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Occupational Therapy Interventions for Substance-Related Disorders in the Public Primary Health Care Sector in the City of Johannesburg

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DECLARATION

I, Kirsty Wilson, student number 223152371, declare that,

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"The inextricable links between mental health and public health, human rights and socioeconomic development mean that transforming policy and practice in mental health can deliver real, substantive benefits for individuals, communities and countries everywhere. Investment into mental health is an investment into a better life and future for all."

~ Dr Tedros Adhanom Ghebreyesus, WHO Director-General ~

(WHO, 2022)

ABSTRACT

Introduction: Substance-related disorders pose significant intersecting health and social challenges in South Africa. The 2023 Prevention of and Treatment for Substance Use Disorders Policy emphasises involving service users in intervention planning, integrating support groups, and incorporating vocational rehabilitation. However, occupational therapy interventions for substance-related disorders in primary health care settings remain unclear.

Methods: An exploratory qualitative study investigated substance-related disorder interventions provided by occupational therapists in the City of Johannesburg's public primary health care facilities. Purposive heterogeneous sampling was used to select eighteen participants consisting of occupational therapists (n=8), multidisciplinary team members (n=6) and service users (n=4). Semi-structured interviews were audio-recorded, written, transcribed verbatim and thematically analysed.

Results: Six themes emerged: (1) Individualised approaches to substance-related disorder interventions, (2) Campaigns and screenings, (3) Barriers to service delivery, (4) Socioeconomic and contextual influences on substance use, (5) Service users' experiences with occupational therapy, and (6) Proposed solutions for improved substance-related disorder interventions.

Conclusion: Despite challenges in South African public health services—such as underfunding, resource limitations, and staff shortages—occupational therapists in primary health care settings provide numerous occupation-based interventions for substance-related disorders. These interventions address occupational performance in individual and group settings, with gardening groups being the most common form of group intervention.

Implications for practice: The findings suggest that occupational therapy interventions for substance-related disorders primarily focus on leisure, education, work, psychoeducation, coping skills development, and referrals to learnerships. However, health promotion and substance-related disorder prevention are often underemphasised, with the primary focus remaining on addressing physical ailments. The findings align with the *2008 Prevention of and Treatment for Substance Abuse Act*, which suggests that occupational therapists, as mental health practitioners, should focus on increasing awareness, prioritising substance abuse campaigns and screenings, and fostering collaboration within multidisciplinary teams.

Key words: substance abuse; occupational therapists; public health care; community-based intervention

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ABBREVIATIONS AND ACRONYMS

ADL	Activity of daily living
AOTA	American Occupational Therapy Association
APA	American Psychiatric Association
CBR	Community-based rehabilitation
CDA	Central Drug Authority
CDC	Centres for Disease Control and Prevention
CHC	Community health centre
CHWs	Community health workers
COVID-19	Coronavirus Disease of 2019
DoH	Department of Health
DSD	Department of Social Development
DSM-5	Diagnostic and Statistical Manual of Mental Disorders, 5th edition
DUD	Drug use disorder
FASD	Fetal alcohol spectrum disorder
IADL	Instrumental activity of daily living
MHCU	Mental health care user
MMSE	Mini-Mental State Examination
MoCA	Montreal Cognitive Assessment
NDMP	National Drug Master Plan
NGO	Non-Governmental Organisation
OPA	Occupational performance area

OTPF	Occupational Therapy Practice Framework
OTT	Occupational therapy technician
PHC	Primary health care
SACENDU	South African Community Epidemiology Network on Drug Use
SAMHSA	Substance Abuse and Mental Health Services Administration
SID	Substance-induced disorder
SIPD	Substance-induced psychotic disorder
SLUMS	Saint Louis University Mental Status
SRD	Substance-related disorder
SUD	Substance-use disorder
UNICEF	United Nations International Children's Emergency Fund
UNODC	United Nations Office on Drugs and Crime
WBOTs	Ward-based outreach teams
WFOT	World Federation of Occupational Therapists
WHO	World Health Organisation

OPERATIONAL DEFINITIONS

Aftercare services: Refers to the "ongoing professional support to a service user after a formal treatment episode has ended in order to enable him or her to maintain sobriety or abstinence, personal growth and to enhance self-reliance and proper social functioning" (*Prevention of and Treatment for Substance Abuse Act 2008*, p. 8).

Campaign: Additional initiatives aimed at achieving high population coverage (UNICEF, 2020).

Clinic: A facility at and from which a number of primary health care services are provided but no overnight care services (KZN DoH, 2001).

Community-based services: Are "provided to persons who abuse or are dependent on substances and to persons affected by substance abuse while remaining within their families and communities" (*Prevention of and Treatment for Substance Abuse Act 2008*, p. 8).

Community health centre (CHC): A facility that provides PHC services, as well as 24-hour maternity, accident and emergency services (KZN DoH, 2001).

Dual diagnosis: The co-occurrence of a mental illness and a substance-related disorder, where the misuse of the substances affects the primary mental illness and the person's prognosis (Nepaul, 2017).

Health promotion: Activities or efforts "aimed at promoting and enabling people to take control of their health and developing skills to practice healthy behaviours like physical activity and prevent unhealthy behaviours (e.g. smoking, illicit drug use or excessive alcohol use)" (DoH, 2015a, p. III).

Interventions: Refers to the "process and skilled actions taken by occupational therapy practitioners in collaboration with the client to facilitate engagement in occupation related to health and participation. The intervention process includes the plan, implementation, and review" (AOTA, 2015c, as cited in AOTA, 2020, p. 78). For this study, interventions refer to all assessment and treatment methods conducted by occupational therapists for substance-related disorders.

Leisure: Refers to voluntary activities driven by intrinsic motivation, typically engaged in during free time (AOTA, 2020).

Occupations: Activities that people engage in daily to occupy their time and provide meaning and purpose to their lives (WFOT, 2023). Some refer to occupations as occupational performance areas (OPAs).

Occupational deprivation: Occurs when individuals or groups are unable to do what they need or want to do due to external restrictions (Whiteford, 2000).

Occupational performance: Is the ability to perceive, desire, recall, plan and execute roles, routines and tasks to maintain oneself, be productive, engage in leisure, and rest in response to internal and/or external demands (Ranka and Chapparo, 1997). In other words, it involves performing specific actions (performance skill), activities, or occupations (AOTA, 2020).

Occupational therapist: A health practitioner that is client-centred and promotes health and well-being through occupation. The aim is to enable individuals and communities to participate in occupations they want to, need to, and are expected to do (WFOT, 2012).

Primary health care (PHC): It is an inclusive level of care that "addresses the main health problems in the community of providing promotive, preventative, curative and rehabilitative services" (DoH, 2017, p. vi). It focuses on "health equity, including all areas that play a role in health, such as access to health services, environment and healthy lifestyles" (DoH, 2015a, p. iii).

Polysubstance user: An individual who uses more than one substance at a time, either simultaneously or within a short time period of each other (CDC, 2022).

Poverty cycle: A persisting cycle when families consistently lack the resources to meet their most basic needs, often perpetuating across generations (Outreach International, 2023).

Multidisciplinary Team (MDT): A "team of professionals who render medical and psycho-social substance abuse-related services, which include the following: social workers, professional nurses, medical doctor, occupational therapists, psychologists, child and youth care workers" (DSD, 2023, p. 14).

Service user: Refers to "any person who receives prevention of and treatment for drug use and abuse related services (which include prevention, early intervention, treatment, rehabilitation, reintegration and aftercare)" (DSD, 2023, p. 15). For this study, service users

refers to individuals who are receiving intervention for their substance-related disorders (SRDs) from occupational therapists in the public primary health care sector.

Substance: Refers to "chemical, psychoactive substances that are prone to be misused, including tobacco, alcohol, over the counter drugs, prescription drugs and substances defined in Drugs and Drug Trafficking Act, 1992 (Act No. 140 of 1992)" (DSD, 2019, p. 9*).*

Substance-induced disorder (SID): Is classified for conditions such as "intoxication, withdrawal, and other substance/medication-induced mental disorders (psychotic disorders, bipolar and related disorders, depressive disorders, anxiety disorders, obsessive-compulsive and related disorders, sleep disorders, sexual dysfunctions, delirium, and neurocognitive disorders)" (APA, 2013, p. 481).

Substance-related disorders (SRD): Encompass both substance use disorders (SUDs) and substance-induced disorders (SIDs). These disorders involve 10 classes of drugs that, when used excessively, can lead to intense activation of the brain's reward system and subsequent neglect of daily activities (APA, 2013).

Substance-use disorder (SUD): Is diagnosed when an individual persistently uses a substance despite negative impacts on their daily life, such as failing to meet work responsibilities and experiencing difficulties in maintaining social relationships (APA, 2013).

Treatment: Is "the provision of specialised social, psychological and medical services to service users and to persons affected by substance abuse with a view to addressing the social and health consequences associated therewith" (*Prevention of and Treatment for Substance Abuse Act 2008*, p .12).

Vocational rehabilitation: The *Framework and Strategy for Disability and Rehabilitation Services in South Africa (2015-2020)* defines this as "programmes designed to restore or develop the capabilities of people with disabilities to secure, retain and advance in suitable employment, e.g. job training, job counselling and job placement services" (DoH, 2015a, p. 24).

CHAPTER ONE:
INTRODUCTION

1.1 Introduction and problem statement

The use and abuse of substances pose significant health and social challenges worldwide, with an alarming rise in substance use, particularly among the youth (Crouch and Wegner, 2014; Bell *et al*., 2015; UNODC, 2018; Price, 2024). In 2021, approximately 39.5 million people globally had a drug use disorder (DUD), and an additional 13.5 million individuals aged 15 to 16 were using cannabis (United Nations Office on Drugs and Crime [UNODC], 2023). The World Health Organisation (WHO) (2021) reports 3.3 million people die each year due to alcohol and South Africa has been identified as having one of riskiest patterns of alcohol consumption globally and the highest level of intake in Africa (WHO, 2018, as cited in Department of Social Development [DSD], 2023). However, treatment services are limited in South Africa, compounded by two-tier healthcare systems, i.e. the public and private healthcare systems, which differ significantly. Despite the underfunded public sector facing severe resource and staff shortages (Mpanza, 2014; Maphumulo and Bhengu, 2019; DSD, 2023), patient visits in primary health care (PHC) settings in South Africa continue to rise, with a 6% increase in 2022/23 compared to 2021/22 (Gauteng Department of Health [DoH], 2023). Furthermore, the prevalence of substance-related disorders (SRDs) in Africa is expected to increase by 40% from 2018 levels by 2030 (UNODC, 2021). Given the current strain on South Africa's healthcare system, this projected rise in SRD prevalence could further exacerbate existing pressures, highlighting the urgent need for effective prevention and management strategies. Therefore, it is necessary to explore occupational therapy services for SRDs within PHC settings.

Occupational therapists play a crucial role in providing SRD interventions in PHC settings (*Prevention of and Treatment for Substance Abuse Act,* 2008; Crouch and Wegner, 2014; DoH, 2015a). However, it has been indicated that occupational therapists in PHC settings predominantly focus on rehabilitative interventions, with less focus on health promotion and disease prevention (Naidoo, Van Wyk and Joubert, 2016). In the City of Johannesburg district, occupational therapists began offering mental health services in PHC settings only

in July 2021, after the Life Esidimeni[1] tragedy occurred in Gauteng in 2016 (Robertson *et al*., 2021). Prior to this, their focus was predominantly on rehabilitative interventions, which initially prompted their expansion into PHC as part of the National Health Insurance (NHI) system, with the aim of strengthening PHC services (DoH, 2015b). Despite the identified need for occupational therapy interventions for SRDs, the number of occupational therapists in the public sector is very limited in South Africa. A study reviewing the Health Professions Council of South Africa (HPCSA) database from 2002 to 2018 revealed that "74.8% of occupational therapists are deployed in the private sector catering for 16% of the population while approximately 25.2% are employed in the public sector catering for 84% of the population" (Ned *et al*., 2020, p. 1). Although the *Prevention of and Treatment for Substance Abuse Act of 2008* recognises occupational therapists as mental health practitioners, occupational therapy services remain not well established in the public health sector, particularly in PHC settings.

The DoH (2015a, p. 8) further reports that the "ideal core rehabilitation team usually does not exist," with many clinics and community health centres (CHCs) lacking occupational therapists altogether. Despite the *White Paper on National Health Insurance* advocating for increased utilisation of occupational therapists in PHC settings (DoH, 2015a), some clinics and CHCs have had to rely on outreach services from occupational therapists in other facilities to bridge this gap (WHO, 2020). In the City of Johannesburg, the clinics and CHCs that have occupational therapists employed, as well as those who receive occupational therapy through outreach services include; Alexandra CHC, Chiawelo CHC, Discoverers CHC, Hillbrow CHC, Lenasia Clinic, Finetown Clinic, Mofolo CHC, Stretford CHC, and Zola CHC (the researcher received this information from the Johannesburg District Research Council [DRC] in August 2023). Therefore, at these specific clinics and CHCs, it is unclear what specific interventions occupational therapists are conducting for SRDs. The researcher agrees that South African occupational therapists need to "gain a deeper understanding of what is happening at a ground level, especially in rural areas" (Mpanza, 2014, p. 5).

