape Town, South Africa.

The shortage of healthcare personnel, especially mental health specialists, is a challenge that has had profound effects on the treatment of mental health disorders, as well as SUDs. Initiatives, such as the Sustainable Development Goals, have been lobbying governments to review budget allocations for mental health services in order to ensure an efficient health delivery system run by sufficiently staffed institutions and serviced by adequately trained personnel (Abdulmalik et al., 2019). Research evidence shows that the critical shortage of healthcare personnel is more pronounced in LMICs, including South Africa (Essien & Asamoah, 2020). According to the participants in the present study, COSUP also faced shortages of healthcare personnel, such as clinical associates and social workers, at some of the sites.

Outside of Tshwane, OST in South Africa is not yet state funded, and this puts pressure on the few service providers offering this type of treatment (Morgan et al., 2019). Moreover, very few people are receiving the methadone dose that is recommended by the World Health Organisation (i.e. between 60 and 120 mg methadone per day). In COSUP, due

to resource constraints, some of the clients receive about 20 mg per day, and this can have a two-fold effect of decreasing the chances of achieving optimal treatment goals, and also contributing to lack of perceived treatment efficacy. This ineffectual dose may explain why the results of this study revealed that some participants raised some reservations about the absolute effectiveness of OST in COSUP. Outside COSUP, OST clients receiving the recommended therapeutic doses of agonist medication, compared to those receiving lower doses (Gloeck et al., 2021), have been found to have increased chances of being retained in treatment and to achieve treatment goals. According to the study by Gloeck et al. (2021), the odds of retaining participants who received methadone doses of < 50 mg were lower.

People using substances need encouragement and moral support to seek treatment services and to adhere to the treatment (Lemos et al., 2012; Ngwenya et al., 2020). Both the quantitative and qualitative data in the present study reflected a lack of moral support for people using substances from their families and the community at large. The lack of this moral support related to the theme mentioned in the quantitative data as a lack of resources and support (summated mean = 1.433). According to participants, families and communities showed disapproval of and an indifferent attitude towards people using substances, dampening the motivation of people using substances to seek treatment.

The theme of denial and unreadiness to give up was measured in the quantitative data as the least influential barrier to help-seeking, although it featured prominently in the qualitative data of the FGDs as a lack of treatment need. The low score can, perhaps, be due to the fact that the participants in the quantitative study of the present research were already in treatment and, therefore, had already gone through the processes of denial and unreadiness to give up. In the SSIs (phase 3), where the participating sample was already in treatment, denial and unreadiness to give up were not prominently expressed.

According to Pandina et al. (2010), in young adulthood the family is slowly replaced with peer groups to serve as social support networks. This developmental stage is characterised by individuals' desire to conform, belong, and feel accepted in a peer group. As a result, the young people are not ready to give up using substances, because substance use connects them with their peers in their social networks.

Different perspectives in government in South Africa resulted in fragmented, varied and sometimes uncoordinated implementation processes. Policy implementation by government structures within different departments varies between provinces, districts, and municipalities, and it depends on the dominant perspective in the region (Department of Planning, Monitoring and Evaluation, 2016). Therefore, there can be discrepancies between policy and action in different departments, and differences in perspective can result in conflicting actions. For example, as was reported in the present study, law enforcement agencies frequently challenged the legality of needle and syringe services, harassed or arrested treatment seekers and outreach workers, and continued to confiscate and destroy injection equipment (Scheibe et al., 2020). This fragmented and uncoordinated approach to service delivery hampered the utilisation of treatment services.

COSUP is part of the primary healthcare initiatives that attempt to bridge the substance use treatment delivery gap at primary healthcare level (Hugo et al., 2020). Under-funding of the primary healthcare system, including COSUP itself, results in shortages of medication, limited availability of facilities, and difficulties in implementing an integrated, efficient service delivery system (Hugo et al., 2020). Fragmented service, rated by participants as the most important barrier to treatment (mean = 2.51), was characterised by delays in client registration and long waiting times before initiation into treatment, as well as staff shortages and limited facilities.

The qualitative findings revealed that clients and potential service users were frustrated with what they perceived to be inefficient and inept registration and treatment initiation processes. This was also found in studies done in different parts of South Africa such as in KwaZulu-Natal (Mpanza & Govender, 2017), in North West (Mohasoa & Mokoena, 2018), and in Cape Town in the Western Cape (Myers et al., 2010). Fragmented services may be caused by a failure to cope with a high demand for medication, such as methadone, poor strategies to motivate patients to initiate treatment, and poor patient retention strategies (Hugo et al., 2020; Posselt et al., 2017; M. J. Smith et al., 2015). Fragmented services may be a function of under-prioritisation and under-funding of certain sectors, such as mental health treatment (Mahomed, 2020). The treatment of SUDs is seen as marginalised, perhaps because people using substances are stigmatised and associated with moral blameworthiness and culpability. Policy-makers and society at large often use these attitudes as justification for the under-prioritisation and under-funding of the prevention and treatment intervention initiatives of SUDs (Bienvenu et al., 2011).

The literature on gender-based differences in the perception of treatment barriers is limited (Hamilton et al., 2016; C. A. Green, 2006). To bridge the literature gap, the present research looked beyond the identified and measured barriers to demonstrate that demographic factors, such as gender, could have a telling effect on how males and females might perceive barriers to help-seeking and treatment differently. Potentially, this can have a significant bearing on the nature of intervention strategies that should be designed.

Through independent samples t-tests and effect size calculations, significant differences between males and females were found to exist in respect of their perception of barriers. Using large effect size calculations, the research found that females experienced stigma as a greater barrier to help-seeking than males did. This finding related to both the stigma constructs, namely, discrimination in the community and by the police as well as

labelling and rejection in the community and in healthcare settings. It has been suggested that females experience enhanced stigma because substance use among this group is outside normative social expectations (Stringer & Baker, 2018). This was also cited in the present study (see chapters 4 and 5) as the reason why 79% of current COSUP clients were male and 21% were female. Moreover, for this particular research, 171 (83%) males presented themselves for the quantitative research whereas only 35 (17%) of females presented themselves. SACENDU's statistics on treatment admissions also show a consistent pattern of more males than females reporting for treatment in all South Africa's provinces (Dada et al., 2018).

Although there has been a paucity of local research to investigate the influence of gender on the perception of treatment barriers, some international studies seem to corroborate the finding that the perception of stigma as a barrier to help-seeking features more strongly among females than among males (Luoma et al., 2012; Santos da Silveira et al., 2018; Stringer & Baker, 2018). Some studies in the USA show that there is a higher unmet need for substance use treatment among females, and this has partly been attributed to the larger effect of the perception of stigma on females than on males (Morris & Melia, 2019; Stringer & Baker, 2018). To contribute to the bridging of the literature gap in respect of treatment barriers related to gender differences, the research explored the role of gender in the perception of treatment barriers.

The findings of this study contributed to develop knowledge on the importance of culture in the context of utilisation/non-utilisation of treatment services. Culture was mentioned as a determinant of help-seeking and treatment in the context of substance use. Although South Africa may report some treatment barriers that are similar to those in other regions of the world, it is important to take into account that a socio-cultural context is fundamental in the detection, facilitation, understanding, and treatment of SUDs (Mendenhall

et al., 2014). Some people subscribe to the idea that, for substance use treatment to be effective, treatment processes should embrace cultural/traditional factors, whereas others believe that cultural traditional treatment approaches are unscientific and ineffective (Koroma, 2019).

Religion/spirituality and the belief in traditional medicine are the two dimensions of culture that were discussed during the FGDs and SSIs. Traditional health practitioners play an important role in healthcare in South Africa and the continent at large (Zuma et al., 2016). Some respondents were of the opinion that religious practices/spirituality might be a more effective intervention than medical treatment to attain improved health outcomes. It may be that community members do not know about medical services for substance use, and that religion is the only help they are aware of. The belief in the relevance of spirituality/religion in the treatment of SUD is quite prevalent in Africa (Carelse & Green, 2019; Connery & Devido, 2020). Therefore, in the southern regions of Africa, the support of faith-based organisations is being solicited to form potential partnerships with government agencies in providing health and social services (Davis, 2014).

This offers the insight that religion/spirituality can play a role in substance use treatment and the recovery process. However, the literature on spirituality and substance use treatment is still limited compared to that on medical treatment (Walton-Moss et al., 2013). There is a need for more research that includes clinical samples using measures of specific and well-defined dimensions of spirituality in understanding the role and effectiveness of these constructs in a recovery process.

Although traditional medicine (and its effectiveness) is a controversial topic as it is regarded as being at odds with Western medicine, the role of traditional health practitioners continues to be important in the African context (Zuma et al., 2016).

Participants' narratives revealed that it was believed that traditional healers, locally known as *sangomas,* could treat mental health disorders. However, some participants mentioned that there were illegitimate traditional health practitioners who swindled people out of their money. The limited research and lack of empirical results on the use of traditional medicine raise scepticism about the effectiveness of the approach (Richter, 2003). This partly explains the controversies that surround traditional healing in South Africa and the African continent at large (Richter, 2003).

One participant (SSI, participant 5) gave an account of the time when her boyfriend died from substance use-related illnesses; he had chosen to receive traditional medicine instead of medical treatment. The participant believed that his death could have resulted from the ineptitude of the traditional healer or the ineffectiveness of the traditional medicine.

According to the participants, many traditional beliefs had the viewpoint that SUDs were rooted in evil spirits and witchcraft, and that these needed to be exorcised by traditional healers via the route of traditional medicines and rituals (Nortje et al., 2016).

As the debate on the effectiveness of traditional medicine rages on, it remains clear that some people using substances do not utilise medical treatment interventions, such as those offered by COSUP, because they believe in traditional medicines and religious strategies.

6.3 Summary of Findings on Treatment Barriers: The Present Research Versus the Literature

The aim of discussing the present study's findings on treatment barriers in relation to findings in the existing literature is, on the one hand, to posit that the present study confirmed existing knowledge, and, on the other hand, to indicate that the present study added to the existing body of knowledge on treatment barriers. The present study extended the knowledge on what was already known about treatment barriers such as stigma, privacy concerns, lack of

information on treatment services, lack of perceived treatment need, limited treatment facilities, and financial costs (Isobell et al., 2018; Myers et al., 2010; Sorsdahl et al., 2012). As discussed in section 6.2, privacy concerns were a less influential barrier in this study compared to other related studies, possibly because the quantitative sample in this study was already in treatment and had somewhat overcome privacy concerns. Lack of perceived treatment efficacy as a barrier to service utilisation is confirmed in related literature. During the research process, the researcher assessed the different treatment barriers that emerged in the study and compared/considered them with reference to existing literature, identifying complementarity, divergence, or new knowledge. For instance, the present study confirmed the literature's identification of stigma as a significant factor in impeding utilisation of services. More importantly, however, the study was able to carve out various stigma domains and show how they related to various stigmatising behaviours displayed by community segments such as the healthcare system, law enforcement, and society in general. This explains why there are two forms of stigma presented and discussed by the researcher in this study.