[1] Life Esidimeni is the mental health tragedy which took place in Gauteng in 2016. The Gauteng DoH hurriedly relocated 1711 mental health care users (MHCUs) from a private facility to various non-governmental organisation (NGO) facilities, resulting in negligence and the tragic deaths of 144 MHCUs (Durojaye and Agaba, 2018).

The problem is that existing South African literature on occupational therapy interventions for SRDs is limited, and international literature may not always be relatable or relevant given South Africa's unique context. There has been research conducted in KwaZulu-Natal regarding occupational therapy in PHC settings (Mpanza, 2014; Mpanza and Govender, 2017, 2022; Naidoo *et al*., 2017; Naidoo and Van Wyk, 2023). However, no literature was found on occupational therapy interventions for SRDs in the public PHC sector in the City of Johannesburg district. Furthermore, based on the researcher's prior experience as an occupational therapist in a public tertiary hospital in the Gauteng province, it was observed that a significant number of individuals admitted to public psychiatric wards were using and abusing various substances. This prompted the researcher to question what "groundwork" is being done by occupational therapists for SRD interventions at the PHC level. Thus, this study sought to explore occupational therapy interventions for SRDs within the public PHC sector in the City of Johannesburg district.

1.2 Context of study

Both the *National Drug Master Plan (NDMP) (2019-2024)* and the *Prevention of and Treatment for Substance Use Disorders Policy (2023)* define substance abuse as the excessive use of a substance without medical justification, despite its adverse effects (DSD, 2019, 2023). Additionally, the *NDMP (2019-2024)* defines addiction as "a chronic, relapsing disease that affects both the brain and behaviour" (DSD, 2019, p. 5), however, the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) does not use the term 'addiction' due to its potentially negative connotations (American Psychiatric Association [APA], 2013, 2022). Various terms are used in society to describe substance-related issues, such as drug abuse, alcohol abuse, and drug dependency. For the purpose of this study, the term substance-related disorders (SRDs) is preferred. However, the term 'substance abuse' is also employed in this thesis, as it was occasionally used by service users who participated in the study.

The *NDMP (2019-2024)* states that 'nyaope'[2] is one of the frequently used substances in South Africa and can be defined as "a street mixture of drugs with the most common substances including heroin and cannabis" (DSD, 2019, p. 8). The South African Community Epidemiology Network on Drug Use (SACENDU) identified that there was an increase in the abuse of methamphetamine in Gauteng specifically and noted it as an issue that needs monitoring (SACENDU, 2023). However, cannabis remains the world's most

[2] Street names for nyaope include 'whoonga' and 'unga'

widely used substance (UNODC, 2024) and the *Prevention of and Treatment for Substance Use Disorders Policy (2023)* states that 50% of service users who attend treatment centres in Gauteng identify with its use as their primary or secondary drug (DSD, 2023). In addition, 46% of service users who attend treatment centres in Gauteng are found to be polysubstance users (Mohale and Mokwena, 2020; SACENDU, 2024). However, there is insufficient data on substance abuse in South Africa and across Africa, indicating that the reported statistics could be significantly higher (Givetash, 2022; UNODC, 2023). The COVID-19 pandemic significantly impacted overall mental health, contributing to increased levels of anxiety, depression, and substance misuse (WHO, 2022). The pandemic also led to an increase in admissions to psychiatric wards for substance-induced psychotic disorders (SIPDs) in Gauteng (Uys *et al*., 2021). In addition, the acting programme manager of Ikageng Children's Charity in Soweto stated that during the National Lockdown, many young individuals in Soweto engaged in house parties and began experimenting with alcohol, initiating their substance abuse (Givetash, 2022). She also noted that it resulted in youth, particularly school-going children, experimenting with crystal meth, a substance that is prevalent not only in Soweto, South Africa, but also globally (Givetash, 2022).

Furthermore, substance use is deeply ingrained in South African 'culture', shaped by the country's long and complex social, cultural and political history of alcohol consumption (Olivier *et al*., 2016). In many cultures around the world, substances are often normalized from a young age contributing to substantial morbidity and mortality (APA, 2013). Although cannabis use disorder (CUD) can present at any time during a person's life, it frequently starts during adolescence or young adulthood (APA, 2013). Individuals with CUD frequently experience concurrent mental disorders, and chronic substance use may aggravate these conditions (e.g. schizophrenia) (APA, 2013). This places major demand on South Africa's mental health care services, a situation that may worsen with the recent legalisation of cannabis use in private spaces (Mokwena, 2019).

Moreover, the *World Drug Report* (UNODC, 2024) provides evidence that only 2.8% of individuals with DUDs in Africa received treatment in 2022, and almost 10% of those individuals did not complete primary school. Individuals undergoing treatment for SRDs often have lower levels of education compared to the general population, posing challenges for their recovery and community reintegration (UNODC, 2024). Additionally, although the world has a significant problem regarding SRDs, majority (80-90%) of individuals who receive treatment relapse within their first year of recovery (Cruz, 2019). Wasmuth, Pritchard and Kaneshiro (2016) conducted a systematic review on occupation-based interventions for addictive disorders and found that integrating these interventions into the

rehabilitation process can reduce high relapse rates and enhance rehabilitation experiences. It has also been previously suggested that occupational therapists be involved in legislative decisions concerning SRDs and participate in interventions within PHC settings (Crouch and Wegner, 2014). Currently, occupational therapists are indeed involved in such interventions, within PHC settings. According to the Occupational Therapy Association of South Africa (OTASA) (2015, p. 58), these therapists effectively contribute to PHC settings by promoting health, conducting screenings, providing early intervention, and focusing on prevention, with the ultimate goal of reducing "the incidence and impact of serious disability and morbidity."

In addition, the DoH (2018) developed the *Policy Framework and Strategy for Ward-based Primary Healthcare Outreach Teams (WBPHCOTs)*, building upon the 2011 *Guidelines on the Implementation of the Three Streams of Primary Health Care Re-engineering*. The aim of this *Policy Framework and Strategy for WBPHCOTs* was to offer guidance for improving the implementation of community-based health workers, with the goal of bridging the gap between communities and PHC facilities (DoH, 2018). These community health workers (CHWs) conduct household profiling, screening, and health education, contributing to community and home-based care (Moosa *et al*., 2017). However, despite these previous efforts to increase PHC services, the *Prevention of and Treatment for Substance Use Disorders Policy (2023)* indicates that community-based prevention and treatment for SRDs remain extremely limited (DSD, 2023). This limitation is particularly concerning given that 31% of South Africa's population resides in rural areas (World Bank, 2023).

Moreover, the *National Health Promotion Policy and Strategy (2015-2019)* identifies with the PHC definition of 'Health for All' as first described at the Alma-Ata Declaration of 1978 conference (DoH, 2015a). The South African DoH (2015a, p. iii) notes that the PHC approach focuses on "health equity, including all areas that play a role in health, such as access to health services, environment and healthy lifestyles." It is an inclusive level of care that focuses on health promotion, disease prevention, treatment, rehabilitation, and palliative care. The Gauteng DoH convened task teams to address community mental health interventions, after the 2016 Life Esidimeni tragedy (Robertson *et al*., 2021). The new mental health directorate included divisions for clinical community psychiatric teams and NGO governance and compliance (Robertson *et al*., 2021). The restructuring resulted in a number of vacancies for 'mental health occupational therapists' in rural communities within Gauteng, which became available in July 2021. However, prior to this study (November 2023), the researcher learned from a source—an occupational therapist working in a clinic in the district—that occupational therapists in clinics or CHCs within the

City of Johannesburg district became recognised under a different directorate. This change occurred due to the integration of mental health and physical rehabilitation occupational therapists in April/May 2023. Thus, there were no longer designated 'mental health occupational therapists' within the district. Although the integration aimed to merge the two roles, the success across clinics and CHCs remained unclear.

Furthermore, not having any mental health occupational therapists specifically in the clinics and CHCs in the district raised concerns about whether mental health interventions, particularly for SRDs, might be neglected. This would be problematic as many South Africans live in disadvantaged areas that lack resources, and face struggles of poverty, violence and crime, which exasperates substance misuse (Crouch and Wegner, 2014). Although individuals around the world choose to use substances for various reasons, there are certain individuals who are at higher risk of substance misuse. For example, individuals with a family history of substance use are more likely to use substances, a phenomenon known as genetic predisposition to substance use (Substance Abuse and Mental Health Services Administration [SAMHSA], 2019; Centres for Disease Control and Prevention [CDC], 2022). Another predisposing factor of substance use is being maltreated as a child and not having adequate supervision (SAMHSA, 2019). Furthermore, individuals may start using substances because of environmental factors and upbringing (e.g. drinking behaviour might be modelled to children by their parents). Moreover, cannabis is often consumed for recreational purposes, but individuals may also use it as a coping mechanism for problems relating to mood, sleep or pain. It is often described as a gateway drug and, in some instances, a reverse gateway drug (Badiani *et al*., 2015). Individuals may also turn to substances for pain management because globally around 86% of individuals have inadequate access to pain medication (UNODC, 2023). Thus, for many individuals, substance use may serve as an escape from life stressors or act as a coping mechanism for challenges such as poverty (Kalichman *et al*., 2006).

This study was therefore inspired by the high prevalence of SRDs in South Africa, the uncertainty surrounding the implementation of SRD interventions by occupational therapists in public PHC settings within the City of Johannesburg district, the specific interventions being employed, and the unique context of South Africa's PHC environments.

1.3 Research question

What interventions do occupational therapists provide in the public primary health care sector in the City of Johannesburg district for substance-related disorders?

1.4 Aim

To explore interventions for substance-related disorders provided by occupational therapists, from the perspectives of occupational therapists, multidisciplinary team members and service users, within the public primary health care sector in the City of Johannesburg district.

1.5 Objectives

1. To explore the intervention programmes used by occupational therapists in the City of Johannesburg district in the public primary health care sector when treating substance-related disorders from the perspectives of occupational therapists.
2. To explore the intervention programmes used by occupational therapists in the City of Johannesburg district in the public primary health care sector when treating substance-related disorders from the perspectives of service users.
3. To describe the experiences of service users who receive intervention for substance-related disorders by occupational therapists in the public primary health care sector in the City of Johannesburg district in Gauteng.
4. To provide recommendations by service users and Department of Health key stakeholders' for possible strategies for occupational therapy substance-related disorder interventions in the City of Johannesburg district in the public primary health care sector.

1.6 Literature review

1.6.1 Introduction

The first section of this review provides an overview of various terminology regarding SRDs. The second includes the impacts of SRDs on individuals' lives, illustrating how substance misuse affects occupational functioning. The third examines multisectoral approaches to SRD interventions, with a particular focus on South African policy perspectives. Finally, the review presents literature on occupational therapy interventions for individuals experiencing SRDs.

1.6.2 Overview of substance-related disorders

SRDs envelop 10 classes of drugs (alcohol; caffeine; cannabis; hallucinogens; inhalants; opioids; sedatives, hypnotics, and anxiolytics; stimulants; tobacco; and other [or unknown] substances), which may produce intense activation of the brain reward system, if taken in

excess, leading to neglect of daily activities (APA, 2013). The DSM-5 divides substance-related disorders (SRDs) into two groups, namely substance use disorders (SUDs) and substance-induced disorders (SIDs) (APA, 2013). A SUD is diagnosed when an individual persistently uses a substance despite negative impacts on their daily life, such as failing to meet work responsibilities and experiencing difficulties in maintaining social relationships (APA, 2013). A SID may be classified for various conditions, namely; "intoxication, withdrawal, and other substance/medication-induced mental disorders (psychotic disorders, bipolar and related disorders, depressive disorders, anxiety disorders, obsessive-compulsive and related disorders, sleep disorders, sexual dysfunctions, delirium, and neurocognitive disorders)" (APA, 2013, p. 481). It is important to recognise that SRDs are mental health disorders that impact individuals across all socioeconomic classes, not only those facing poverty, despite the interplay between unemployment and SRDs (Crouch and Wegner, 2014).

1.6.3 Effects of substance-related disorders

The misuse of substances can cause issues for not only individuals, but for their families and communities (WHO, 2019). It can cause harm on an individual's overall well-being, safety and health (UNODC, 2023), and can also negatively impact communities in terms of health, economy, productivity, and social aspects (Degenhardt *et al*., 2018). Globally, Africa bears the heaviest burden of disease and injury attributed to alcohol (WHO, 2018). Alcohol alone places an immense burden on South Africa's economy and public healthcare system. The *Prevention of and Treatment for Substance Use Disorders Policy (2023)* states that only a third of adults in South Africa drink alcohol, but many engage in 'binge' drinking, which is very destructive to communities and contributes to mental illness (DSD, 2023). The WHO (2022) provides evidence that approximately one-third of individuals with a SRD also experience mental health conditions. Likewise, individuals with a mental health condition are at increased risk of developing a SRD (WHO, 2022), which worsens overall health outcomes (WHO, 2024).

Additionally, when comorbidity is present, SRDs often remain undiagnosed as the comorbid condition (e.g. schizophrenia) receives more attention, resulting in SRDs being overlooked or considered secondary to other illnesses rather than as primary mental disorders (Crouch and Wegner, 2014). This issue is still relevant, as highlighted by the *Prevention of and Treatment for Substance Use Disorders Policy (2023),* which notes that inadequate assessment by health practitioners frequently leads to misdiagnosis and inappropriate treatment of SRDs (DSD, 2023). This concern was underscored in a study conducted in an acute psychiatric ward at Helen Joseph Hospital, a tertiary facility in the City of

Johannesburg district (Anic and Robertson, 2020). Among the 150 study participants, 100 had a SRD, whereas 23 reported SRD symptoms on a questionnaire but had not received a formal diagnosis (Anic and Robertson, 2020). Out of the 100 with diagnosed SRDs, only two were referred for inpatient rehabilitation upon discharge (Anic and Robertson, 2020).

In addition to comorbid mental health conditions, the *NDMP (2019-2024)* points out that substance use and abuse can negatively impact cognitive development, elicit violent behaviours, accidents, injuries, sexual risks and increase the risk for being a victim of abuse, particularly for the youth of South Africa (DSD, 2019). Intimate violence is also frequented among individuals with SRDs (Kaswa, 2021). According to the *Prevention of and Treatment for Substance Use Disorders Policy (2023)*, 65% of women who experience partner abuse report that the perpetrator almost always consumes alcohol before the assault (DSD, 2023). Moreover, due to ongoing brain development during adolescence, cannabis use can lead to long-term negative effects and increase the risk of substance dependence in adulthood (UNODC, 2023). The *NDMP (2019-2024)* reports that young people who misuse substances also tend to struggle academically at school, with a 60% higher chance of repeating grades (DSD , 2019). Other common challenges linked to SRDs include lowered emotional insight, difficulties concentrating, memory problems, poor decision-making and problem-solving, diminished self-esteem, anxiety, aggression, and a tendency to tell lies (Crouch and Wegner, 2014; Williams, 2020). Individuals who use and abuse substances also engage less in occupational activities, and tend to withdraw from hobbies and family gatherings (Crouch and Wegner, 2014). In addition, they often experience sleep disturbances (Tang *et al*., 2015), which can contribute to additional psychiatric complications. Furthermore, they typically experience difficulties meeting their major life roles and present with poor academic or work performance (Crouch and Wegner, 2014). Based on observations at a public hospital in Gauteng, Nepaul (2017) noted that MHCUs admitted with substance-induced-psychosis were often unemployed, or never worked in a formal job, or they were fired from their job due to their substance abuse. The researcher identifies with this experience as in 2022, the researcher also worked in a public hospital in Gauteng, and found that many MHCUs with SRDs were unemployed too. While this can be due to their substance misuse, it is important to consider the broader context of scarce job opportunities in South Africa.

1.6.4 Multisectoral approaches to managing substance-related disorders

The *NDMP (2019-2024)* reports that historically, many countries have focused on punishment for treating SRDs, which have proven minimally effective in reducing substance use (DSD, 2019). The shift from a criminal justice approach to a public health perspective

acknowledges SRDs as mental disorders and recognises the internal struggle individuals experience between the desire to quit and the compulsion to continue using substances (DSD, 2019). Successful treatments for SRDs exist and are proposed (WHO, 2022), but globally, the availability of treatment services are often of poor quality and accessibility to facilities is unequal (UNODC, 2023; WHO, 2024). The UNODC (2024) emphasises the urgent need for quality improvements in SRD interventions worldwide. In South Africa, approximately 75% of individuals with mental health conditions, including depression, anxiety, or problematic substance use, do not receive treatment (Sorsdahl *et al*., 2023). Additionally, according to the Department of Statistics in South Africa, the Sustainable Development Goal (SDG) 3: *'Ensure healthy lives and promote well-being for all at all ages',* which also addresses mental health and substance abuse (SDG 3.5 '*Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol*'), has "been one of the SDG's 'hardest-hit' by the COVID-19 Pandemic" (Stats SA, 2023, p. 43). Moreover, the latest *Sustainable Development Goals: Country Report (2023)*, note that there is "no data available for the target" (Stats SA, 2023, p. 43). Therefore, it remains uncertain whether South Africa's SRD interventions are progressing as planned towards the 2030 goals. Nevertheless, South Africa demonstrates a strong commitment to SRD interventions through well-structured policies.

In South Africa, the DSD leads efforts to combat substance abuse, with the Central Drug Authority (CDA) operating as a statutory body under its administration. Established under the *Prevention for and Treatment of Substance Abuse Act 2008 (Act No.70 of 2008),* the CDA is tasked with planning, coordinating, overseeing, monitoring and evaluating the implementation of the *NDMP (2019-2024)* (DSD, 2019, 2024). The *NDMP (2019-2024)* specifies the responsibilities of each department in addressing substance use and abuse (DSD, 2019). Prior to the *NDMP 2019-2024,* the *NDMP 2013-2017* was drafted in alignment with the specifications in the *Prevention of and Treatment for Substance Abuse Act (No 70 of 2008)*. After the evaluation of the *NDMP 2013-2017*, the need for improvement was identified, leading to the development of the revised *NDMP 2019-2024* (DSD, 2019). The *NDMP (2019-2024)* has a vision to make South Africa free of substance abuse, with the aim to adopt a multisectoral approach to create a South Africa devoid of the harms associated with drug use, misuse, and abuse (DSD, 2019). The Plan suggests there are three levels of SRD prevention. Firstly, primary prevention aims to alter both the individual and their environment to lower the initial risk of substance use and abuse. Secondly, secondary prevention involves the early detection of individuals at risk of substance abuse and taking action to prevent its progression. Thirdly, tertiary prevention focuses on treating the individual who has developed substance dependence (DSD, 2019). Furthermore, the

Prevention of and Treatment for Substance Use Disorders Policy (2023) is founded on three core pillars: demand reduction, supply reduction and harm reduction (DSD, 2023).

The DSD is responsible for providing prevention and treatment strategies for individuals with SRDs, as well as coordinating all relatable services (DSD, 2019). It is the lead department and therefore has a mandate to collaborate with all other departments to ensure effective service delivery for SRDs (DSD, 2023). Both the *NDMP (2019-2023)* and the *Prevention of and Treatment for Substance Use Disorders Policy (2023)* state that SRD interventions require a multisectoral approach (DSD, 2019, 2023). The Department of Correctional Services is required to manage substance use in prisons by preventing substances from entering the facilities in the first place (DSD, 2019, 2023). The Department of Employment and Labour is tasked with addressing unemployment—especially among individuals with substance use issues—by monitoring and evaluating workplace substance abuse policies and providing skills development programmes in collaboration with other stakeholders (DSD, 2019, 2023). The Department of Basic Education is responsible for implementing policies and strategies to combat substance use in schools (DSD, 2023).

Furthermore, the *Health Sector Drug Master Plan (2019-2025)* is responsible for reducing substance abuse progression by implementing "screening, brief intervention and referral to treatment (SBIRT) in all levels of healthcare" (DoH, 2019, p. 14). The *Prevention of and Treatment for Substance Use Disorders Policy (2023)* suggests that early interventions for SRDs should start in PHC settings as community-based services (DSD, 2023). The Policy suggests that aftercare services for individuals with SRDs should be community-based and include counselling, skills development and support services (DSD, 2023). The Department of Sports, Arts and Culture is responsible for providing opportunities to engage in healthy leisure activities in communities (DSD, 2019), by utilising constructive activities such as sport, art activities and cultural activities (DSD, 2023). Also, the South African Institute for Drug Free Sports (SAIDS) is mandated to promote substance-free sport, as well as to provide educational programmes in communities regarding the dangers of using substances to enhance performance (DSD, 2019). Furthermore, NGO's also have a responsibility to the management of SRDs (WHO, 2024).

However, despite the guidelines stipulated in these policies, South Africa still has the highest prevalence of Fetal Alcohol Spectrum Disorder (FASD) worldwide (Lange *et al*., 2017, as cited in DSD, 2023; Popova, *et al*., 2023). In addition, the *NDMP (2019-2024)* indicates that 58% of road fatalities in the country are attributable to alcohol consumption (DSD, 2019). Therefore, although South Africa's policies and legislation appear robust in theory, their practical effectiveness in addressing these issues remains questionable.

1.6.5 Occupational therapy interventions

According to the *Prevention of and Treatment for Substance Use Disorders Policy (2023)*, SRD interventions primarily focus on the treatment of substance abuse, with less emphasis on prevention, early intervention, and even less on reintegration and aftercare services (DSD, 2023). Occupational therapists are part of the multidisciplinary (MDT) team that provides these interventions at all levels of health care, including public PHC facilities such as clinics and CHCs. However, MDT members often struggle to differentiate occupational therapy roles from those of physiotherapists or other therapists (Naidoo, Van Wyk and Joubert, 2016). This confusion may arise because occupational therapists have traditionally been known for rehabilitation intervention in PHC, rather than mental health. Additionally, occupational therapists are an underutilised resource, especially in the realm of SRD interventions (Rothman and Jimenez, 2023). In South Africa, the public sector has an estimated 1.53 occupational therapists per 100 000 people (Sorsdahl *et al*., 2023). This severe shortage challenges the DSD's goal of employing full-time therapeutic staff in schools (DSD, 2023), as it is not yet feasible. Furthermore, the shortage of occupational therapy staff in the public sector results in some clinics and CHCs being without full-time occupational therapists. Consequently, these facilities are compelled to recruit occupational therapists from other clinics or CHCs on a part-time basis, typically once or twice a week, to ensure that service users, and patients in general, receive occupational therapy interventions. This shortage results in inadequate access to occupational therapy services, leading to healthcare service deprivation for service users and contributing to the revolving door phenomenon in the mental health system, due to insufficient holistic interventions for SRDs.

The Occupational Therapy Practice Framework (OTPF) defined the role of occupational therapists as utilising their understanding of the transactional relationship between the client, their engagement in meaningful occupations, and their context to design occupation-based intervention plans (American Occupational Therapy Association [AOTA], 2020). Occupational therapists work in both individual and group settings with the goal of promoting "health, well-being, and participation" (AOTA, 2020, p. 23). The occupational therapy domain includes five main aspects: occupations, contexts, performance patterns, performance skills, and client factors (AOTA, 2020). Occupations are activities that individuals or communities engage in to structure their time and provide meaning and purpose in their lives (AOTA, 2020). The OTPF identifies several categories of occupations, including activities of daily living (ADLs), instrumental activities of daily living (IADLs), health management, rest and sleep, education, work, play, leisure, and social participation (AOTA,

2020). Occupational therapists address all these areas of occupation to help individuals lead meaningful lives with as much independence as possible. While occupational therapists often aim to achieve occupational balance, this concept is subjective (Liu *et al*., 2023). Occupational engagement is shaped by socio-cultural contexts, meaning that the idea of balance may vary across different contexts (Liu *et al*., 2023). Therefore, the goal is instead to achieve occupational harmony. By delivering evidence-based, client-centred interventions, occupational therapists adopt a holistic approach that considers both the person and their environment.

Although the core principles of occupational therapy are consistent worldwide, South Africa's unique context means that interventions may differ from those in more developed countries. Due to the pervasive nature of poverty and limited job opportunities in South Africa, many individuals struggle to meet their basic physiological and safety needs (Maslow, 1943). To help individuals better meet these needs, occupational therapists are encouraged to focus on economic occupations that promote empowerment, enhance economic independence, and ultimately improve quality of life (Ramukumba, 2015). In African contexts, occupational therapists are also urged to adopt a community-based rehabilitation (CBR) approach, which emphasises working with both collective communities and individuals (Jansen van Vuuren, Okyere and Aldersey, 2020). According to the WHO (2010), the initial role of CBR was to promote and protect the rights of individuals with mental health issues, support their recovery, encourage their active participation and integration into their families and communities, and contribute to the prevention of mental health conditions while promoting overall mental well-being for all community members. A definition by Blose, Cobbing and Chetty (2021) describes CBR as a strategy aimed at equalising opportunities, enhancing access to services, reducing poverty, and promoting the social integration of people with disabilities (PWDs). Occupational therapists may view CBR through the lens of occupational science,[3] especially because many communities face various occupational injustices, such as occupational deprivation and occupational imbalance. In community settings, the role of occupational therapists extends beyond being health practitioners; they also serve as communicators, collaborators, leaders, and health advocates (Naidoo and Van Wyk, 2023), ultimately contributing to community development (Ramukumba, 2015).