Further, the present study revealed several other new dimensions, such as the role of religious/cultural aspects in acting as barriers to or facilitators of seeking treatment. Chapter 2 reviewed some significant literature in which a wide range of treatment barriers was identified; however, it was evident that existing literature paid scant attention to the themes of culture and spirituality.

As mentioned earlier, there is a paucity of existing research on the role of culture and religion in the treatment of SUDs (Bliss, 2009). Through in-depth interviews, the current study was able to capture varying perspectives on the role of culture and spirituality in SUD treatment, and to include in its analysis an interrogation of policy-making and implementation.

Additionally, this study made a contribution by exploring the role of gender in the perception of treatment barriers, and coming up with progressive recommendations such as establishing gender-specific treatment facilities or same-gender client–therapist set-ups.

The present study was able to bring to the fore the importance of developing context-specific interventions that the clients can relate to and that could motivate people using substances to seek treatment. An analysis of the findings of this study enabled the researcher to make a recommendation for improved practice in COSUP (see section 6.9.1.4). Most existing studies on SUD treatment in LMICs focus on addressing resource limitations as barriers (Myers et al., 2020).

6.4 Different Perspectives on Treatment Barriers

The study also revealed the existence of some measure of differences in the way treatment barriers are seen from the perspective of clients not in treatment (in this study represented by peer educators in FGDs), versus treatment barriers seen from the perspective of clients in treatment (patients receiving treatment in SSIs). The next section briefly discusses the perspectives of clients in treatment compared to the perspectives of clients who have not accessed treatment.

6.5 Participants in the FGDs and SSIs

The sample of participants in treatment identified more with systemic barriers such as fragmented services that resulted in logistical difficulties in treatment registration and treatment initiation processes, the heavy-handedness of law enforcement, and the steep financial costs of medication such as methadone. On the other hand, the sample of participants who were not in treatment (i.e. the peer educators) identified more with attitudinal barriers such as a lack of perceived treatment efficacy, and an unreadiness to give up. Although systemic barriers related to financial constraints were prevalent in both the samples referred to above (a finding which is consistent with findings in low-resource

settings such as South Africa [Myers et al., 2020]), the sample of participants in treatment focused more strongly on systemic barriers. This finding has policy implications in that the perceptions of both groups/samples need to be consolidated in order to come up with comprehensive strategies that can enhance treatment utilisation.

6.6 Findings and Theory

The focus in this section is on understanding the relationship and interface between the findings of the study and theory.

In the first place it has to be reiterated that the present study adopted CR as its overarching paradigmatic stance. CR embraces perceptions of multiple realities, and this enabled the researcher to observe and analyse findings from multiple viewpoints (Zachariadis et al., 2013). CR provided the researcher with the platform to shape the logic of inference through a process of retroduction, which addresses key epistemological issues such as causation and validity with more robust meta-inferences (Zachariadis et al., 2013). Owing to the complexities of substance use studies, there was a need for a more flexible approach in the present research. Such flexibility was offered by CR, which allowed a number of subjects to be viewed and understood from multiple standpoints (Fletcher, 2017; Zachariadis et al., 2013).

Further, the flexibility that CR offered, promoted a more diverse and exhaustive approach to the research discourse, potentially enriching the quality of the research findings (Fletcher, 2017). Additionally, CR related to the SEM by identifying and offering a broad perspective of the patterns underlying behaviour (Fletcher, 2017).

6.6.1 The Interface between Andersen's Behavioural Model, Critical Realism, and the

Socio-ecological Model

The focus in this section is on understanding the relationship and interface between the findings of the research and theory. The SEM explains the underlying processes of how an individual's behaviour is shaped by various socio-ecological spheres, whereas the ABM seeks to predict help-seeking behaviour from the perspective of individual and environmental factors (Ngwenya et al., 2020; Osório et al., 2017). The two models intersect by showing that human behaviour does not occur in a vacuum, but, rather, that it is shaped by individual and external factors (Visser, 2007). This discussion will shed light on how these two models enrich the understanding of the study results.

6.6.1.1 The Socio-ecological Model. The barriers identified in this study can be understood through the lens of the SEM perspective (Bronfenbrenner, 1979, 1989) (Rosa & Tudge, 2013). Several treatment barriers were identified at attitudinal, personal, and structural levels. This reinforced the observation of Jalali et al. (2020) that substance use is a multi-dimensional issue that should be addressed at individual, interpersonal, communal, and societal levels. Further, the characteristics of the macrosystem level cascade down into interrelationships with the other ecological spheres such as the exosystem, mesosystem, and microsystem (Jalali et al., 2020; Ngwenya et al., 2020). Among many other aspects, the macrosystem includes public policy, law enforcement and policing, and shared cultural values, beliefs and customs.

As indicated in Chapter 5, it is evident that government policy (macrosystem) on making mental health services, including substance-related treatment, easily accessible and affordable by integrating these services into primary healthcare settings (exosystem) has not been implemented. Participants reported inefficient delivery of substance use services in hospitals and clinics (exosystem) where discrimination against SUD patients by healthcare

workers is reportedly rampant (Ngwenya et al., 2020). COSUP services are part of primary healthcare efforts to increase accessibility and affordability of substance use services (Hugo et al., 2020). However, a gap in services still exists as evidenced by participants' comments that treatment facilities and healthcare workers are inadequate and inefficient, resulting in fragmented services, therefore making it difficult for clients to receive treatment. At times, COSUP clients need to purchase expensive medication, such as methadone, at their own cost in order to be eligible for treatment (Hugo et al., 2020). It appears that as long as substance use services remain fragmented and practically detached from mainstream health services and primary healthcare, the treatment gap will persist. As was evident in the present study, fragmented service (exosphere) was measured as the most influential treatment barrier.

Other characteristics of the macrosystem, such as shared values and belief systems, were found to have a significant influence on community services (exosystem) and on individuals. For example, the qualitative data suggested that community stigmatisation and negative labelling (macrosystem) dissuaded substance users from seeking treatment services (exosystem). Religion and cultural beliefs also shape individuals' and community members' attitude towards help-seeking and treatment (Laudet et al., 2006; Ranes et al., 2017). In South Africa, this has given leverage to the view that interventions such as religion and traditional medicine are more plausible and effective treatment options for substance use problems than medical treatment (Koroma, 2019). Some patients who participated in the present research were reluctant to seek medical treatment services, which included the provision of methadone, offered by COSUP because of their view that methadone was a Western treatment. SSIs revealed sentiments that methadone was a Western medicine and not effective in treating people who did not believe in Western medicine. Similar findings were obtained by Hayashi et al. (2017) in Bangkok, Thailand.

Law enforcement and policing form part of the public policy shaped at the macrosystem level, and these can have an effect on the lower-order ecological spheres of the SEM (Rosa & Tudge, 2013). The exosystem can also have a direct influence on the individual. However, police heavy-handedness (exosystem) becomes an impediment to service utilisation for people using substances (Duby et al., 2018; C. D. Parry et al., 2004). Qualitative data obtained in the present study indicated that there were unwarranted over-surveillance of COSUP treatment facilities, acts of intimidation, and unfair and unlawful confiscation of medication from patients.

Lack of moral support from family (microsystem), neighbourhood (mesosystem), and the community at large (exosystem) was found to deter substance users in seeking help and treatment. Participants reported that some patients were unmotivated to seek treatment because they lacked moral support from family, friends, and the community.

At an individual level, a substance user may not perceive any need for treatment or may be in denial, and this individual will regard it as unnecessary to utilise health services in the community (exosystem) (Blanco et al., 2015). Substance use is often supported by peer groups (microsystem); to receive the support of the peer group, individuals often opt not to seek treatment (Manzoni et al., 2011; Schulenberg et al., 2014). Another pervasive individual factor in the SEM is the lack of perceived treatment effectiveness (Perumbilly et al., 2019). Both the lack of perceived treatment need and the lack of treatment effectiveness were identified in the present study as factors influencing health service utilisation behaviour.

The above discussion shows that the underlying processes in respect of the treatment gap identified in this research are supported by theory. The SEM enhances the understanding of an individual's experience of how barriers to the treatment-seeking process can be framed within nested systems (Hewell et al., 2017). The findings also mirror the principles of the

National Institute of Drug Abuse, which reflect the influence of broader socio-ecological factors in impeding or facilitating help-seeking and treatment (Nance, 2021).

6.6.1.2 Andersen's Behavioural Model. The ABM (Andersen, 1995) was applied in the present study to explain the psychosocial and systemic factors obtained in the results, and how they related to attitudes towards healthcare providers and beliefs about the healthcare system. The ABM used in this study is relatable to the behavioural model of health services utilisation (BHSU) used by Myers et al. (2010) to identify treatment barriers and examine inequitable service utilisation in the Western Cape province of South Africa.

The predisposing factors in the context of substance users who were considering seeking help and treatment, related to the biographic and sociodemographic factors that might influence these individuals' decision to utilise/not utilise substance use services. Predisposing factors, such as gender, race, age, and family/community support structures, were found to play a significant role in individuals' decisions to seek help (Mojtabai, 2005).

A significant association was found to exist between gender and the perception of treatment barriers. Gender was found to influence the perception of several barriers, such as stigma, the information gap, and fear of the police, as well as perceived treatment efficacy. The findings indicated that females experienced a higher perception of treatment barriers, which decreased the likelihood that they would use treatment services. This finding has led to some suggestions to create gender-specific treatment facilities in an attempt to motivate females to utilise treatment services. Existing research on the association between gender and utilisation of treatment services is, however, scant, with some studies producing inconclusive evidence, which indicate that there is a need for further research (McHugh et al., 2018; Pienaar et al., 2018).

Examples of enabling and disabling factors that influenced seeking help and treatment included proximity to a COSUP health facility, moral support from family and the

community, and perceived need for treatment. The distances from COSUP sites had a significant bearing on service utilisation. Participants indicated that the concentration of COSUP facilities around central Pretoria enabled them to easily access the sites. However, the scarcity of COSUP sites in the urban peripheral areas hindered the utilisation of treatment services. Therefore, the proximity of a service provider can serve to enable or disable service utilisation (Kenny et al., 2011; Priester et al., 2016).

Participants believed that more people using substances would avail themselves for treatment if they received moral support from their families and the community at large. Moral support enables people using substances to effectively deal with the recovery process by sharing their experiences with supportive individuals (Wang et al., 2016). The findings indicated, however, that patients lacked the pivotal moral support to get through the journey of recovery.

Need factors reflect an individual's perceived health service need as indicated by their overall health condition (Luoma et al., 2012). The need factor may be determined by the severity of the disease, whether chronic or not. On being asked the reason why they had chosen to seek treatment, most participants in the FGDs and SSIs highlighted that their health had deteriorated severely and that they could no longer cope with daily life activities.

Participants also mentioned denial and unreadiness to change as barriers to help-seeking. Problem recognition, which usually comes from one's own perceived health status, is key to initiating help-seeking behaviour (Lubman et al., 2017). When individuals recognise that they are in a situation that requires help, they are more inclined to seek help or treatment.

The theme of culture, not adequately addressed by the ABM, is central to understanding treatment barriers.

6.7 Gaps in Theory and Literature: Contributions of the Present Study

This section explains the contribution of this research by examining gaps in the literature and limitations in theory. The contribution of this research is evaluated in the context of recommendations and implications for future practice.

6.7.1 Limitations/Gaps in the Socio-ecological Model

In addition to applying the SEM in the present study to understand the dynamics and underlying processes that explained the utilisation of health services, this model was useful in evaluating the effectiveness of community health promotion designs (McCammon et al., 2020). The SEM has been used to address the challenges of implementing new programmes (Kilanowski, 2017). This interdisciplinary model covers a broad scope when addressing health behaviours in the design of health promotion programmes (McCammon et al., 2020). In view of the findings of the present research, however, the limitations of this model are two-fold. Firstly, the model does not give insight into the extent to which ecological spheres affect or influence one another. The second limitation relates to feasibility constraints when the model is applied in health promotion programmes (Kilanowski, 2017), particularly in low-resource settings such as South Africa.

6.7.1.1 Lack of Clarity on the Measure of Influence that Ecological Spheres Exert on One Another. Although different contexts can present different measures of the influence that ecological spheres exert on one another, the SEM does not make an attempt to highlight this aspect (Kilanowski, 2017). From the statistical analyses of the quantitative data and the measurement of the treatment barriers in the present study, it was apparent that the systemic barriers were more influential than the attitudinal barriers. This implied that the systemic barriers, which related to higher-order ecological spheres such as the exosystem and the macrosystem, had more influence on help-seeking behaviour than did attitudinal barriers which related to lower-order spheres such as the microsystem and the individual (Stanger,

2011). Systemic barriers, such as fragmented service, and information gaps, which respectively related to the exosystem and the macrosystem, were measured as having a greater influence than denial and unreadiness to give up, as well as a lack of moral support, which related to the individual and the microsystem respectively. However, in other study or work contexts it is possible that the lower-order ecological spheres can exert more effect than the higher-order ecological spheres (Kilanowski, 2017; Stanger, 2011). The SEM does not adequately account for these variations relating to the relative influence that the ecological spheres exert on each other and on the individual (who is at the centre and is making a decision to use services or not).

6.7.1.2 Feasibility Constraints. This factor explains more about the feasibility challenges in implementing a theory than about a gap in what the theory itself articulates.

The findings of the present research reflected how people using substances faced multi-level constraints (at the macrosystem, exosystem, mesosystem, and microsystem levels) that prevented them from accessing treatment. In order to overcome these multi-level constraints, the SEM must acknowledge implications for planning, money, and time (Michell et al., 2018).

6.7.2 Limitations/Gaps in Andersen's Behavioural Model

The ABM has been credited for providing some useful perspectives on factors that influence utilisation of health services (Stephan et al., 2018). However, having put into perspective the findings of the present research and other related studies (A. M. Guerrero et al., 2018; Stephan et al., 2018), the researcher found it was apparent that the model fell short in explaining the role of culture, social structure, and health beliefs to account for individuals' decisions to utilise or not utilise treatment services.

Culture emerged as one of the most central themes in the FGDs and SSIs. However, the ABM on its own does not adequately account for the role of this theme.

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Culture, which relates to belief systems, was found to play a significant role in this research in determining service use. Different agents of socialisation, such as family, peer networks, and society at large, are responsible for inculcating norms, values, and belief systems that may become important in everyday life-decision-making processes (Vaidande, 2015).

South Africa is a multicultural country, and, as such, analysing local research output and policy formulation needs to be culture sensitive (Abdullah, 2015). For instance, there are conflicting perspectives between Western and traditional medicine approaches, and the choice to use one of these usually results in an individual completely ignoring the other option (Abdullah, 2015). Religion is also a mediating factor in this interrelationship. Christians may not necessarily oppose either Western medicine or traditional medicine, but they may choose the one they feel more comfortable with. Some people regard Western medicine and traditional medicine as alternatives, hence the two have been combined successfully in some instances, such as in some 12-step programmes (e.g. the AA and Narcotics Anonymous [NA]) (Gamble & O'Lawrence, 2016; Ginley et al., 2021).

Although culture emerged as one of the influential barriers to service use, the predisposing enabling, disabling, and need factors espoused in the ABM did not sufficiently account for the relevance of culture in help-seeking behaviour. Over the years, the ABM has undergone some modifications, and the literature gap relating to the model's failure to account for the influence of social structure in service use might need to be considered (Tesfaye et al., 2018). There is growing evidence from other studies to suggest that the model has not been able to adequately address the role of elements of social structure, such as culture, in help-seeking behaviour (A. M. Guerrero et al., 2018; Mululu, 2020; Stephan et al., 2018). Culture comprises belief systems, behaviours, and customs, and these have proven to

be pivotal in influencing the decision to seek treatment or not (A. M. Guerrero et al., 2018; Tesfaye et al., 2018).

The ABM seems to overemphasise need factors at the expense of health beliefs. ABM puts emphasis on the role of need factors, explaining that the decision to seek help is premised on individuals' evaluation of the severity of their health condition or the perceived threat from the disease (Tesfaye et al., 2016). This assertion fails to adequately address the equally important role of other non-need factors, especially in a community-oriented society where the group/culture plays a more significant role than individual needs and motivations (Tesfaye et al., 2018).

In this study, systemic factors were found to be more influential than attitudinal factors, and this finding substantiated the evidence provided in several other related studies (Isaak et al., 2020; Mannion et al., 2013). It is possible, however, that the prominence of systemic barriers in this study was because the samples used (in phases 2 and 3) focused more on people who were already receiving treatment and therefore had some system-related experience. The perceived need for treatment as identified in the quantitative data was found to have the least impact of all the other scales. Items on the scale, such as 'I didn't think I needed any help', received low endorsement. In the SSIs, the participants indicated that the decision to seek or not seek treatment was not solely based on individual's subjective perception of the threat of the disease as the need factor proposes. Their comments suggested that their decision was based on a series of factors propounded in the health belief model (Ofori, 2017), which include susceptibility to illness, severity of illness, costs of carrying out behaviour, health motivation, and perceived threat (McKellar & Sillence, 2020). Therefore, the utility of the ABM can be enhanced by integrating it with the health belief model.

6.8 Evaluation of the Research

In short, it can be said that the strengths of the research contributed to both its quality and value, and these are elaborated below. Nevertheless, as in the case of all research, the study had limitations, and there are areas for improvement or development through further research. These aspects are discussed in section 6.9.

6.8.1 Mixed Methods Research

MMR enabled the study to obtain multiple viewpoints on the phenomenon under study. Allana and Clark (2018) acknowledge that health research is complex as it requires detailed information and in-depth understanding, which justifies the integration of quantitative and qualitative approaches. MMR was used to measure and understand treatment barriers through different lenses to ensure thoroughness and completeness. It was important to incorporate both the qualitative and quantitative perspectives in contextualising patients' experiences in order to generate an integrated set of evidence to address the particular research question. Incorporating both these perspectives has been widely endorsed as a comparatively more useful research approach because it provides completeness in data collection and analysis, improving credibility, trustworthiness, abductive inspiration and confirmation (Zachariadis et al., 2013). Another advantage of MMR is that it avoids the indiscriminate and passive acceptance of both positivist and constructivist ways of knowing (Danermark, 2019).

Quantitative data provided the researcher with information that highlighted the relative importance of different treatment barriers, whereas the qualitative data gave diverse answers that focused on the experiences of people who used substances and sought treatment. Through convergence of the results, it could be observed that there was complementarity in the qualitative and quantitative findings.

6.8.1.1 FGDs and SSIs. The use of both exploratory and explanatory sequential designs was a unique and stand-out feature that facilitated thoroughness in qualitative data collection and analysis. SSIs were able to explain the themes that had been explored and measured in the FGDs. The findings generated by the two qualitative methods were interpreted with relative ease, providing insightful and creative in-depth understandings of the results. Participants needed no further clarity on the questions posed. Non-probability purposive sampling ensured that data was obtained from information-rich sources.

In order to overcome potential interpretation biases, the coding process, which is an important pre-step to thematic analysis (Braun and Clarke, 2019), was not done by the researcher alone. Two research assistants independently conducted their data coding, which the researcher compared and checked for congruency, thus contributing to the trustworthiness of results.

6.8.1.2 Questionnaire. Notably, the questionnaire achieved a high response rate (97.3%), which could indicate that most of the participants were willing to participate, which in turn increased the likelihood that reliable data were obtained An appeal was made to the participants to base their decision to participate/not participate in the questionnaire on their own individual opinions. Participants were further urged not to base their questionnaire responses on generally accepted beliefs, such as that harm reduction hinged on the non-judgemental provision of services, or that the quality of individual and community life and well-being depended necessarily on the cessation of all substance use. Participants were encouraged to share their own views about what made an intervention successful.

The motivation to adapt the questionnaire was discussed in Chapter 4. Also, as mentioned in the methods (section 4.6.3.1), three experts' opinions were solicited to assess and improve the construct validity of the questionnaire and to rephrase items that could potentially cause respondent errors (Ahlquist, 2018). A total of 206 young adults completed

the survey with 32 items. After conducting a factor analysis and critically considering items that were redundant and should be eliminated, the researcher reduced the questionnaire items from 32 to 26. The strength of the questionnaire was confirmed as the ratio of subjects to variables was 6:1, which fell within the acceptable range of 2:1 to 100:1. This improved the reliability of the factor analysis (Costello & Osborne, 2005). Generally, a ratio of 5:1 is deemed to be acceptable (Hair et al., 2010).

6.9 Limitations of the Study

The limitations mentioned below relate to the characteristics of the study that may have impacted negatively on the quality of the research.

6.9.1 Geographical Area

The research was done in Tshwane, a municipal area that falls in Gauteng, South Africa. Although several other related studies have been done in the country, they have mostly been done in the Western Cape (Myers et al., 2010). The findings of these studies cannot be directly compared because of the dissimilar sociodemographic variables of the samples. As the findings in the present study are specific to the Tshwane area, the extent to which they are generalisable may be compromised.