[3] Occupational science is a "way of thinking that enables an understanding of occupation, the occupational nature of humans, the relationship between occupation, health and wellbeing, and the influences that shape occupation" (WFOT, 2012b, p. 2, as cited in AOTA, 2020, p. 80).

Furthermore, occupational therapists working in PHC settings may use the *Prevention of and Treatment for Substance Use Disorders Policy (2023)* and the *NDMP (2019-2024)* as guidelines for SRD interventions. The *Prevention of and Treatment for Substance Use Disorders Policy (2023)* highlights that assessment in PHC settings involves identifying issues of concern, as well as the strengths of individuals and their families or caregivers (DSD, 2023). It also suggests that treatment and prevention services are to include vocational rehabilitation (DSD, 2023). Occupational therapists frequently provide vocational rehabilitation for a range of conditions across various healthcare systems, including PHC settings. The *Prevention of and Treatment for Substance Use Disorders Policy (2023)* also notes that community-based interventions involve support groups to assist service users in maintaining their sobriety (DSD, 2023), which aligns with the role of occupational therapists in conducting group therapy, particularly in mental health settings. Moreover, the *NDMP (2019-2024)* outlines support services aimed at preventing relapse, fostering personal development, enhancing self-sufficiency, and improving social interactions (DSD, 2019).

In addition, given that SRDs significantly affect an individual's performance skills, cognition and psychosocial well-being (Doğu & Özkan, 2023), occupational therapists play a crucial role in assessing the impact of substance use on service users' occupational performance and identifying areas of dysfunction (Crouch and Wegner, 2014). Through holistic interventions, occupational therapists aim to improve physical, cognitive and psychosocial skills (Doğu & Özkan, 2023), while also addressing service users' roles and habits (Lefine and Lesunyane, 2022). In doing so, they help individuals replace unhealthy behaviours with more meaningful and productive occupations, while carefully considering the service user's environment (Doğu & Özkan, 2023).

Furthermore, the WHO (2019) indicates that community health practitioners provide life skills training as part of health promotion. These life skills include decision-making, communication skills, self-awareness, assertiveness, stress management, emotional regulation and problem solving. These skills align with the role of occupational therapists in community settings, who provide an array of interventions focused on establishing life skills such as coping and problem-solving, stress management, and psychoeducation (HPCSA, 2022). Thus, occupational therapy interventions aim to enhance quality of life and achieve occupational harmony (Liu *et al*., 2023). In community settings, there is a particular emphasis on shifting the focus towards health prevention and promotion.

1.6.6 Conclusion

This section provided an overview of SRDs, including their impact on individuals and communities. It outlined multisectoral approaches to SRD interventions in South Africa and detailed the role of the occupational therapist, particularly in the context of community-based interventions. There was no literature regarding what SRD interventions occupational therapists conduct in the public PHC sector in Gauteng.

1.7 Methodology

1.7.1 Introduction

This section presents the methodology of the study. A qualitative exploratory study was conducted in the City of Johannesburg district to investigate the SRD interventions utilised by occupational therapists in the public PHC sector.

This section outlines the study design, the study setting, (which includes the study location, study population and the participant recruitment strategy), how the data was collected, managed and analysed, the pilot study and the trustworthiness of the methods used. The section concludes by describing the ethical considerations.

1.7.2 Study design

A qualitative exploratory study design was undertaken. Qualitative research makes use of words as data and can be analysed in numerous ways (Braun and Clarke, 2013). It is used to understand phenomena and "involves non-statistical methods and small samples and is often purposively selected" (Fouché and Delport, 2005, p. 74). This design was appropriate because it provided in-depth insights and allowed participants to express their experiences, thereby enhancing the understanding of their context. Exploratory research is also valuable for answering "what" questions (Fouché and Delport, 2005) and is particularly useful when existing knowledge about a phenomenon is limited (Bless and Higson-Smith, 1995, as cited in Fouché and Delport, 2005). There was also no literature found on occupational therapy interventions for SRDs in public PHC settings in the City of Johannesburg. Therefore, this design was well-suited for identifying these interventions.

The aim was to explore occupational therapists' practices in SRD interventions in the public PHC sector and to describe the lived experiences of these interventions, from the perspectives of both health practitioners and service users.

1.7.3 Study setting

The study was conducted in Gauteng, South Africa. Although Gauteng is the smallest of South Africa's nine provinces, it is the most populous, with over 15 million residents (Stats SA, 2022). There are six districts within the Gauteng province, but the study was conducted in only one of these districts, namely the City of Johannesburg, which has almost five million residents (Stats SA, 2022).

Figure 1 below indicates the location of Gauteng province in South Africa.

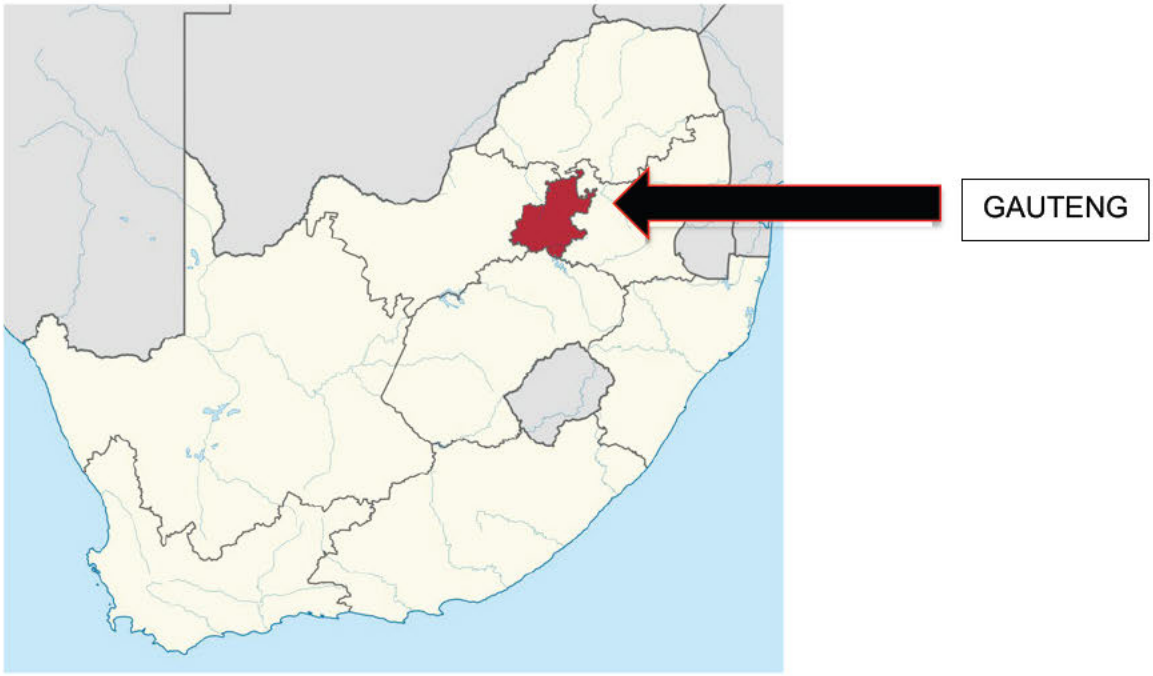

Figure 1: South African map highlighting the province of Gauteng

(*Location of Gauteng in South Africa,* 2011)

The City of Johannesburg district metropolitan municipality is divided into seven health sub-districts, named 'Johannesburg Sub-district A' to 'Johannesburg Sub-district G' (Ndlovu and Padarath, 2024). The study took place at clinics and CHCs in sub-districts (regions) C-G.

The following cities and towns constitute the City of Johannesburg district: Alexandra, Diepkloof, Diepsloot, Ennerdale, Johannesburg, Johannesburg South, Lawley, Lenasia, Lenasia South, Meadowlands East, Meadowlands West, Midrand, Orange Farm, Pimville, Randburg, Roodepoort, Sandton, and Soweto (City of Johannesburg Metropolitan Municipality).

Figure 2 below indicates the different regions and cities / towns in the City of Johannesburg district.

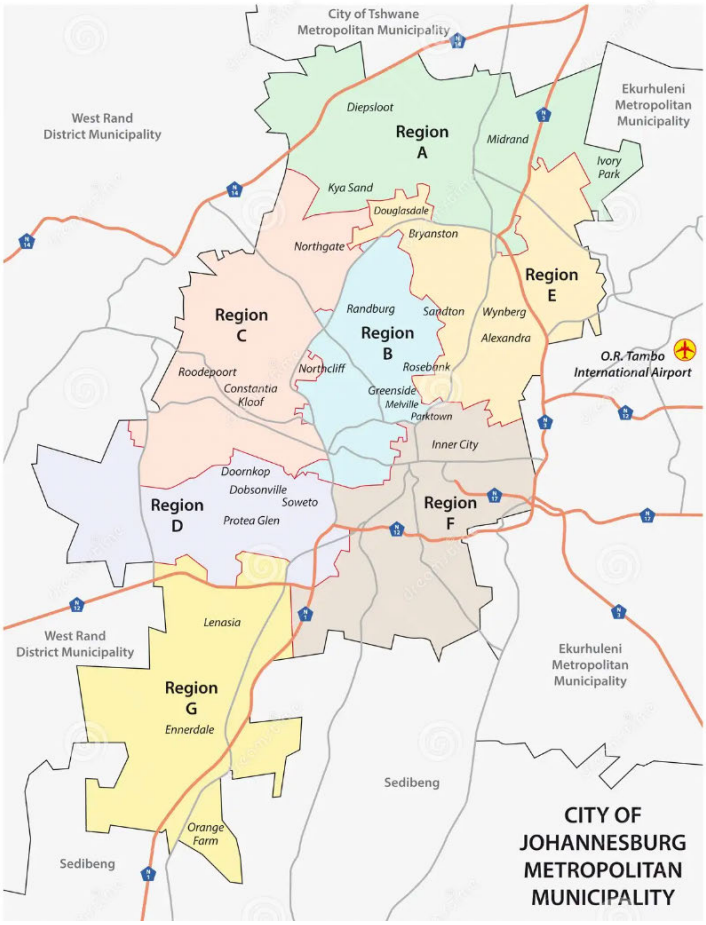

Figure 2: Map of the different regions within the City of Johannesburg district

(*City of Johannesburg metropolitan municipality vector image,* 2019)

Figure 3 below indicates the location of the health facilities within the City of Johannesburg district.

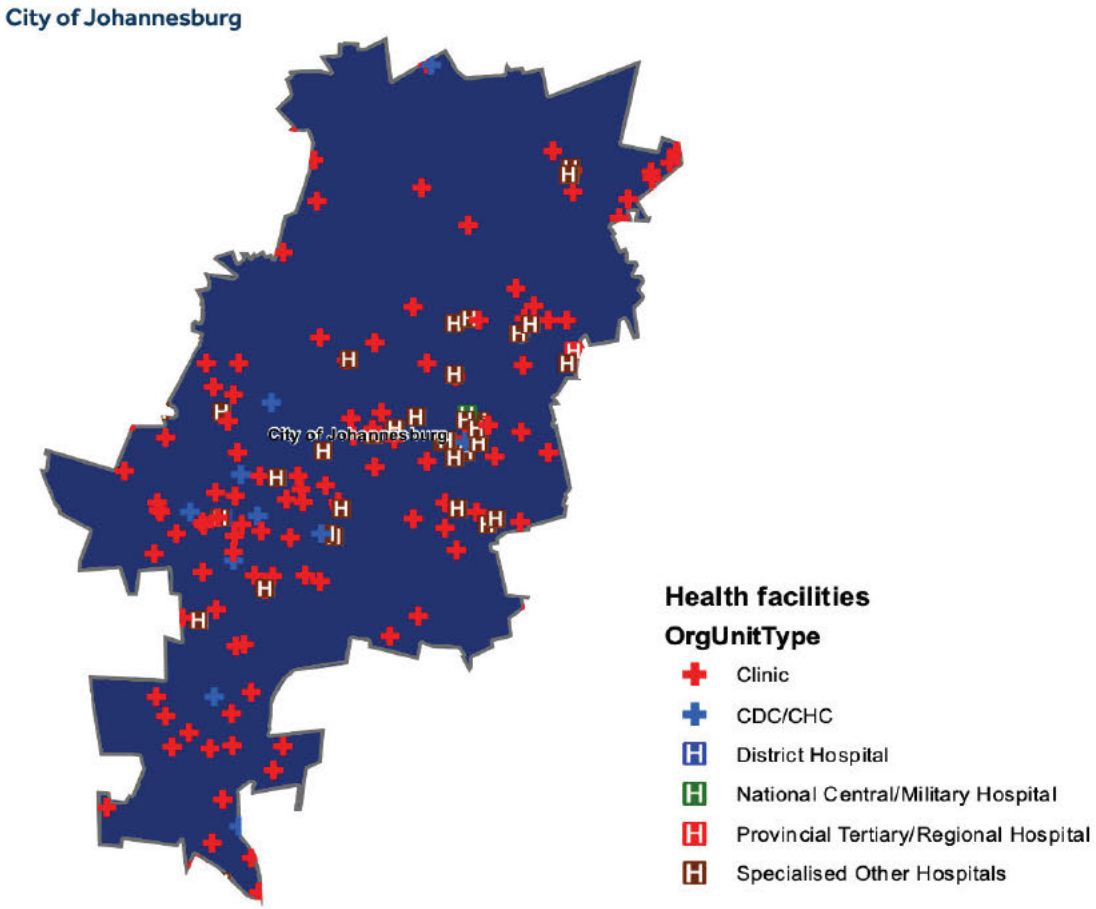

Figure 3: Visual representation of health facilities locations within the City of Johannesburg

(District Health Barometer 2022/2023)

While there are numerous clinics and CHCs in the district (see figure 3), the study continued to nine of them, namely; Discoverers, Alexandra, Hillbrow, Mofolo, Lenasia, Stretford, Finetown, Chiawelo and Zola.