6.9.2 Sample Size and Composition

The researcher planned to recruit to saturation, and data saturation appeared to have been reached in both the FGDs and SSIs. This was observed when no new themes appeared to be emerging, and therefore further recruitment was regarded as unnecessary.

According to Festinger and Dugosh (2012), research on SUD is generally plagued by low recruitment rates and high attrition owing to a wide range of factors, such as comorbid health, social problems, and participants' lack of motivation to follow through with research. Further, low participant turnout is a characteristic of substance use studies, and participants' willingness to give factual and truthful responses may also be questionable (Festinger &

Dugosh, 2012). In recent times, MMR is increasingly used, and data triangulation is applied to blend results into a cohesive, low-biased methodology (Dyal et al., 2015).

One limitation of sampling participants for this study was that the researcher recruited people who had already joined COSUP. As a result, more systemic-related barriers were reported by the participants. Although there was the advantage of having participants with first-hand experience of the systemic barriers of healthcare services (e.g. related to treatment registration, initiation, maintenance, and completion), the ideal situation would have been to have two samples – one sample comprising people who had not experienced any form of treatment, and another sample of people who had completed treatment or were in treatment.

To a certain extent, because of the absence of a 'purely' non-treatment substance-using sample in the research, this research could be perceived to have obtained limited data. The data it gathered were about people who were using substances but were not receiving help, and about people currently experiencing barriers to help. The inclusion of a 'pure' non-treatment substance-using sample could have been invaluable in adding validity to the results. For instance, the study by Myers et al. (2010), which included samples of treatment-using clients and non-treatment-using clients, was able to reveal some non-systemic barriers such as perceived need for treatment. Therefore, information on these barriers could be gathered because the one sample group who had no treatment experiences, tended to give information about what they, as individuals, experienced as barriers to treatment, and also about other non-systemic barriers.

On the other hand, the use of peer educators as participants in the present study helped to project the views of those who had not received treatment. As the peer educators worked with people in the community who had not received treatment, they got to understand their concerns relating to not seeking treatment. At the same time, the peer educators tried to motivate these people to go for treatment. Therefore, some of the views expressed by the

peers in the FGDs were views based on the perspectives of people in the community who were not yet in treatment.

6.9.3 Influence of Demographic Variables

Since the study focused on a restricted age group (in the range of 18 to 29 years), it did not establish the influence of age on other age groups' perceptions of barriers. Also, the samples were dominated by the presence of one race, namely, black people, and, as a result, differences in the perception of barriers could not be established across racial lines.

6.9.4 Statistics

It can be observed that the SACENDU biannual reports considered in the present study are, to a greater extent, quantitative in nature, providing less detailed qualitative information to explain why and how phenomena exist (B. Cummings et al., 2021).

6.9.5 Imported Questionnaire Measures and Adaptation of the Questionnaire

As this research showed, there is a need to develop and validate a measurement tool to self-report on perceived barriers to substance use treatment. Such a measurement tool will be able to explore and measure the role of context-specific information, for example, relating to culture.

Although there are locally validated tools and questionnaires, such as the Stages of Change Readiness and Treatment Eagerness Scale (SOCRATES), which was used by Myers et al. (2010), the researcher decided to adapt the 50-item barriers questionnaire, for motivations outlined in Chapter 4, section 4.6.3.1.

However, the researcher observes that by taking out 'similar' questions from the 50-item questionnaire in an attempt to minimise redundancy, it is possible that this took out balancing questions and lowered the reliability of the scales.

6.9.6 Role of Gender

A literature gap was found to exist regarding the role of gender in the perception of treatment barriers. Moreover, the scant information that is available is inconclusive (Hamilton et al., 2016; C. A. Green, 2006). Therefore the researcher had little existing data to rely on. The present research sought to further examine the role of gender in terms of the way males and females perceived treatment barriers.

6.10 Recommendations

Based on the findings of the present research that the aspects of practice, policy, and research related to SUD treatment needed improvement, some recommendations are made.

These recommendations include the expansion and reorientation of services, the reinforcement of supportive processes and services, mobilisation of resources, and a change in community processes and attitudes. These strategies are aimed at strengthening community resilience, and preparing and capacitating society at large to respond effectively to the challenges associated with harmful substance use.

6.10.1 Expansion and Reorientation of Services

There is a need for expansion and reorientation of services in order to close the substance use treatment gap.

6.10.1.1 Providing Substance Use Treatment Services in Primary Care. Following the 1997 White Paper on healthcare, the South African government put in motion the deinstitutionalisation of mental healthcare services, which include substance use treatment, and the movement of these services to primary healthcare (Naanyu, 2009). However, the data and evaluation indicators show that the goals of deinstitutionalisation have not been effectively achieved in practice (Naanyu, 2009).

Against a background of constrained budgets for health and human resources in South Africa, there is a growing need for the provision of mental health services, such as COSUP's

substance use programme, in primary healthcare (Docrat et al., 2019; Pasche & Myers, 2012). Similar calls for the integration of substance use services into primary healthcare come from other sub-Saharan countries (Mugisha et al., 2017; Mwape et al., 2010).

The advantages of locating mental health services, such as substance use treatment, in primary healthcare is that it makes services accessible to community members, who can then also participate in the implementation of initiatives. Additionally, apart from achieving improved health outcomes at a reasonable cost, the delivery of mental health services under primary healthcare has been found to minimise stigma and discrimination (Docrat et al., 2019). Theoretically, the SEM also provides useful insights into the design and promotion of health programmes (McCammon et al., 2020). The multifaceted variables referred to above need to be considered in designing and implementing effective and impactful interventions (Jalali et al., 2020).

6.10.1.2 Task Sharing. Task sharing is designed to ease the pressure on the delivery of mental health services (Brooke-Sumner et al., 2021). Task sharing is an innovation that responds to the universal inadequacy of mental health services, and its impact has been felt particularly in LMICs. According to this approach, which is gaining traction, specific mental health services are delegated to non-specialist personnel who are guided and supported by trained teams (Brooke-Sumner et al., 2021; Myers et al., 2018). Although COSUP is implementing task sharing, to a certain extent through the use of community health workers there are not enough personnel to deliver these services.

The lack of adequate personnel at some COSUP sites compromises the efficiency of service delivery. In particular, there is a shortage of clinical associates and social workers at many different COSUP sites, and this shortage puts pressure on existing personnel and services (Hugo et al., 2020; Morgan et al., 2019). There is a need for innovative strategies to offset this mounting pressure on mental health services. The US Department of Health and

Human Services has developed certified community behavioural health clinics which operate on the principle of task sharing. The services provided by these clinics will hopefully bridge the gap by fulfilling the unmet need for addiction services and expanding access to community-based treatment (Foney et al., 2019). These services receive medical aid reimbursement rates based on their projected costs of expanding services to meet the needs of vulnerable populations (Foney et al., 2019; Morgan et al., 2019). The certified community behavioural health clinics were launched in eight states in 2017, and have achieved significant success (Foney et al., 2019). Results in May 2018 showed that 94% of the clinics reported an increase in the number of substance users treated for substance use-related disorders (Foney et al., 2019).

In the present research, participants raised concerns about the efficiency of substance use service delivery, and the lack of sufficient resources for substance use treatment services. Long waiting lists have been the order of the day, and this has dissuaded potential clients from accessing treatment. Participants also raised concerns about the lengthy periods of time they had to wait to access treatment, leaving some clients with no other option but to buy expensive medication themselves or to drop out. However, these problems may be overcome with innovative interventions such as the certified community behavioural health clinics in the USA. Of these clinics, 68% reported a decrease in patient waiting times, with nearly half of them providing same-day access to care (Foney et al., 2019). Such an intervention, if implemented correctly, would improve access to treatment; therefore, the implementation in South Africa of task-shared interventions needs to be accelerated (Brooke-Sumner et al., 2021; Myers et al., 2018). To improve the functioning of COSUP, the role and contribution of community health workers can be assessed, and training can be provided in different areas in order to increase utility. Some considerations that need to be taken into account include

accurate patient information systems, organised services, and a strong management team (Brooke-Sumner et al., 2021).

6.10.1.3 Provision of Gender-Specific and Gender-Sensitive Treatment Programmes. The findings of this research showed that the perception of barriers was higher among females than among males. The percentage of females (21%) who are currently patients of COSUP is considerably less than that of males (79%). Results showed that the two stigma barriers, namely, discrimination in the community, and labelling and rejection, were rated significantly more important as barriers to treatment by females than by males. This is consistent with evidence from other research, suggesting that females using substances experience elevated stigma because their role in most societies is traditionally viewed as that of caregivers (Stringer & Baker, 2018).

Compared to their male counterparts, females have been found to experience additional barriers in the form of maternal responsibilities, pregnancy, a need to provide child care, and less partner support (S. F. Greenfield & Grella, 2009). Substance use healthcare centres may be encouraged to adopt gender-specific and gender-sensitive programmes because some females may prefer female-only programmes (Weisner, 2005). These may include matching the gender of the therapist and the client, especially in the case of childcare support systems and networks, and providing ancillary services for pregnant women and women who have had perinatal experiences and those who come from a background of sexual abuse and gender-based violence (S. F. Greenfield & Grella, 2009). Further, males with post-traumatic stress disorder resulting from military exploits or other incursions of a traumatic nature may benefit from male-only programmes (Weisner, 2005).

6.10.1.4 Cultural Competence. Because South Africa is a multicultural country, and because of the importance of religious, traditional, and Western approaches to the treatment of mental health illnesses such as SUDs, there have been calls for collaboration between

traditional health practitioners and primary healthcare (Campbell-Hall et al., 2010). As has been found from the results of this study, taking culture into consideration in the provision of treatment services is important. Cultural competence refers to a range of cognitive, affective, and behavioural skills needed to enable one to effectively work with people from diverse backgrounds (Perry & Southwell, 2011).

Substance use healthcare providers may be encouraged to make use of voluntary spiritual discussion groups. Participants in this study were of the view that spirituality could complement and supplement (but not replace) the formal substance use treatment services available. Long periods of sobriety and surrender to a 'higher power' have been positively associated with spirituality (Dermatis & Galanter, 2016; Lewis & Allen, 2017), and it has also been indicated that spirituality is a significant predictor of recovery initiatives such as the AA and NA, particularly in the USA (Gifford, 2019; Heinz et al., 2010). It may be worthwhile to consider integrating voluntary spiritual discussion groups with formal treatment services, but in a manner that embraces the different needs of individuals (Heinz et al., 2010).

Traditional health practitioners play an important role in providing mental health services in some South African communities (Zuma et al., 2016). The exact value of their contribution has been an issue of debate, and it has been suggested that some effort be invested in looking at ways of tapping into the beneficial contributions of traditional medicine (Campbell-Hall et al., 2010; Zuma et al., 2016). Ventures such as these can also assist policymakers in devising effective implementation strategies that optimally harness the contribution of traditional medicine to substance use treatment.

6.10.2 Reinforcement of Supportive Processes and Services

This aspect involves taking measures to ensure that efforts are made to reduce/close the treatment gap. These efforts include continuously reinforcing processes that promote an efficient substance use treatment service.

6.10.2.1 Physical Accessibility. One way to enhance the utilisation of healthcare services is by making them more physically accessible. If services are geographically easily accessible, it would address the challenge of travelling long distances to access treatment and of incurring high transport costs (Khampang et al., 2015; Myers et al., 2010). The cost of transport is an impediment to healthcare utilisation, considering that most young adults using substances are unemployed or have unstable incomes (Van Zyl, 2013).

The present study revealed an apparent inequitable distribution of help centres, making it harder for some clients to access treatment. For instance, if their needs are taken into consideration, the eastern parts of Tshwane (Mamelodi and Lusaka) as well as its northern parts (Soshanguve) are characteristically underserviced. Thus, there is a need for resource mobilisation in order to address this challenge.

6.10.2.2 Client Service Improvement Training for Healthcare Workers. Improved client service skills of healthcare workers may increase the motivation of potential clients to seek help and training (Babatunde et al., 2021; Marais & Petersen, 2015). Findings from the FGDs and SSIs confirmed clients' expectations of improved client-handling approaches. Comparing the attitude of healthcare workers towards some other patients in hospitals and other healthcare facilities, healthcare workers were generally found to tend to have a negative attitude towards substance use patients. This stems from an adoption of a task-oriented approach characterised by less personal engagement and reduced empathy (Worley, 2019). Working with this vulnerable key population group requires some enhanced skills and adequate support structures in order to deliver optimal care services (Worley, 2019).

6.10.2.3 Revival and Strengthening of Community-Based Support Groups. In the FGDs and SSIs, calls were made to revive CAGs. COSUP has facilitated the formation of CAGs, which consist of people using substances, parents, and families affected by substance use. CAGs are non-judgemental groups where members help and strengthen one another to deal with issues of substance use, treatment, and care. According to the participants, due to factors such as inadequate funding, these once active CAGs have now become largely dysfunctional.

With the revival of CAGS and the strengthening of other community-based support groups for people using substances, better participation in treatment programmes and the achievement of their outcomes can be enhanced.

6.10.3 A Change in Community Attitudes

Most pandemics, including COVID-19 and HIV/AIDS, and mental health disorders, such as SUDs, lead to communities having negative attitudes towards and stigmatising those experiencing substance use-related problems (Cheng et al., 2018; Ozkok et al., 2022). Changing these negative attitudes and providing moral support are pivotal in motivating patients to seek treatment (Cheng et al., 2018).

6.10.3.1 Destigmatisation Through Improved Awareness of SUDs and Mental Health. Stigma is one of the strongest barriers to help-seeking and treatment. Stigma comes from families, the community, healthcare institutions, and the wider society (Sorsdahl et al., 2012; Tuliao & Holyoak, 2020). Stigma prevents people using substances from seeking help.

Stigmatisation can be partly ascribed to a lack of adequate information and understanding about a health or social phenomenon, and it leads to alienation, judgement, and ostracism (Corrigan et al., 2014). Creating a greater awareness of SUDs is a prerequisite for the destigmatisation of SUDs. A review of several studies across the world by Yang et al. (2017) has revealed a significant association between stigma and reduced uptake of substance

use treatment services. This finding has been corroborated in related studies where HIV-related stigma is linked to an increased unlikelihood of disclosing HIV status, heightened mental distress, and inability to establish new support systems (Quinn et al., 2018; Reif et al., 2021).

As was done in the case of the HIV pandemic and the antiretroviral harm-reduction strategy, discussions about substance use and mental health services in healthcare institution education, social development, employee wellness programmes, and many other platforms need to be advocated (Aaraj & Abou Chrouch, 2016). Increased efforts are needed to engage communities in substance use and mental health issues through participation in a wide range of programmes. For example, substance use programme implementers may request opportunities to make brief presentations on public forums organised by other public organisations, and seek endorsements from substance-using celebrities, role models and public figures.

6.10.3.2 Engagement with Police Services. High-level stakeholder engagement with law enforcement and police services is highly recommended so that they become partners and not adversaries in substance use treatment drives. This is particularly important in the case of methadone programmes, which are evidently misunderstood. A fundamental shift in the attitude of the police service towards people using substances may be important in driving the agenda of reducing the drug use problem and motivating users to seek treatment (Priester et al., 2016; Sung et al., 2011). A shift in attitude may be achieved by ensuring that the police service is educated in alternative treatments such as harm-reduction strategies (Duby et al., 2018).

This study's qualitative data revealed that people using substances are deterred from accessing help and treatment by the over-surveillance of treatment centres as well as the punitive measures taken by the police. Non-punitive services can lead to greater participation

in substance use treatment programmes, and even police-led treatment referral programmes have been welcomed by people using substances (Schiff et al., 2017). Police services should be known for supporting the cause/agenda of SUD rehabilitation and not for being intimidating and threatening. There have been suggestions to consider the use of less aggressive law enforcement strategies (Duby et al., 2018; C. D. Parry et al., 2004). The alleged indiscriminate arrests of treatment seekers and the confiscation of their medication need to be curtailed in order to ameliorate substance-use relapse. Jürgens et al. (2010) seem to argue that the police need to be trained in protocols for initiating and supporting substance use treatment.

In view of the above recommendations, one can assert that an integrated multi-level approach is required. These multiple levels correspond with several of SEM's levels. An integrated approach is necessary in order to account for the interrelationships that exist between the factors and the variables that affect individuals, families, and communities.

6.10.3.3 Community Education in Treatment Services. Since the participants identified poor community understanding of the effective management of opioid use disorder, potential clients and community members may have a better insight into OST and have realistic expectations of it if they are made to understand that opioid dependence is a chronic condition that requires (long-term) maintenance treatment. It is common among people on OST to engage in concurrent illicit opioid usage, particularly due to under-dosing, and efforts should be made to prescribe the use of an agonist in accordance with recommended practice (Gloeck et al., 2021). A return to illicit opioid use is very common in abstinence-based rehabilitation (with or without detoxification) and it is also likely in contexts where OST is terminated early (Gloeck et al., 2021; WHO, 2009). The duration of OST treatment can be several months or lifelong, depending on a range of individual, social, and clinical factors (WHO, 2009).

6.10.4 Mobilisation of Resources

There is a need to step up efforts to mobilise resources for the treatment of SUDs. For treatments such as OST, optimal doses are required to increase retention and adherence, both of which contribute significantly to the attainment of treatment goals. Methadone is expensive, and COSUP clients who are self-funded have shown that the odds of retention are against them (Gloeck et al., 2021). As an illustration: in 2017, COSUP's cost of methadone was R2 400 (US$160) per person per month at the optimal dose (Hugo et al., 2020). This is way beyond the reach of many in LMICs such as South Africa.

6.11 Recommendations for Further Research

Building upon the findings of this research, the researcher will expand on some fundamental areas in order to consolidate future work. The recommendations for future research are linked to the study's research aims and questions.

6.11.1 Influence of Demographic Variables on the Perception of Treatment Barriers

Gender-based differences in the perception of barriers to help-seeking were identified in this research. However, further research to examine other socio-demographic variables, such as age, race, education level, employment status, income, and marital status, can potentially have a bearing on the perception of barriers.

6.11.2 Spirituality Complementing Biomedical Approaches to Substance Use Treatment

Although there have been urgent calls to integrate spirituality into substance use recovery programmes, it is difficult to establish specific measurable aspects of spirituality that may be significant in influencing treatment and recovery. As there is a paucity of research in this area, further research focusing on the effectiveness of spirituality in contributing to substance use treatment and recovery is needed.

6.11.3 Accelerated Research Output to Respond to Changing Trends in Substance Use

Existing research on changing trends in substance use is limited. Data that are available are on easily accessible populations such as students (Peltzer et al., 2010). It is essential that research efforts be accelerated to obtain up-to-date data on the ever-changing substance use patterns among young people because these patterns change in response to changing economic, social, and political structures. The evolving patterns of substance use present new treatment challenges and require new strategies to motivate individuals to seek treatment. Outdated substance use data cannot answer the questions of the day. For example, the numbers of people who use substances grow all the time, and this requires new innovative strategies to curb the problem.

6.11.3.1 Lack of Up-To-Date Data. The SACENDU project, established in 1996, has for the past 25 years been active in providing biannual reports on substance use trends across South Africa based on data obtained from treatment centres (Minnaar, 2015). However, these reports concern treatment centres only and do not provide statistics on substance use in communities. As part of its objectives, the present research sought to bridge gaps in the literature by examining phenomena on which data seemed to be limited.

For example, up-to-date data on treatment barriers in South Africa are limited (Peltzer & Phaswana-Mafuya, 2018). Furthermore, most of the data that are available have been collected using methods (e.g. questionnaires) that have been developed in other parts of the world, and these may not fit the local context (Gjersing et al., 2010). Another dimension of limited data relates to the role of gender in the perception of treatment barriers. This research endeavoured to address these gaps. Although there is a large body of work on the topic of substance use in general, most of the research done in the Gauteng province that specifically focuses on substance use treatment barriers dates as far back as more than a decade ago (Myers et al., 2018; Peltzer & Phaswana-Mafuya, 2018; Sorsdahl et al., 2012).

6.11.3.2 Lack of Breadth in the Data. As mentioned earlier, the data reported by SACENDU are captured only from treatment centres (B. Cummings et al., 2021). This, therefore, means that data about people using substances in the communities who do not present themselves for treatment are not captured. As highlighted in this research, most existing research and data on substance use relate to the Western Cape and to a certain extent to KwaZulu-Natal (Nyabadza & Coetzee, 2017; Peltzer et al., 2010). The main reason for this is that the Western Cape is associated with some of the highest rates of substance use and drug-related crime activities in South Africa (Nyabadza & Coetzee, 2017). This situation has led to a paucity of data and literature on other provinces.

Other complementary sources of data are few and far between (Myers et al., 2010; Peltzer et al., 2010).

6.11.3.3 Decentralisation of Research Activities to Include All Provinces. Although the Western Cape and Gauteng are ranked first and second respectively in terms of high rates of substance use and SUDs in South Africa, the statistics in other provinces are equally a cause for concern. When other provinces are under-researched, this may not only compromise national policy formulation and intervention strategies at a national level but may also result in misleading national statistics.