1.7.4 Sampling

Purposive heterogenous (also called maximum variation) sampling method was used. Maximum variation sampling is a type of purposive sampling which is used to develop a comprehensive or holistic understanding of a specific phenomenon (Suri, 2011). This sampling method allowed the researcher to choose the participants based on set criteria (Shantikumar, 2018). The researcher employed maximum variation sampling by conducting semi-structured interviews with not only occupational therapists, but also MDT members

and service users. For this study, service users referred to patients who were receiving interventions for their SRDs from occupational therapists in the public PHC sector.

The sample comprised 18 participants working in or receiving treatment for SRDs within the public PHC sector in the City of Johannesburg. The study participants included eight occupational therapists, one occupational therapy technician (OTT), one clinical psychologist, one counselling psychologist, one social worker, one registered nurse, one psychiatry registrar, and four service users whom received occupational therapy SRD interventions. Sampling continued until data saturation was reached, defined as the point at which no new themes or information emerged from the data (Cohen and Crabtree, 2006). Data saturation was reached at different stages of the study, for different objectives (see 1.7.6 data collection tools/methods).

Tables I and Table II below describe the study sample and the inclusion criteria.

Table I: Sample population

Clinic / CHC (pseudonym)	Participant title	Name (pseudonym)	Data collection method
Sage Clinic	1 occupational therapist 1 service user 1 clinical psychologist 1 social worker	Sarah Tilly Odette Peter	Each participant engaged in one semi-structured interview with the researcher
Green Clinic	1 occupational therapy technician 1 counselling psychologist	Shiloh Ulani	
Lime Clinic	1 occupational therapist 1 registered nurse	Betty Sadie	
Emerald Clinic	1 registrar psychiatrist 1 occupational therapist	Tru Axel	
Aqua Clinic	2 occupational therapists	Nash Bea	
Cyan Clinic	2 occupational therapists	Celine Edward[4]	
Olive Clinic	1 occupational therapist	Ava	
Fern Clinic	3 service users	Umar Sipho Eli	

[4] This occupational therapist works at both Cyan clinic and Pastel clinic.

Table II: Participant descriptions and inclusion criteria

POPULATION	DESCRIPTION	INCLUSION CRITERIA
Occupational therapists	The 8 occupational therapists were qualified (not students). - 4 community service occupational therapists - 4 occupational therapists with 4-11 years' experience	○ Had to be a qualified occupational therapist (community service occupational therapists included). ○ Had to be working in the public PHC sector at the time of the interview. ○ Had to have at least six months of experience in public health care.[5]
Key stakeholders	This included multidisciplinary team members: - 1 OTT - 1 registrar psychiatrist - 1 registered nurse - 1 clinical psychologist - 1 counselling psychologist - 1 social worker	○ Had to be working in the public PHC sector at the time of the interview. ○ Had to have at least six months of experience in public health care.
Service users	These were 4 MHCUs (1 female who identified as coloured; and 3 males who identified as African). Their ages ranged from 27 to 46 years, and all were receiving and had received occupational therapy SRD interventions at the time of the interview.	○ Must have received at least two sessions for SRD interventions from a qualified occupational therapist in a public PHC setting.

1.7.5 Recruitment of participants

In addition to gaining ethical approval from the Biomedical Research Ethics Committee (BREC) at the University of KwaZulu-Natal (UKZN) (BREC/00006245/2023), the researcher submitted the proposal via the National Health Research Database (NHRD), and gained approval from the Johannesburg District Research Committee (DRC) (NHRD reference number: GP_202308_089) in order to conduct research in government clinics and CHCs in Johannesburg. The researcher also received a permission letter from the site gatekeeper,

[5] One community service occupational therapist had only five months of experience in public PHC. However, the researcher decided to include him in the study because he was responsible for service delivery at two of the clinics from which the researcher sought data. At one of these clinics, another occupational therapist had already been interviewed by the researcher. However, it was found that she was seeing physical rehabilitation patients rather than MHCUs.

namely the City of Johannesburg municipality. Once ethical approval and gatekeeper permission were granted, the researcher contacted the three regional managers via email and phone to explain the study, including its inclusion and exclusion criteria. Emails also included relevant consent forms and information documents. Since the researcher had already received approval to access the facilities from the Johannesburg DRC, she was able to visit the clinics and CHCs directly, present the ethical approval letters to the matrons, and conduct the research.

Upon arrival at each clinic, the researcher submitted the ethical approval documentation to either the matron, or the HR department. The researcher had to only sign one indemnity form (at the first clinic).

Table III below describes the specific recruitment process at each different clinic and CHC.

Table III: Recruitment process

CLINIC/CHC (pseudonym)	RECRUITMENT PROCESS
Sage	The researcher explained the study[6] to potential participants, obtained consent from the clinic's occupational therapist, and conducted the interview. At the clinic's mental health department, a registered nurse distributed information documents to other health practitioners. Three days later, a MHCU volunteered to participate after overhearing the nurses speaking about the study. Subsequent interviews were conducted with the clinical psychologist and social worker, following consent.
Green	Although the occupational therapist was on leave, the researcher explained the study to the OTT and an intern counselling psychologist, both of whom agreed to be interviewed.
Lime	The researcher explained the study to potential participants; one occupational therapist and one registered nurse agreed to interviews.
Emerald	The researcher explained the study to an occupational therapist, who agreed to an interview at a later time. While waiting, the researcher spoke with the registrar psychiatrist, who agreed to an immediate interview and thereafter, the researcher interviewed the occupational therapist. The occupational therapist suggested that the researcher contact other occupational therapists at different clinics and CHCs before

[6] Note: 'explained the study' includes distributing information documents and consent forms.

	visiting their facilities.[7] The therapist then reached out to the other therapists on the researcher's behalf, obtaining their permission to share their contact details in compliance with the POPI Act. The researcher subsequently contacted each occupational therapist, explained the study, and inquired about their availability and willingness to participate in an interview.
Aqua	Only one occupational therapist was at the clinic, and agreed to participate in the study. The researcher messaged the other occupational therapist who agreed to have an online interview via Zoom at a later stage.
Cyan	The researcher messaged the two occupational therapists working at the clinic to inform them about the study. Both occupational therapists signed the consent form via email and had interviews via Zoom, on differing days.
Olive	The researcher messaged the occupational therapist who gave consent to have an interview via Zoom.
Fern	The researcher messaged the occupational therapist, who was on leave for the rest of the year (2023). A few weeks later, she agreed to facilitate online Zoom interviews with three service users. The researcher emailed the information document and consent forms, which the occupational therapist used to obtain consent from the three service users. The interviews were conducted online after a group session when all three service users were at the clinic.

1.7.6 Data collection

To ensure all purposively selected participants were represented in the study, the researcher conducted individual semi-structured interviews. Semi-structured interviewing refers to asking predetermined open-ended questions, probing and then clarifying (Nieuwenhuis, 2019). The researcher was guided by the literature and the research question—What interventions do occupational therapists provide in the public primary health care sector in the City of Johannesburg district for substance-related disorders—to develop the interview questions (refer to annexures A-C for the interview guides). The semi-structured interviews were conducted between 27 November 2023 and 17 April 2024, until data saturation was reached. Data saturation occurred at different stages of the study for different objectives:

[7] The occupational therapist did not recruit other therapists for the researcher, as the researcher would have included them in the study anyway. However, having their contact details in advance was a useful strategy for planning.

- Objective one *(exploring the perspectives of occupational therapists regarding their SRD interventions)*: data saturation was reached after the eighth occupational therapist was interviewed. It took eight occupational therapists because four of them were still predominantly treating physical rehabilitation patients, and were not very involved with mental health services such as SRD interventions, even though integration occurred in April/May 2023.

- Objectives two *(exploring the perspectives of service users regarding occupational therapy SRD interventions)* and three *(exploring the service users' experiences of occupational therapy SRD interventions)*: data saturation was reached after the fourth service user was interviewed. However, three of the four services users were from the same clinic which was a limitation (see 3.6 for limitations).

- Objective four *(gathering recommendations made by service users and Department of Health key stakeholders' for possible strategies occupational therapists can make use of in SRD interventions)*: data saturation was reached after the four service users had been interviewed, as well as the six health practitioners. Even though six MDT members were interviewed in total, two of them were psychologists from different clinics, and therefore had different responses.

The semi-structured interviews were conducted in English, as all participants understood English and an interpreter was not required. Each interview lasted an average of 35 minutes, though some were longer. There were 11 interviews in-person, and seven interviews online using Zoom. To increase reliability, the researcher made use of audio recordings during the interviews. However, two participants declined to be recorded, requiring the researcher to use hand-written notes for their interviews. The interviews were transcribed verbatim. The data was anonymised by making use of pseudonyms for each participant. To increase the reliability of the semi-structured interviews, a pilot study was conducted prior to the study.

1.7.7 Pilot study

The researcher performed the pilot study at Sage Clinic with four participants who were also included in the overall population sample of the study. The pilot study sample includes Sarah (occupational therapist), Tilly (service user), Odette (clinical psychologist) and Peter (social worker). A pilot study afforded testing the semi-structured interview questions (Strydom and Delport, 2005). Each interview in the pilot study ranged from 7 to 34 minutes.

The pilot study highlighted the need for the researcher to clarify participant responses more effectively. It also increased the researcher's confidence in conducting interviews.

After the pilot study, additional questions were added to the interviews.

For all participants, the researcher added:

- "You have identified various barriers to substance abuse interventions, what do you think needs to happen or change to overcome these barriers?

For healthcare practitioners, the researcher added:

- "If the clinic had more staff and more resources, how would your interventions for substance abuse be different? (i.e. would they change? If so, how?)"

For service users, the researcher added:

- "If the clinic had enough staff and resources, what would you want the occupational therapists to do for you for your substance abuse?"

Table IV: Overview of objectives and methods used for data collection

Objectives	Sampling	Data Collection Tools	Data Analysis
1. To explore the intervention programmes used by occupational therapists in the City of Johannesburg district in the public primary health care sector when treating SRDs from the perspectives of occupational therapists.	8 occupational therapists	(refer to annexure A for interview schedule)	Thematic analysis
2. To explore the intervention programmes used by occupational therapists in the City of Johannesburg district in the public primary health care sector when treating SRDs from the perspectives of service users. **3.** To describe the experiences of service users who receive intervention for substance-related disorders by occupational therapists in the public primary health care sector in the City of Johannesburg district in Gauteng.	4 service users	(refer to annexure B for interview schedule)	
4. To identify recommendations by service users and DoH key stakeholders' for possible strategies for occupational therapy SRD interventions for the City of Johannesburg district in the public primary health care sector.	6 MDT members and 4 service users*	(refer to annexures B* and C for interview schedules)	

1.7.8 Data analysis

The study used thematic analysis to analyse the data, as it is a useful technique that can be conducted in various ways. This flexible analysing tool allowed the researcher to systematically identify and organise the data into emerging themes or patterns (Braun and Clarke, 2012). Braun and Clarke's (2006) six-phase framework served as the foundation for the analytic process, while their reflexive thematic analysis ensured that the researchers' approach was both reflexive and iterative (Braun and Clarke, 2019). Thematically analysing the data allowed the researcher to identify collective or shared experiences among the participants, with the aim to discover and describe occupational therapists' SRD interventions in the public PHC sector.