6.11.4 Alignment of Policy and Service Delivery with Findings

The immediate family members of people using substances form the microsystem (Ngwenya et al., 2020). Systemic therapeutic approaches may be necessary for family members to become integrated into the recovery process of the substance user in order for them to provide the necessary moral support. At the community level (exosystem), mobilisation of resources needs to be put in place in more facilities so as to increase access to available treatment (Brooke-Sumner et al., 2021; Myers et al., 2018). The mesosystem may involve psychoeducation for co-workers or school mates of substance users in order for them

to render the necessary moral support (Wang et al., 2016). Using techniques such as motivational interviewing, substance users can be encouraged to adopt healthier life habits (Barnett et al., 2012). COSUP may need to advocate a shift in public policy regarding law enforcement and policing relating to people using substances, and regarding the integration of substance use treatment with the public healthcare (exosystem).

When one assesses a multi-level intervention approach, questions may arise whether the resources and time commitment needed for such an endeavour are practicable and feasible. It may not be easy to implement all of the recommended multi-level interventions at one time. Cultural diversity and variability relating to factors such as the age, gender, and characteristics of a given population, mean that a one-size-fits-all approach cannot be used in different contexts (Michell et al., 2018). However, in the diverse and multicultural South African population, such multi-level interventions are needed for effective health changes in order to address challenges faced by the entire society (Michell et al., 2018). It has been suggested that multi-level interventions can be better implemented alongside other systems such as the RE-AIM framework (Kwan et al., 2019).

6.12 Conclusion

The study revealed a wide range of factors that impeded the utilisation of treatment services by people using substances. The researcher critically evaluated the barriers that impede the accessing and utilisation of treatment services among young adults living with a substance use disorder in Tshwane, South Africa. Findings showed that there are attitudinal and contextual barriers that prevent young adults from seeking help and treatment services. The identified treatment barriers in this study were stigma, lack of perceived treatment need, denial and unreadiness to give up substances, privacy concerns, lack of resources and support, lack of information about treatment services, financial costs, and fragmented services. Culture, a factor that is often overlooked in most studies, emerged as one of the

most significant treatment barriers/facilitators in this study. The cultural perspectives on the role of religion/spirituality and traditional healing in the context of South Africa were explored in this study, affirming the view that the complementary use of biomedical treatment approaches and traditional and cultural healing approaches could play a role in mitigating the effects of SUDs. The study succeeds to add new dimension to the role of gender in the perception of treatment barriers. To conceptually frame this thesis, the researcher used the Bronfenbrenner's Socio-Ecological Model, and the Andersen's Behavioural Model to unpack the multi-level nature of treatment barriers that hinder treatment and help-seeking behaviour. Important recommendations for improved treatment services were made, and it was further suggested that broad consultations should take place to design tailor-made interventions for specific communities as the population and cultural characteristics of different communities differed. The integration and the discussion of this study's findings offered some insights into strategies that could be considered to improve the help-seeking behaviours of people with mental health problems in general. The study brings forth the importance of integrating patient and service provider perceptions in developing responsive evidence-informed treatment interventions. Recommendations were made to enable policymakers and health promotion practitioners to motivate people using substances to overcome barriers and seek treatment.

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Appendix A

Ethics Approval – Faculty of Humanities, University of Pretoria

8 October 2020

Dear Mr T Nyashanu

Project Title: Barriers to treatment among young adults living with a substance use disorder: Findings from working with the Community Oriented Substance Use Program (COSUP) in Tshwane, South Africa.

Researcher: Mr T Nyashanu

Supervisor(s):   Prof MJ Visser

Department: Psychology

Reference number: 20795913 (HUM012/0820)

Degree: Doctoral

I have pleasure in informing you that the above application was approved by the Research Ethics Committee on 1 October 2020. Data collection may therefore commence.

Please note that this approval is based on the assumption that the research will be carried out along the lines laid out in the proposal. Should the actual research depart significantly from the proposed research, it will be necessary to apply for a new research approval and ethical clearance.

We wish you success with the project.

Sincerely,

Prof Innocent Pikirayi

Deputy Dean: Postgraduate Studies and Research Ethics, Faculty of Humanities

UNIVERSITY OF PRETORIA

e-mail: PGHumanities@up.ac.za

Appendix B

COSUP's Approval Letter to Conduct Research

(Please see next page.)

Tichaenzana Nyashanu   28 July 2020

Depart of Psychology

University of Pretoria

Approval for study:
Barriers to treatment among young adults living with a substance use disorder: Findings from working with the Community Oriented Substance Use Program (COSUP) in Tshwane, South Africa".

I confirm receipt of your application and documents to do the above study.

I hereby approve that you do the study in COSUP.

We will require you to cooperate with COSUP management and COSUP Research Team, give regular feedback and provide a final report recognising the contribution of COSUP staff.

regards

Prof Jannie Hugo

HOD, Department of Family Medicine

Focus Group – Information and Consent Form

Appendix C
Focus Group Information and Consent Form

Introduction
You have been invited to participate in a focus group discussion being conducted by Mr Tichaenzana Nyashanu under the direction of the University Pretoria's Department of Psychology. The focus group discussion is part of the wider study entitled "Barriers to treatment among young adults living with a substance use disorder: Findings from working with the Community Oriented Substance Use Program (COSUP) in Tshwane, South Africa".

Purpose
I understand that the purpose of this study is to yield responses that can help to identify the barriers to treatment among young adults living with SUD, and that can lead to the development of evidence-based intervention strategies.
The study is also being conducted as part of the thesis requirements for the student investigator.

Procedure
The focus group discussions are scheduled to take place at COSUP sites, with each session expected to have a running time of about one and a half hours. In this study participants will be placed in groups of 6-12 individuals and a moderator will ask the group several questions while facilitating the discussion. The focus group discussions will be audio-recorded by a research assistant but because of the personally identifiable information arising from the discussion, the study will pseudonymise the data in order to preserve confidentiality and participant anonymity. There shall be no correct or incorrect answers to focus group questions. The study seeks to obtain many varying viewpoints and it is encouraged that all group members contribute honestly, even when one feels his/her responses contradict those of other group members.

Participation
I agree that participation is on voluntary basis and this means any person may choose to, or not to participate in the focus group, or may choose to withdraw at any stage during the research. I accept that there shall be no expenses or payments for participation.

Benefits and Risks
I acknowledge that there may be indirect benefits for participation in this study. The responses yielded in this study are to be analysed in order to make meaningful inferences that can be used to develop contextually relevant intervention strategies that can benefit people abusing substances, their families and the communities from which the come. No risks are anticipated beyond those experienced during a normal and average conversation.

Additional help
If you feel that participation in the research have upset you in any way and you want to discuss your well-being with someone, you can contact the researcher who will refer you to the counsellors at the COSUP centre to assist you.

Contact Details: Department of Family Medicine
Faculty of Health Sciences
7th Floor, HW Snyman North Building
Prinshof Campus
012 356 3302

Confidentiality and Data Storage
The names of the participants will not be used in the report or anything that would make them personally identifiable in any outputs from the research. Participants shall be given pseudonyms for the purpose of reporting. Data shall be securely kept in locked up cabinets with access passwords restricted to only the authorised members of the research team and department of psychology team handling the data. Only authorised persons can have access to the data. Electronic data will be protected using secure passwords and restricting the use of group login ids and shared accounts. The data may also be used for future research. The researcher shall have the right to rescind the confidentiality protocol only when a third party in the form of a certified service provider assisting the program or when the legal system may need to be involved. An example of such an exception is when there is a suicidal or homicidal threat. The results of the study may be published in academic journals or at conference presentations in a manner that does not make participants personally identifiable. Copies of information will be kept at the University of Pretoria's Psychology department for a minimum period of 15 years.

Access to Personal File: As a research participant, i agree that my personal file can be accessed by the researcher for the sole purpose of the research.

Approval
A permission letter to conduct this study has been issued by COSUP through the Department of Family Medicine (University of Pretoria) which is spearheading the COSUP project, alongside other partners such as the City of Tshwane and the Gauteng Departments of Health and Social Development.
This study has been reviewed and given the greenlight by the Faculty of Humanities, research ethics committee of University of Pretoria.

Complaints: Who Should I contact if I have a concern, complaint or anything I should know about the study? If you have questions about this study, or you have experienced adverse effects as a result of participating in this study, you may contact the researcher whose information is provided below. If you have questions regarding the rights as a research participant, or if problems arise which you do not feel you can discuss with the researcher, please contact the supervisor, and contact details are below.
Complaints or concerns arising regarding this study may be directed to:

Supervisor
+27 828898338
maretha.visser@up.ac.za
University of Pretoria
Department of Psychology

Researcher
Names…………………………………………….. Surname…………………………
Date…………………………………………. Signature…………………………

Participant
I understand this information and agree to participate fully under the conditions given above.
Names……………………………………………. Surname…………………………..
Date …………………………………….………… Signature…………..……………..…

Questionnaire – Information and Consent Form

Introduction

This research is being conducted by Tichaenzana Nyashanu, a PhD Psychology student at the University Pretoria's Department of Psychology. The self-report questionnaire form to be completed is part of the wider study entitled "Barriers to treatment among young adults living with a substance use disorder: Findings from working with the Community Oriented Substance Use Program (COSUP) in Tshwane, South Africa"

Purpose

I understand that the purpose of this study is to yield responses that can help to identify the barriers to treatment among young adults living with SUD, and that can lead to the development of evidence-based intervention strategies.

The study is also being conducted as part of the thesis requirements for the student investigator.

Procedure

The filling in of the questionnaire form is scheduled to take place at COSUP sites, with each participant being provided with the required stationery. In this study participants will be requested to rate the items in the Barriers Questionnaire on a 4-point scale of zero to three. The rating on each item is a reflection of the influencing strength of that particular item in determining the decision of the participant to seek treatment or not. The self-report questionnaires will be administered individually and the researcher will request participants to seal their completed questionnaire forms in unmarked envelopes that will be provided. The envelopes will then be marked with pseudonyms in order to preserve confidentiality and participant anonymity. Participants are urged to complete the whole questionnaire form.

Participation

I agree that participation is on voluntary basis and this means any person may choose to, or not to participate in the questionnaire exercise, or may choose to withdraw at any stage during the research. I accept there shall be no expenses or payments for participation.

Benefits and Risks

I acknowledge that there may be indirect benefits for participation in this study. The responses yielded in this study are to be analysed in order to make meaningful inferences that can be used to develop contextually relevant intervention strategies that can benefit people using substances, their families and the communities from which the come. There are no known risks or risks anticipated beyond those experienced during questionnaire exercise.

Additional help
If you feel that participation in the research have upset you in any way and you want to discuss your well-being with someone, you can contact the researcher who will refer you to the counsellors at the COSUP centre to assist you.
Contact Details: Department of Family Medicine
Faculty of Health Sciences
7th Floor, HW Snyman North Building
Prinshof Campus
012 356 3302

Confidentiality and Data Storage
The names of the participants will not be used in the report or anything that would make them personally identifiable in any outputs from the research. Data shall be securely kept in locked up file cabinets with access passwords restricted to only the authorised members of the research team and department of psychology team handling the data. Electronic data will be protected using secure passwords and restricting the use of group login ids and shared accounts. The data may also be used for future research. The researcher shall have the right to rescind the confidentiality protocol only when a third party in the form of a certified service provider assisting the program or when the legal system may need to be involved. An example of such an exception is when there is a suicidal or homicidal threat.
The results of the study may be published in academic journals or at conference presentations in a manner that does not make participants personally identifiable. Copies of information will be kept at the University of Pretoria's Psychology department for a minimum period of 15 years.

Access to Personal File: As a research participant, i agree that my personal file can be accessed by the researcher for the sole purpose of the research.

Approval
A permission letter to conduct this study has been issued by COSUP through the Department of Family Medicine (University of Pretoria) which is spearheading the COSUP project, alongside other partners such as the City of Tshwane and the Gauteng Departments of Health and Social Development.
This study has been reviewed and given the greenlight by the Faculty of Humanities research ethics committee of University of Pretoria.

Complaints: Who Should I contact if I have a concern, complaint or anything I should know about the study? If you have questions about this study, or you have experienced adverse effects as a result of participating in this study, you may contact the researcher whose information is provided below. If you have questions regarding the rights as a research participant, or if problems arise which you do not feel you can discuss with the researcher, please contact the supervisor, and contact details are below.
Complaints or concerns arising regarding this study may be directed to:

Supervisor
+27 828898338
maretha.visser@up.ac.za
University of Pretoria
Department of Psychology

Researcher

Names…………………………………………….. 		Surname…………………………

Date………………………………………….   Signature…………………………….

Participant
I understand this information and agree to participate fully under the conditions given above.

Names…………………………………………   Surname…………………………..
Date   …………………………………..   Signature…………………………..

Appendix E

Semi-structured Interview – Information and Consent Form

Introduction

You have been invited to participate in interviews being conducted by Mr Tichaenzana Nyashanu under the direction of the University Pretoria's Department of Psychology. The semi-structured interviews are part of the wider study entitled "Barriers to treatment among young adults living with a substance use disorder: Findings from working with the Community Oriented Substance Use Program (COSUP) in Tshwane, South Africa"

Purpose

I understand that the purpose of this study is to yield responses that can help to identify the barriers to treatment among young adults living with SUD, and that can lead to the development of evidence-based intervention strategies. The study is also being conducted as part of the thesis requirements for the student investigator.

Procedure

The face-to-face semi-structured interviews are scheduled to take place at COSUP sites, with each session expected to have a running time of about 30-45 minutes. In this study participants will be interviewed individually and the interviewer will ask each participant several questions. The interviews will be audio-recorded by a research assistant but because of the personally identifiable information, the study will pseudonymise the data in order to preserve confidentiality and participant anonymity. There shall be no correct or incorrect answers to the interview questions. The study seeks to obtain many varying viewpoints and it is encouraged that all persons to be interviewed give their own personal opinions relating to the questions to be asked.

Participation

I agree that participation is on voluntary basis and this means any person may choose to, or not to participate in the interviews, or may choose to withdraw at any stage during the research. I accept that there shall be no expenses or payments for participation.

Benefits and Risks

I acknowledge that there may be indirect benefits for participation in this study. The responses yielded in this study are to be analysed in order to make meaningful inferences that can be used to develop contextually relevant intervention strategies that can benefit people abusing substances, their families and the communities from which the come. There are no known risks anticipated beyond those experienced during a normal and average conversation.

Additional help
If you feel that participation in the research have upset you in any way and you want to discuss your well-being with someone, you can contact the researcher who will refer you to the counsellors at the COSUP centre to assist you.
Contact Details: Department of Family Medicine
Faculty of Health Sciences
7th Floor, HW Snyman North Building
Prinshof Campus
012 356 3302

Confidentiality and Data Storage
The names of the participants will not be used in the report or anything that would make them personally identifiable in any outputs from the research. Participants shall be given pseudonyms for the purpose of reporting and pseudonymising data in order to ensure confidentiality. Data shall be securely kept in locked up file cabinets with access passwords restricted to only the authorised members of the research team and department of psychology team handling the data. Electronic data will be protected using secure passwords and restricting the use of group login ids and shared accounts. The data may also be used for future research. The researcher shall have the right to rescind the confidentiality protocol only when a third party in the form of a certified service provider assisting the program or when the legal system may need to be involved. An example of such an exception is when there is a suicidal or homicidal threat.
The results of the study may be published in academic journals or at conference presentations in a manner that does not make participants personally identifiable. Copies of information will be kept at the University of Pretoria's Psychology department for a minimum period of 15 years.

Access to Personal File: As a research participant, i agree that my personal file can be accessed by the researcher for the sole purpose of the research.

Approval
A permission letter to conduct this study has been issued by COSUP through the Department of Family Medicine (University of Pretoria) which is spearheading the COSUP project, alongside other partners such as the City of Tshwane and the Gauteng Departments of Health and Social Development.
This study has been reviewed and given the greenlight by the humanities Faculty research ethics committee of University of Pretoria.

Complaints: Who Should I contact if I have a concern, complaint or anything I should know about the study? If you have questions about this study, or you have experienced adverse effects as a result of participating in this study, you may contact the researcher whose information is provided below. If you have questions regarding the rights as a research participant, or if problems arise which you do not feel you can discuss with the researcher, please contact the supervisor, and contact details are below.
Complaints or concerns arising regarding this study may be directed to:

Supervisor
+27 828898338
maretha.visser@up.ac.za
University of Pretoria
Department of Psychology

Researcher
Names…………………………………………..   Surname…………………………
Date…………………………………………….   Signature…………………………

Participant: I understand this information and agree to participate fully under the conditions given above.

Names…………………………………………….   Surname…………………………..
Date   …………………………………………   Signature…………………………..

32-Item Barriers Questionnaire

PARTICIPANT…………...

Barriers Questionnaire

There are many different reasons why people who use substances do not seek help. Here are some reasons that people give, as to why they do not seek treatment or other kinds of help. Please indicate how much you agree with each of these statements as a reason why you experienced difficulties/challenges in seeking help and treatment.

Instructions
Please tick one answer for each reason.

Section A: Biographical details

Variable		
Gender	Male	1
	Female	2

Section B

Was this an important reason why you experienced difficulties/challenges in seeking help and treatment with regard to your substance use?	Strongly disagree	Disagree	Agree	Strongly agree
1. Healthcare workers mistreat people using substances.	0	1	2	3
2. I was afraid the community would isolate me.	0	1	2	3
3. I feared the shame and embarrassment of being called names.	0	1	2	3
4. I feared losing my identity by being viewed as an outcast.	0	1	2	3
5. We feel not accepted across different places and settings.	0	1	2	3
6. The community looks down upon people using substances.	0	1	2	3
7. People blame us for our condition – they say it is our own fault.	0	1	2	3
8. People using substances are regarded as worthless.	0	1	2	3

9. The police abuse their power by ill-treating people using substances.	0	1	2	3
10. I was afraid of being arrested.	0	1	2	3
11. I didn't know where to go for help.	0	1	2	3
12. I didn't know there is help available for people who use substances.	0	1	2	3
13. Harm reduction is another way of promoting substance use.	0	1	2	3
14. Treatment does not work.	0	1	2	3
15. I didn't think it would do any good.	0	1	2	3
16. Churches provide better services.	0	1	2	3
17. Our families encourage us to seek help from pastors and religious figures.	0	1	2	3
18. Substance use treatment does not help.	0	1	2	3
19. I had no transportation, no way to get there.	0	1	2	3
20. There are inadequate community structures to support people who use drugs.	0	1	2	3
21. The registration and treatment initiation process is tedious (too long and frustrating).	0	1	2	3
22. I didn't like to talk about my personal life with other people.	0	1	2	3
23. My substance use seemed fairly normal to me.	0	1	2	3
24. I didn't think I needed any help.	0	1	2	3
25. I liked using substances and was not prepared to give it up.	0	1	2	3
26. I thought I could handle it on my own.	0	1	2	3
27. Substance use health care sites are too few and not available where I stay.	0	1	2	3
28. There is fragmented service.	0	1	2	3
29. Substance use healthcare sites lack enough healthcare workers	0	1	2	3
30. We do not get moral support from	0	1	2	3

our families.				
31. My friends are all users. They would reject me if I stop using.	0	1	2	3
32. I did not have anyone to assist me if I join the programme	0	1	2	3

Were there any other important reasons why you did not seek help? If so, please write them here:

Appendix G

Original 50-Item Barriers Questionnaire

1. My drug use seemed fairly normal to me.
2. No one told me I had a problem with drugs or encouraged me to seek help.
3. I didn't think I had a serious problem with drugs.
4. I thought I could handle it on my own.
5. I didn't think of myself as an addict.
6. I was concerned about what other people would think of me if I went for help.
7. I was too embarrassed or ashamed.
8. I thought that my family would be embarrassed.
9. I thought my job might be in danger if I went for help.
10. I didn't know where to go for help.
11. I didn't want to be told to stop using drugs.
12. I didn't think it would do any good.
13. I couldn't afford to pay for help.
14. I had no transportation, no way to get there.
15. I needed someone to take care of my children while I was getting help.
16. I didn't have the time.
17. I was afraid I'd be put into a hospital.
18. I didn't think I needed any help.
19. Someone important to me disapproved of my getting help.
20. I hate being asked personal questions.
21. I was afraid that I would fail, or that it wouldn't help me.
22. I thought I was too young to be getting help or treatment.
23. I didn't want somebody telling me what to do with my life.
24. I've had a bad experience with treatment before.
25. Somebody I know had a bad experience with treatment.
26. I was afraid of what might happen in treatment.
27. My drug use wasn't causing any problems as far as I could see.
28. I don't like to talk in groups.
29. I liked drugs and didn't want to give them up.
30. I thought I'd lose my friends if I went for help.
31. I was worried about the bad feelings of going through withdrawal from drugs.
32. I didn't know how I could live without drugs.
33. I thought that going for help might get me in legal trouble.
34. It just seemed like too much trouble to go for help.
35. I liked getting high.
36. I couldn't get time off from work.