After each interview, the researcher used memo writing to reflect on impactful aspects in a research diary (i.e. reflexive journal in the form of a word document) (refer to annexure D for a screenshot). This consistent documentation of insights ensured a rigorous qualitative study. Memo writing can be described as written records about the researchers ideas and reflections about the data (Hecker and Kalpokas, 2024). The researcher identified common themes and ideas under each objective after each interview, ensuring all relevant data was tracked and connected to the study aim. This interpretative approach fostered reflexivity throughout the research process (see 1.7.10 for trustworthiness).

After transcription, the researcher reviewed the data corpus while re-listening to audio recordings to ensure accuracy before printing the transcripts. The researcher performed manual analysis, which contributed to a comprehensive understanding of the data, aligning with Braun and Clarke's (2006) phase one (familiarisation with the data) of their six-phase thematic analysis method. This also contributed to the credibility of the study. During this process, the researcher immersed herself in the content of the data to uncover the participants' experiences, perceptions, and assumptions regarding occupational therapy SRD interventions in public PHC settings.

Thereafter, the researcher moved onto phase two: generating initial coding of the data (Braun and Clarke, 2006). Braun and Clarke (2012) state that analysis is influenced by the researcher's perspectives, whether consciously or not. Therefore, the researcher used a combination of inductive and deductive approaches, recognising that analysis is never purely inductive.

The researcher's preconceived ideas and assumptions about the findings stemmed from her existing understanding of the data corpus. Additionally, the researcher's prior honours

study on occupational therapy interventions for SRDs in South Africa, along with her background as an occupational therapist who previously worked in a public health setting within the City of Johannesburg district, also shaped these assumptions. Refer to annexure E for a reflexive statement.

Therefore, the researcher intentionally used a hybrid approach by incorporating both deductive (theory-driven) and inductive (data-driven) approaches. Bingham and Witkowsky (2022) state that this approach enhances the structure, rigor, and analytical integrity of qualitative studies, as it utilises strengths of both approaches (Proudfoot, 2022). The researcher analysed the data using elements from multiple frameworks, including Braun and Clarke's (2006) six phases of thematic analysis, aspects of Bingham's (2023) five-phase qualitative analysis process (that incorporates deductive and inductive approaches), and aspects of the flexible hybrid approach as described by Swain (2018). The epistemological stance of the thematic analysis was predominantly constructionist in its approach, as it examined the ways in which participants' realities, meanings and experiences were ultimately the effects of a variety of discourses operating in society (Braun and Clarke, 2012). The themes were identified latently, as they involved interpretative work when examining the underlying assumptions and ideas of the participants responses (Braun and Clarke, 2012).

Using deductive strategies enabled the researcher to organise the data systematically, while inductive strategies facilitated the researcher in understanding the underlying narrative within the data (Bingham and Witkowsky, 2022). The deductive aspect of the analysis, guided by the works of Crabtree and Miller (1992), involved developing a set of 10 a priori codes (or categories) in the form of a 'codebook' to organise the data for interpretation (refer to annexure F for details). This clear trail of evidence contributes to the credibility of the study (Crabtree and Miller, 1999, as cited in Nowell *et al*., 2017).

The researcher organised the data into these 10 broad categories defined as a priori codes. During data analysis, if data did not align with these 10 categories, new emergent categories (termed a posteriori codes) were formed using inductive coding (Fereday and Muir-Cochrane, 2006). Each time new a posteriori codes emerged, the researcher conducted a thorough reanalysis of all previous transcripts to identify relevant data extracts that corresponded to these new codes. Refer to annexure G for a screenshot of the data that was organised into the a priori and a posteriori codes.

In addition to the initial 10 predefined categories (a priori codes), the researcher identified an additional 13 categories (a posteriori codes). These 23 codes were not yet fully

developed explanations, which was acceptable according to phase two of Braun and Clarke's (2006) six-phase thematic analysis. Some overlapping codes were merged and renamed, resulting in 15 single codes.

Table V below illustrates the consolidation of these codes (highlighted in corresponding colours), and table VI indicates the new codes.

In line with Braun and Clarke (2006), due to an overlap of individual data extracts over multiple categories, two categories were discarded as their data extracts were more appropriately located within other categories. The two discarded categories (codes) are indicated with a strikethrough in table V.

Table V: A priori and a posteriori codes

A PRIORI CODES (DEDUCTIVE)	A POSTERIORI CODES (INDUCTIVE)
Occupational therapy SRD interventions	Attitude of new occupational therapists
Leisure	~~Support systems (or lack thereof)~~
Group therapy	Service user's knowledge of substances
Barriers in PHC	Occupational therapy = pediatrics intervention, not adults
Community programmes	Healthcare practitioners' feelings of helplessness
Causes of substance abuse in communities and availability of substances	Screening for substance abuse
Collaboration between MDT	~~Importance of early intervention~~
Link between mental illness and substance abuse	Health practitioners require more training in substance abuse
Service users' experience of occupational therapy	Accessibility to rehabs
Occupational therapy intervention recommendations	High relapse rates
	Integration
	COVID-19 impact
	Compliance difficulties in mental health

Table VI: Renaming of merged categories

MERGED CATEGORIES (CODES)	NEW NAME
Occupational therapy SRD interventions	Overview of occupational therapy SRD interventions
Leisure	
Group therapy	
Occupational therapy = pediatrics intervention, not adults	Collaborative efforts
Collaboration between MDT	
Community programmes	Programmes and screenings
Screening for substance abuse	
High relapse rates	Compliance difficulties
Compliance difficulties in mental health	
Link between mental illness and substance abuse	

Following Braun and Clarke's (2006) phase-three (searching for themes) of their six-phase approach, the researcher subsequently reviewed and grouped the 15 categories (codes) under six different unnamed themes by identifying similarities among the codes. Table VII presents the regrouping, including a short description of the themes.

Table VII: Grouping of categories into unnamed themes

'THEMES'	A PRIORI & A POSTERIORI CODES	DESCRIPTION
Group 1	• Causes of substance abuse in communities and availability of substances • COVID-19 impact • Service user's knowledge of substances	Enablers of substance use
Group 2	• Barriers in PHC • Accessibility to rehabs • Programmes and screenings	Barriers relating to public PHC services and challenges within community environments
Group 3	• Integration • Attitude of occupational therapists • Collaborative efforts • Health practitioners require more training in substance abuse • Healthcare practitioners' feelings of helplessness • Compliance difficulties	Challenges faced by the MDT regarding their experiences in clinical settings (integration, attitudes, collaboration, training, feelings, and challenges with service users).
Group 4	• Overview of occupational therapy SRD interventions	Occupational therapy SRD interventions in totality.
Group 5	• Service users' experience of occupational therapy	Service users' experiences and perceptions of occupational therapy SRD interventions
Group 6	• Occupational therapy intervention recommendations	Any recommendations that were made

According to Braun and Clarke (2012), the researcher's role is to describe the underlying narrative of the data, in relation to the research question. Hence, the diagram below—based on Bronfenbrenner's ecological model (2005)—depicts how the six themes relate to the research question (refer to figure 4 below). The researcher allocated each group a broad preliminary name:

Group 1 = community environmental barriers

Group 2 = vast public PHC challenges

Group 3 = difficulties within clinic

Group 4 = occupational therapy space

Group 5 = the service user

Group 6 = what is next (relates to recommendations)

The researcher also identified four 'parts' to the research question (what interventions do occupational therapists provide in the public PHC sector in the City of Johannesburg district for SRDs?):

1. occupational therapy interventions
2. within an MDT
3. within a clinic or community health center
4. within a larger area (the City of Johannesburg District)

Specifically, **SRD** interventions with **service users**

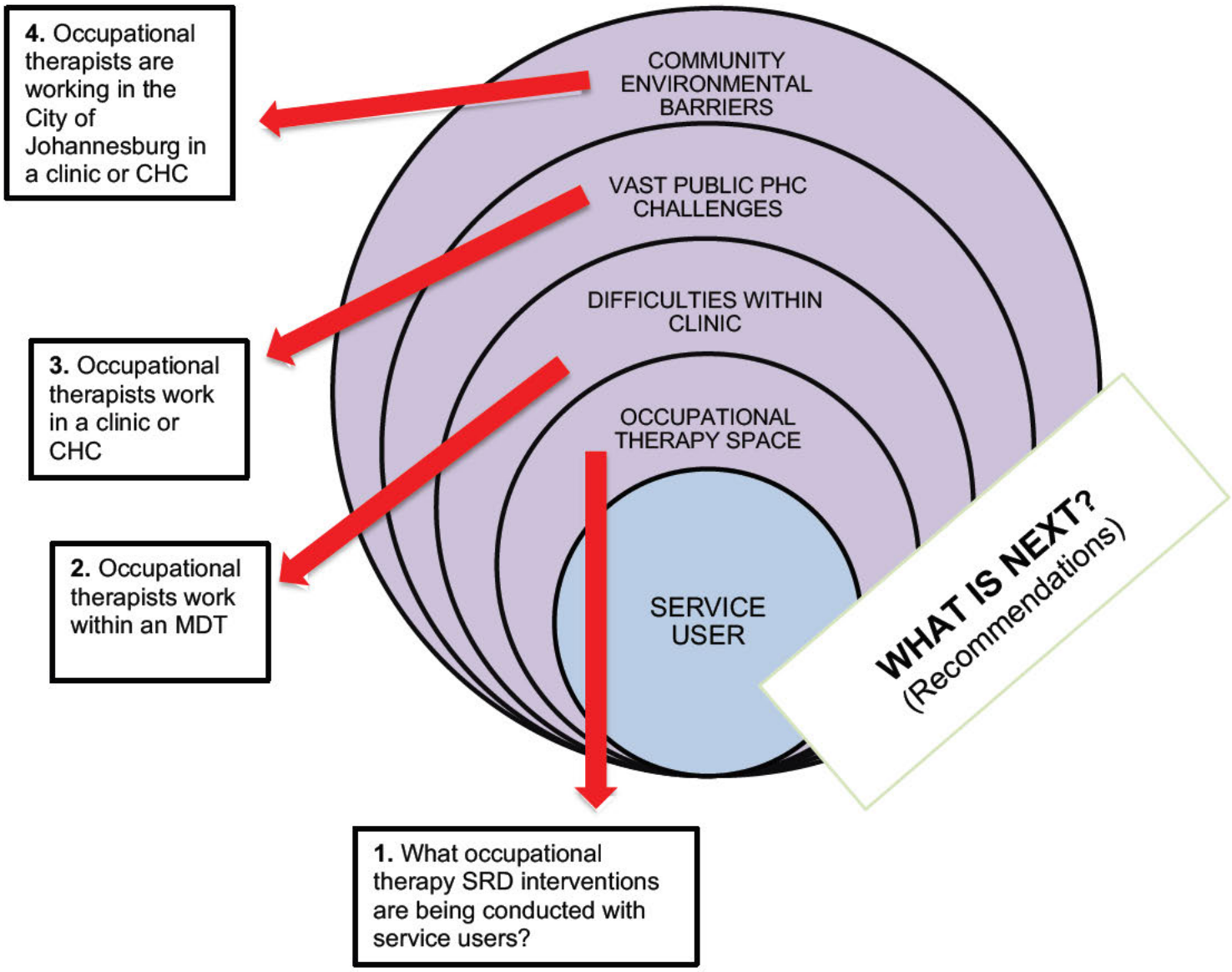

Figure 4: Themes in relation to the research question

The researcher understood and acknowledged the influence of the broader external context on the more specific internal context. Therefore, to identify the occupational therapy SRD interventions, it was essential to also understand the relational aspects of different contexts.

The researcher then created individual tables for each group (theme), which included specific data extracts relating to both a priori and a posteriori codes (refer to annexure H).

Thereafter, the researcher continued to phase-four of Braun and Clarke's (2006) six-phase analysis - reviewing potential themes. During this phase, it became evident that group five (the service user) was interconnected to group four (occupational therapy space), as the service users' experiences and perceptions of occupational therapy services (objectives two and three) were directly linked with, and influenced by, the 'occupational therapy space' (group four). This phase initially concluded with five groups (themes). The researcher continued to phase-five, defining and naming themes (Braun and Clarke, 2006).

The process of reviewing themes was iterative and extended into phase-six (producing the report), significantly influenced by supervisor feedback. Analysis was recursive (Braun and Clarke, 2012), with frequent revisits to phases four and five to adjust, rename, and regroup themes. Supervisors and literature (Braun and Clarke, 2006; Nowell *et al*., 2017) recommended organising themes to align directly with research objectives for better coherence and data representation. Consequently, the researcher reorganised and renamed themes and subthemes, resulting in six main themes, some with subthemes.