37. Using drugs was a way of life for me.

38. Drugs really had not caused much trouble or problems for me.

39. I was afraid of the people I might see.

40. Drugs were not my main problem.

41. I didn't feel safe going where I'd have to go for help.

42. There seemed to be more good than bad about drugs for me.

43. Other people discouraged me from seeking help.

44. I don't like to talk about my personal life with other people.

45. I thought people would make fun of me.

46. I didn't know what would happen to me.

47. I didn't want to go to AA, CA, NA, or other twelve-step groups.

48. I thought that "help" was for people who had worse problems than mine.

49. I had no insurance to pay for it.

50. I thought my troubles would just go away without any help.

Appendix H

Rotated Component Matrix

Rotated Component Matrix[a]

	1	2	3	4	5	6	7	8	9	10
Q3	.768	.173	.122	.113	-.213	-.036	.096	.165	-.079	.038
Q5	.760	.175	.003	.161	.132	-.057	-.021	.037	.130	-.004
Q4	.759	.181	.005	.104	-.081	.141	-.048	.060	.087	-.029
Q2	.716	.157	.084	.039	.195	-.051	.130	.090	.014	-.061
Q1	.484	-.076	.230	-.033	.293	.022	.290	-.009	.138	-.371
Q8	.193	.758	.076	.061	.021	.004	.091	.040	-.038	.112
Q6	.287	.718	-.079	.048	-.030	-.040	-.031	.078	-.128	-.010
Q7	.286	.715	.004	.164	-.111	-.018	-.041	.014	.040	-.134
Q9	-.076	.693	.114	.124	.152	-.159	.007	-.099	.253	.057
Q15	.103	-.024	.709	.038	-.027	.108	.127	-.051	.321	.007
Q18	-.046	.154	.589	.175	-.131	-.008	.022	.394	-.041	-.224
Q14	.000	-.032	.567	-.121	.143	.392	.293	-.091	-.010	-.034
Q16	.108	.092	.545	.272	.263	-.043	.118	.067	.031	-.158
Q17	.200	.082	.532	.141	.469	-.039	-.146	-.003	-.053	.219
Q12	.051	.110	.167	.802	-.019	.108	.040	.126	.032	.027
Q11	.217	.106	.022	.742	.152	-.077	-.046	.084	.197	-.127
Q10	.156	.161	.026	.589	.025	.187	.110	-.122	.144	-.112
Q31	-.035	.063	.025	.021	.766	.311	.097	.103	.002	-.028
Q32	.039	-.049	.121	.118	.756	.089	.224	.143	.076	-.099
Q30	-.086	.009	-.120	.009	.196	.676	.094	.021	.165	-.333
Q29	.013	-.157	.140	.188	.053	.667	.106	.190	.105	.042
Q13	.001	.002	.128	.474	.140	.498	.164	-.107	-.071	.199
Q28	.158	-.238	.404	.059	.333	.496	.135	.114	.060	.056
Q23	.005	.028	.155	.204	.127	.046	.789	.005	.038	-.058
Q25	.066	.060	.057	-.052	.033	.205	.763	.187	-.036	.151
Q24	.246	-.105	.098	.003	.346	.105	.555	.267	.099	.227
Q26	.151	-.028	-.077	.080	.024	.131	.165	.747	-.057	.052
Q22	.154	.007	.087	-.076	.187	-.098	.096	.628	.206	-.204
Q27	.027	.114	.194	.048	.279	.359	.011	.557	-.044	.281
Q19	.134	-.012	.200	.010	.096	.135	.086	.031	.784	.029
Q20	.024	.065	-.011	.313	-.032	.050	-.053	.043	.737	.057
Q21	-.082	.026	-.104	-.110	-.032	-.060	.165	-.017	.105	.693

Note. Each factor is constituted by the shaded items corresponding with the factor.

Appendix I

COREQ Checklist

Domain 1: Research Team and Reflexivity	Description	Location (e.g. chapter number)
Personal characteristics		
1. Interviewer/facilitator Which author(s) conducted the interview or focus group?	T. N. (Author & Principal Researcher)	Methods – 4
	K. S (Research Assistant)	Methods – 4
	N. M (Research Assistant)	Methods – 4
2. Credentials What were the researcher's credentials? (e.g., PhD, MD)	PhD candidate	Title page
3. Occupation What was their occupation at the time of the study?	Full-time PhD candidate	Title page
4. Gender Was the researcher male or female?	Male	–
5. Experience and training What experience or training did the researcher have?	At the time of the interviews, the researcher was in the late stages of completing the PhD and was busy covering the principles of qualitative research in detail.	Title page
Relationship with participants		
6. Relationship established Was a relationship established prior to study commencement?	Yes	Methods – 4
7. Participants' knowledge of the interviewer What did the participants know about the researcher? (e.g., personal goals, reasons for doing the research)	Participants were briefed on the purpose of the study and understood that it was a research project for T. N, PhD studies. Ethical approval had been granted. Participants reviewed the participant information documentation prior to giving their written informed consent to be involved.	Methods – 4

| 8. Interviewer characteristics
What characteristics were reported about the interviewer/facilitator? (e.g., bias, assumptions, reasons and interests in the research topic) | T. N was a PhD candidate researcher in COSUP, with no vested interest in or biases against COSUP, no previous encounter with COSUP or its clients. No interviewer-related biases were identified. | Methods – 4

Discussion – 6 |

Domain 2: Study Design

Theoretical framework

| 9. Methodological orientation and theory
What methodological orientation was stated to underpin the study? (e.g., grounded theory, discourse analysis, ethnography, phenomenology, content analysis) | Open and axial coding with thematic analysis | Methods – 4

Results – 5 |

Participant selection

10. Sampling How were participants selected? (e.g., purposive, convenience, consecutive, snowball)	Peer educators for FGDs were contacted telephonically by COSUP's peer coordinator and invited to participate on a voluntary basis. COSUP clients were telephonically contacted by site stewards at different COSUP sites. Purposive sampling was used for peer educators' recruitment. Simple random sampling was used for COSUP clients.	Methods – 4
11. Method of approach How were participants approached? (e.g., face to face, telephone, mail, email)	Telephone	Methods – 4
12. Sample size How many participants were in the study?	15 for FGDs 15 for SSIs	Methods – 4 Results – 5
13. Non-participation How many people refused to participate or dropped out? Reasons?	Of the 17 potential participants in FGDs, two declined to participate, citing time constraints, resulting in 15 participating. Of the 15 potential participants in SSIs, all of them availed themselves for participation.	Methods – 4 Results – 5

Setting

14. Setting of data collection Where were the data collected? (e.g., home, clinic, workplace)	For FGDs, data were collected at two different COSUP sites, located at a clinic and a hospital. Conference rooms were used. For SSIs, data were collected at COSUP sites where these clients respectively received treatment. Most of these COSUP sites are part of hospital or clinic facilities. Private offices were used for interviews.	Methods – 4
15. Presence of non-participants Was anyone else present besides the participants and researchers?	No	–
16. Description of sample What are the important characteristics of the sample? (e.g., demographic data, date)	FGDs –There were 13 males (86.7%) and two females (13.3%). The mean age for the sample was 33.5 years (SD = 3.9, range = 29-44). SSIs – 15 young adults, aged between 18 and 29 years, participated in individual face-to-face SSIs. The sample was made up of 11 males and four females, which translates to a sample almost similar to that in the quantitative phase (73.3% males and 26.7% females).	Methods – 4 Methods – 5

Data collection

17. Interview guide Were questions, prompts, guides provided by the authors? Was it pilot-tested?	FGDs were semi-structured using a schedule (Table 4.2); follow-up questions and prompts were allowed. For SSIs, an interview guide (Table 4.3) was used; follow-up questions and prompts were allowed.	Methods – 4
18. Repeat interviews Were repeat interviews carried out? If yes, how many?	No	–
19. Audio/visual recording Did the research use audio or visual recording to collect the data?	The FGDs and SSIs were audio-recorded using two recording devices, one of them acting as a back-up device.	Methods – 4
20. Field notes Were field notes made during and/or after the interview or focus group?	FGDs – field notes were made immediately after the interview. SSIs – field notes were made immediately after the interview.	Methods – 4

21. Duration What was the duration of the interviews or focus groups?	FGDs – About one and a half hours for each of the two sessions SSIs – 40–60 minutes per participant	Appendix C Appendix E
22. Data saturation Was data saturation discussed?	Yes	Methods – 4 Discussion – 6
23. Transcripts returned Were transcripts returned to participants for comment and/or correction?	No	

Domain 3: Analysis and Findings

Data analysis

24. Number of data coders How many data coders coded the data?	Three. Data was manually coded.	Methods – 4
25. Description of the coding tree Did authors provide a description of the coding tree?	Open and axial coding. Coding is described in the methods section.	Methods – 4 Figure 13
26. Derivation of themes Were themes identified in advance or derived from the data?	Themes were derived from the data.	Methods – 4 Results – 5
27. Software What software, if applicable, was used to manage the data?	No coding software used. Microsoft Word and Excel were used.	Methods – 4
28. Participant checking Did participants provide feedback on the findings?	Yes, through member checking.	Methods – 4

Reporting

29. Quotations presented Were participants' quotations presented to illustrate the themes / findings? Was each quotation identified? (e.g., participant number)	Yes, specific comments were supported with direct quotes attributed to anonymised participants.	Results – 5
30. Data and findings consistent Was there consistency between the data presented and the findings?	Yes	Results – 5 Discussion – 6

| 31. Clarity of major themes
Were major themes clearly
presented in the findings? | Yes | Results – 5

Discussion – 6 |
| 32. Clarity of minor themes | Presented as sub-themes | Results – 5 |

Appendix J

Editor's Declaration

F. M. WEISS

Translation and editing
MA (Applied Linguistics and Literary Science)
(cum laude)

Cell: 084 519 9032
Email: rikaweiss@telkomsa.net

28 January 2023

DECLARATION OF PROFESSIONAL EDIT

This is to confirm that I edited the doctoral thesis titled **Barriers to Treatment Among Young Adults Living with a Substance Use Disorder: Findings From Working with the Community-Oriented Substance Use Programme in Tshwane, South Africa** by **Tichaenzana Nyashanu**, submitted in fulfilment of the requirements for the degree PhD (Psychology) in the Department of Psychology, Faculty of Humanities, University of Pretoria.

My involvement as an editor was restricted to checking language usage, spelling, consistency, completeness, referencing style and basic formatting. The editing was done using track changes and comments, and the onus was on the student to attend to the suggested changes. Therefore, responsibility for the final document rests with the student.

Yours faithfully

F.M. Weiss

F. M. Weiss

28 January 2023