Table VIII illustrates the transition from old to new themes.

Table VIII: Final review and naming of themes

OLD names	*NEW names*	*FINAL renamed themes*
		OBJECTIVE 1:
1. Socioeconomic factors of communities contribute to substance use	**1. "it depends on the patient every time"**	**1. Individualised approaches to SRD interventions**
Substances are easily accessible in social contexts	**2. "we have to either run campaigns or we have to do screenings"**	**2. Campaigns and screenings**
Occupational deprivation and unemployment lead to boredom and stress	**3. "it's a bigger issue that needs more hands-on deck"**	**3. Barriers to service delivery**
Substances are used as a coping mechanism	The overloaded and under-resourced observation	The overloaded and under-resourced observation
Misinformation regarding substances	Challenges regarding the integration of 'mental health' and 'physical rehabilitation' occupational therapists	Challenges regarding the integration of 'mental health' and 'physical rehabilitation' occupational therapists
2. Public PHC services encounter multifaceted barriers	Lack of experience and poor collaboration efforts among the MDT	Lack of experience and poor collaboration efforts among the MDT
The public PHC sector is overloaded and under-resourced	**4. "they go back to the same environment"**	**4. Socioeconomic and contextual influences on substance use**
		OBJECTIVE 2 and 3:
The reality of SRD screenings and campaigns	**5. "so far I am in good hands"**	**5. Service users' experiences with occupational therapy**
Access to rehabilitation facilities comes with challenges	Occupational therapists as educators and facilitators	Occupational therapists as educators and facilitators
3. The experience of SRD Interventions is challenging for healthcare professionals	Occupational therapy interventions are experienced positively	Positive impact of occupational therapy interventions
		OBJECTIVE 4:
Challenges regarding the integration of 'mental health' occupational therapists and 'physical rehabilitation' occupational therapists	**6. Proposed solutions for improvement**	**6. Proposed solutions for improved SRD interventions**
Lack of experience and poor collaboration efforts among the MDT	Strengthen SRD prevention and promotion practices	Strengthen SRD prevention and promotion practices
High relapse rates contribute to healthcare professionals' feelings of helplessness	Collaborate within and beyond	Collaborate within and beyond
4. An overview of the diverse SRD interventions provided by occupational therapists		
The occupational therapy SRD interventions as outlined by the occupational therapists themselves		
Service users experience occupational therapy SRD interventions positively		
5. Recommendations for occupational therapists		
Strengthen SRD prevention and promotion practices		
Enhance SRD training		
Collaborate within and beyond		

1.7.9 Data management

Out of the 18 semi-structured interviews conducted in this study, 16 were recorded electronically while the remaining two interviews were documented through hand-written notes at the participants' request, as they declined recordings. Nine interviews were recorded using 'voice memos' on the researchers laptop, while seven were recorded on Zoom. The electronic data was stored in a password-protected Google Drive folder accessible only to the researcher, supervisors and the transcriber.

All participants received an information document which explained what the study entailed (refer to annexure I) and they provided informed consent to participate in the study (refer to annexure J for an example of the consent form). The participants were made aware that the recordings would only be used for academic purposes and pseudonyms would be used, to ensure confidentiality. The researcher protected the participants' identities in this study by using pseudonyms not only in the report writing of the study, but also when storing the electronic files in the Google Drive folder.

Recording the interviews ensured reliability, as the researcher had access to them during data analysis. After transcription, the researcher printed out all 18 transcripts. These hard copies, alongside signed consent forms and field notes, were secured in a locked cupboard accessible only to the researcher and supervisor. The electronic data, along with the shredded hard copies, will be disposed of within five years of completing the study or within five years of any publications based on the data set – this aligns with UKZN's '*policy on research ethics*'.

1.7.10 Trustworthiness of study

The four criteria used to demonstrate trustworthiness in the study included credibility, transferability, dependability and confirmability (Lincoln and Guba, 1985, as cited in Nowell *et al*., 2017). In addition, a reflexive journal was maintained throughout the study, providing credible documentation of thoughts, decisions, and reflections after each interview, including key points and responses related to the research question (Kakar *et al*., 2023). This electronic journal also facilitated the process of persistent observation by tracking personal biases and preconceptions from the study's outset (Cutcliffe and McKenna, 1999; Morse and Richards, 2002; Starks and Trinidad, 2007, as cited in Nowell *et al*., 2017), and served as auditable evidence, enhancing the study's trustworthiness (Lincoln and Guba, 1985; Koch, 1994, as cited in Nowell *et al*., 2017; Ahmed, 2024).

1.7.10.1 Credibility

Credibility was established through prolonged engagement with data, persistent observation, data collection triangulation, and peer debriefing (Lincoln and Guba, 1985, as cited in Nowell *et al*., 2017). Debriefing with supervisors and maintaining records of these meetings allowed for continuous reflection on the researcher's perspectives and thought processes (McMahon and Winch, 2018). Prolonged engagement with the data involved repeatedly listening to audio recordings and reading transcripts, as part of phase-one (familiarisation with data) in Braun and Clarke's (2006) six phase analysis (Nowell *et al*., 2017). Credibility was further supported by data triangulation, which refers to using multiple data sources. The researcher employed purposive maximum variation sampling to capture diverse viewpoints from different contexts (nine clinics), including not only occupational therapists but also service users and MDT members.

1.7.10.2 Transferability

Transferability allows reader's to relate the study finding's to their experiences or research by making their own decision about the transferability of the study when they read thick descriptions of the context and findings (Lincoln and Guba, 1985, as cited in Nowell *et al*., 2017; Nieuwenhuis, 2019; Kakar *et al*., 2023). Detailed information about the contexts of the clinics and CHCs was collected, as well as the service users' lives outside the clinic in their home environments, which they gave verbal accounts for. Comparing these contextual findings with relevant literature allows reader's to assess the transferability of the findings, considering that many rural communities and PHC settings in South Africa face similar challenges.

1.7.10.3 Dependability

Credibility and dependability are closely linked, and ensuring credibility also ensures dependability (Nieuwenhuis, 2019). The research process was "logical, traceable, and clearly documented," which ensured dependability (Tobin and Begley, 2004, as cited in Nowell *et al*., 2017, p. 3). Memo writing further enhanced both credibility and dependability by providing a detailed record of the researcher's thoughts throughout the research process (Hecker and Kalpokas, 2024). Additionally, dependability was achieved through conducting an in-depth thematic analysis, along with reflecting on codes, themes and overall findings.

1.7.10.4 Confirmability

Confirmability refers to the study being non-bias (Nieuwenhuis, 2019). "Confirmability is established when credibility, transferability, and dependability are all achieved" (Guba and Lincoln, 1989, as cited in Nowell *et al*., 2017, p. 3). Debriefing with supervisors contributed

to confirmability by providing objectivity through getting perspectives from individuals not directly involved in data collection, confirming the accuracy of the results (Ahmed, 2024).

1.7.11 Ethical considerations

The study received ethical clearance from the Biomedical Research Ethics Committee (BREC) of the University of KwaZulu-Natal (UKZN) on 17/11/2023 (**BREC/00006245/2023**) (refer to annexure K). Gate keeper permission was received from the Johannesburg District Research Committee (DRC)[8] on 23/11/2023 (**GP_202308_089**) (refer to annexure L) and the City of Johannesburg Municipality on 6/11/2023 (refer to annexure M).

A set of principles were applied to protect the participants from any emotional harm, discomfort and human rights violations**:**

1.7.11.1 Informed consent

Informed consent refers to participants being informed about the study and the impacts thereof, before the study begins (Strydom, 2005). Once ethical approval and gate keeper permission were granted, the researcher visited clinics and CHCs to conduct the study (refer to table III for an overview of how the participants were recruited). In addition to a verbal explanation of the study, the prospective participants were handed an information document which explained what the study entailed (refer to annexure I). Thereafter, the participants who chose to voluntarily participate in the study, signed a consent form (refer to annexure J). For the seven online interviews, the researcher received the signed consent forms via email. The participants were informed that they had the freedom to withdraw at any time without any repercussions, to ensure autonomy was maintained and to avoid causing any distress or discomfort. All 18 participants did not withdraw at any point from the study.

1.7.11.2 Non-maleficence and beneficence

The principle of non-maleficence refers to an obligation to not inflict harm on others and the principle of beneficence refers to an obligation to do something for the benefit of others (Jahn, 2011). The researcher followed the correct ethical procedures by gaining ethical approval and gate keeper permission before the study commenced. The researcher did not make any physical contact with the participants, as interviews only required verbal

[8] The Johannesburg DRC manages research in clinics and CHCs in Johannesburg through the National Health Research Database (NHRD) system.

communication. The study could be beneficial to the participants, because the findings can possibly inform policy changes and service delivery through their recommendations. The researcher gave the participants the option of providing their names and email addresses, so that a summary of the findings could be shared. In addition, the researcher will email the shortened report to the clinical regional managers, the Johannesburg DRC, the NHRD, and the City of Johannesburg Municipality. The researcher will also publish a manuscript relating to the study, to maximise benefits for the public PHC sector, occupational therapy interventions for SRDs, and occupational therapy curricula in universities. University occupational therapy departments may use the study's findings to reassess and potentially revise their academic curricula concerning SRDs, given that the study revealed a lack of SRD intervention training among newly qualified occupational therapists.

1.7.11.3 Confidentiality and anonymity

Confidentiality refers to protecting individuals' identities by not revealing their personal information (Sanjari, 2014) and handling their information in a confidential manner (Strydom, 2005). All information was kept confidential. The researcher informed the participants that their privacy will be maintained throughout the study. The in-person semi-structured interviews were conducted in private (and empty) consultation rooms at the clinics and CHCs. The online interviews via Zoom were conducted in a private room at the researchers home, with the door closed. No personal information such as the participants' names were transcribed during data collection, data management or data analysis. All participants were allocated pseudonyms when storing data in a password-protected Google Drive folder, as well as when writing this report. The researcher also used pseudonyms for the clinics and CHCs in this report which affords participants more protection (due to staff shortages, there might only be one occupational therapist at a clinic, so if the researcher had to use the clinic name, the identity of the participant may be exposed).

1.7.11.4 Inclusivity

Inclusivity means that the "recruitment, selection, exclusion and inclusion of participants for research must be just and fair" (DoH, 2015a, p. 16). To ensure fair and equal inclusion of all relevant participants, the researcher did not discriminate or neglect any participant who qualified for the study (see inclusion criteria in table II). Each participant had an equal amount of time with the researcher during the interview process (an average of 35 minutes). In addition, the four interviews from the pilot study were transcribed and included in the final sample population of the study.

1.7.12 Summary

This section presented an overview of the study design, study setting, sample population, recruitment of participants, data collection, pilot study, data analysis, data management, trustworthiness of the study, and ethical considerations.

1.8 Study outline

The study outline complies with the thesis format required by the University of KwaZulu-Natal (UKZN).

Chapter 1 (Introduction) set the stage for the study by providing essential background and context. The literature review gave an overview of SRDs both globally and within specific national contexts. It examined the effects of SRDs on individuals' lives and noted the impact of substance misuse on occupational functioning. The review covered multisectoral intervention strategies and specific approaches within occupational therapy. The chapter concluded with a detailed description of the methodology, outlining the study design, setting, sample population, participant recruitment, data collection, pilot study, data analysis, data management, and measures of trustworthiness, along with ethical considerations.

Chapter 2 (Manuscript) includes an abstract, an overview of the literature on SRDs, and a summary of the methodology. The results section presents the study findings in relation to the study objectives and discusses these findings. The chapter adheres to the manuscript guidelines set forth by the South African Journal of Occupational Therapy (SAJOT).

Chapter 3 (Synthesis) describes the conclusions and recommendations, explains the process for disseminating findings, outlines the study's limitations, and indicates the significance of the findings for the profession of occupational therapy. It also addresses implications for university curricula and the improvement of occupational therapy SRD interventions within the public PHC sector.

CHAPTER TWO:
MANUSCRIPT

TITLE

Occupational therapy interventions for substance-related disorders in the public primary health care sector in the City of Johannesburg

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STATUS

Postgraduate student**:** M. OT (UKZN)

AUTHOR CONTRIBUTIONS

The Masters candidate devised the study, established a proposal, collected and analysed data, and generated the manuscript with guidance from supervisors, Dr December Mpanza and Ms Phakeme Zinhle Mkhize.

ABSTRACT

Introduction: Substance-related disorders pose significant intersecting health and social challenges in South Africa. The 2023 Prevention of and Treatment for Substance Use Disorders Policy emphasises involving service users in intervention planning, integrating support groups, and incorporating vocational rehabilitation. However, occupational therapy interventions for substance-related disorders in primary health care settings remain unclear.
Methods: An exploratory qualitative study investigated substance-related disorder interventions provided by occupational therapists in the City of Johannesburg's public primary health care facilities. Purposive heterogeneous sampling was used to select eighteen participants consisting of occupational therapists (n=8), multidisciplinary team members (n=6) and service users (n=4). Semi-structured interviews were audio-recorded, written, transcribed verbatim and thematically analysed.
Results: Six themes emerged: (1) Individualised approaches to substance-related disorder interventions, (2) Campaigns and screenings, (3) Barriers to service delivery, (4) Socioeconomic and contextual influences on substance use, (5) Service users' experiences with occupational therapy, and (6) Proposed solutions for improved substance-related disorder interventions.
Conclusion: Despite challenges in South African public health services—such as underfunding, resource limitations, and staff shortages—occupational therapists in primary health care settings provide numerous occupation-based interventions for substance-related disorders. These interventions address occupational performance in individual and group settings, with gardening groups being the most common form of group intervention.
Implications for practice: The findings suggest that occupational therapy interventions for substance-related disorders primarily focus on leisure, education, work, psychoeducation, coping skills development, and referrals to learnerships. However, health promotion and substance-related disorder prevention are often underemphasised, with the primary focus remaining on addressing physical ailments. The findings align with the *2008 Prevention of and Treatment for Substance Abuse Act*, which suggests that occupational therapists, as mental health practitioners, should focus on increasing awareness, prioritising substance abuse campaigns and screenings, and fostering collaboration within multidisciplinary teams.

Key words: substance abuse; occupational therapists; public health care; community-based intervention

INTRODUCTION

The knowledge of occupational therapists and other members of the multidisciplinary team in managing substance abuse and substance-related disorders is essential for identifying areas that require attention. The *National Drug Master Plan (NDMP) (2019-2024)*[1] and the *Prevention of and Treatment for Substance Use Disorders Policy (2023)*[2] define substance abuse as excessive use of a substance without medical justification, despite its negative impacts. For this study, 'substance-related disorders' (SRDs) and 'substance abuse' are used interchangeably. SRDs significantly affect performance skills, cognition, and psychosocial well-being.[3] Individuals with SRDs often withdraw from activities such as hobbies and family gatherings,[4] and have comorbid mental health conditions. They also experience difficulties in fulfilling life roles and present with poor academic or work performance. [4] These functional disruptions highlight the importance of a holistic approach by occupational therapists.[5]

By addressing behaviours and lifestyles—a practice established for many years[4] and highlighted in the *NDMP (2019-2024)*[1]—occupational therapists aim to enhance quality of life.[6] They work in primary health care (PHC) settings such as clinics and community health centres (CHCs) across South Africa. The Department of Health (DoH) promotes health equity through its PHC approach by enhancing service access, addressing environmental factors, and supporting healthy lifestyles, covering health promotion, prevention, treatment, and rehabilitation.[7] In addition to health promotion activities such as life skills training (e.g., coping and problem-solving, stress management, and psychoeducation),[8] occupational therapists make significant contributions to PHC by conducting screenings and providing early interventions aimed at reducing the incidence and impact of severe disability and morbidity.[9] They also contribute to primary, secondary, and tertiary prevention through their work across all levels of healthcare. However, an exploratory qualitative study conducted in KwaZulu-Natal found that occupational therapists in PHC settings tend to emphasise rehabilitation over health promotion and disease prevention,[10] which is concerning given the need for occupational therapy SRD interventions in these settings.[4, 7, 11] The study did not specify whether other multidisciplinary team (MDT) members focus on health promotion and disease prevention.[10] However, according to the *National Mental Health Policy Framework and Strategic Plan (2023-2030)*, Ward-based PHC Outreach Teams (WBPHCOTs), particularly community health workers (CHWs), play a significant role in health prevention and promotion.[7] Additionally, the Department of Social Development (DSD) prioritises health prevention and promotion[1] and is expected to collaborate closely with the DoH.[2]

Occupational therapists began working in PHC mental health settings in 2021, following the response by the Gauteng DoH to the 2016 Life Esidimeni tragedy,[12] which resulted in the deaths of 144 mental health care users (MHCUs) due to negligence.[13] By July 2021, new vacancies for mental health occupational therapists became available in rural communities in Gauteng. These therapists adhered to guidelines stipulated in the *National Mental Health Policy Framework and Strategic Plan (2013-2020)*, which emphasises coordinating services for mental disorders and substance use disorders (SUDs), as these conditions often coexist.[2,14] However, in April/May 2023, occupational therapists in PHC settings within the City of Johannesburg were integrated into a combined role encompassing both mental and physical rehabilitation, which led to the elimination of specific mental health positions. The impact of this integration on mental health interventions, particularly for SRDs, remains unclear.

The problem is that existing literature on occupational therapy interventions for SRDs in South Africa is limited—especially in PHC settings—and international studies may not always be applicable to the country's unique context. There has been research conducted in KwaZulu-Natal regarding occupational therapy in PHC settings.[15-19] However, no literature was found on occupational therapy interventions for SRDs in the public PHC sector within the City of Johannesburg district. Furthermore, the researcher's experience working as an occupational therapist in a public tertiary hospital in Gauteng revealed that many individuals admitted to public psychiatric wards were using and abusing substances. This observation prompted the researcher to question the "groundwork" conducted by occupational therapists regarding SRD interventions at the PHC level.

LITERATURE REVIEW

Substance abuse is a global issue with high prevalence. In 2021, approximately 39.5 million individuals worldwide had a drug use disorder (DUD), and 13.5 million individuals aged 15 to 16 used cannabis.[20] The World Health Organisation (WHO) reports 3.3 million annual alcohol-related deaths and 15.3 million individuals with DUDs.[21] South Africa has been identified as having one of riskiest patterns of alcohol consumption globally and the highest level of intake in Africa.[2] Cannabis remains the world's most widely used substance.[23] In Gauteng, 50% of service users in treatment centres report cannabis as their primary or secondary drug,[2] and 46% are polysubstance users.[24,25] The COVID-19 pandemic exacerbated SRD issues by significantly impacting overall mental health, leading to increased anxiety, depression, and substance misuse,[26] and a rise in psychiatric ward admissions for substance-induced psychotic disorders (SIPDs) in Gauteng.[27]

In South Africa, public and private healthcare systems differ significantly, with the underfunded public sector facing severe resource and staff shortages.[2,15,28] Despite a 6% increase in patient visits in PHC in 2022/23,[29] only 25.2% of occupational therapists work in the public sector, which serves 84% of the population.[30] This disparity impacts service delivery, and may limit focus on SRDs due to high patient volumes and limited time.[31] Furthermore, addressing SRDs requires a multisectoral approach.[1,2] The DSD leads efforts to combat substance abuse, with the Central Drug Authority (CDA), overseeing the implementation of the *NDMP (2019-2024)*.[1,32] The *NDMP (2019-2024)* specifies departmental responsibilities for addressing substance abuse and aims to make South Africa free of it.[1] The *2008 Prevention of and Treatment for Substance Abuse Act* recognises occupational therapists as mental health practitioners and mandates that community-based SRD services incorporate prevention strategies and involve a multidisciplinary team (MDT) including social workers, professional nurses, and other mental health practitioners.[11] Thus, occupational therapists are expected to implement SRD prevention strategies in clinics and CHCs.

The Occupational Therapy Practice Framework (OTPF) defines occupational therapists as professionals who design occupation-based interventions by considering the transactional relationship between the client, their meaningful occupations, and their context.[33] They promote "health, well-being, and participation."[33:23] The domain of occupational therapy includes five main aspects: occupations, contexts, performance patterns, performance skills, and client factors.[33] Occupations, which give meaning and structure to life, are categorised into activities of daily living (ADLs), instrumental activities of daily living (IADLs), health management, rest and sleep, education, work, play, leisure, and social participation, which therapists address to support harmonious, meaningful, and independent living.[33] However, in African contexts, occupational therapists are urged to prioritise economic occupations, with a focus on skills development and income-generating initiatives, to promote empowerment and help individuals better meet their basic physiological and safety needs, [34] which are often difficult to achieve due to pervasive poverty. [35] In South Africa, occupational therapists are also encouraged to adopt a community-based rehabilitation (CBR) approach, which focuses on both community and individual support,[36] aiming to protect the rights of individuals with mental health issues, aid their recovery, integrate individuals into communities, and promote overall mental well-being.[37] CBR also aims to equalise opportunities, enhance access to services, reduce poverty, and promote social inclusion for people with disabilities (PWDs).[38]

Additionally, the *Prevention of and Treatment for Substance Use Disorders Policy (2023)* emphasises involving service users and their support networks in intervention planning, integrating support groups for sobriety, and incorporating vocational rehabilitation—commonly provided by occupational therapists—into treatment and prevention services.[2] The *NDMP (2019-2024)* advocates for support services that prevent relapse and enhance personal development, self-sufficiency, and social interactions.[1] In addition, community health practitioners provide life skills training, including decision-making, communication, self-awareness, assertiveness, stress management, emotional regulation, and problem solving.[31] These skills complement the role of occupational therapists in community settings, where they focus on psychoeducation and life skills like coping and stress management,[8] ultimately promoting occupational harmony and overall quality of life.

However, the specific role of occupational therapists in SRD interventions is often not clearly defined or addressed in government policies and legislation, resulting in their function being broadly described as part of general PHC services. Furthermore, although robust guidelines, policies, and legislation for substance abuse interventions are available across the broader healthcare workforce, their practical effectiveness remains questionable. This study explored occupational therapy interventions for SRDs in the City of Johannesburg's public PHC sector by examining the perspectives of occupational therapists and service users, evaluating user experiences, and includes recommendations from service users and DoH stakeholders to enhance these interventions.

METHODS

Study design

A qualitative exploratory study design was used to explore occupational therapists' practices and service users' experiences with SRD interventions in the public PHC sector. Exploratory research effectively addresses 'what' questions and is particularly useful for investigating under-researched phenomena.[39] This design was appropriate as it captured participants lived experiences[40] and contextual understanding, especially given the absence of literature on this topic in the City of Johannesburg's public PHC settings.

Study setting

The study was conducted in the City of Johannesburg, one of six districts in the Gauteng province, in South Africa. Gauteng is the smallest of the country's nine provinces, yet the most populous with over 15 million residents, about five million of whom live in the City of

Johannesburg.[41] Out of the many clinics and CHCs in the district, nine were selected—Alexandra, Chiawelo, Discoverers, Hillbrow, Lenasia, Finetown, Mofolo, Stretford, and Zola—due to their provision of occupational therapy services, either through employment or outreach. Occupational therapists at these facilities provide psychiatric and physical rehabilitation services to clients from surrounding areas, primarily those from low socioeconomic backgrounds. Many surrounding communities are underdeveloped and socioeconomically disadvantaged, making residents particularly vulnerable to substance-related issues.[20,21]

Sampling

A purposive heterogenous (also called maximum variation) sampling method was used to select 18 participants based on specific criteria[42] (refer to Table I below). For this study, service users were defined as patients receiving SRD interventions from occupational therapists in the public PHC sector. Sampling continued until data saturation was reached, defined as the point at which no new themes or information emerged from the data.[43]

Table I: Participant descriptions and inclusion criteria

POPULATION	DESCRIPTION	INCLUSION CRITERIA
Occupational therapists	Included 8 occupational therapists: ▪ 4 community service occupational therapists ▪ 4 occupational therapists with 4-11 years' experience	- Had to be a qualified occupational therapist (community service therapists included). - Had to be working in the public PHC sector. - Had to have at least six months of experience in public health care. (1 community service therapist with only five months of experience in public PHC was included because he was responsible for service delivery at two of the clinics from which data was sought.)
Key stakeholders	Included 6 MDT members: ▪ 1 occupational therapy technician (OTT) ▪ 1 registrar psychiatrist ▪ 1 registered nurse ▪ 1 clinical psychologist ▪ 1 counselling psychologist	- Had to be working in the public PHC sector at the time of the interview. - Had to have at least six months of experience in public health care.

	▪ 1 social worker	
Service users	Included 4 MHCUs who were receiving SRD interventions from an occupational therapist.	- Must have received at least two SRD intervention sessions from a qualified occupational therapist in a public PHC setting.

Data collection

Data were collected via individual semi-structured interviews until data saturation was reached. The interview questions were developed by the researcher, guided by the literature and the research question. The interviews were conducted between 27 November 2023 and 17 April 2024, in English, averaging 35 minutes. Upon arrival at each clinic and CHC, the ethical approval documentation was submitted to either the matron or the HR department. The researcher then introduced the study to the occupational therapy departments and MDT members, provided information and consent forms, and collected signed consents. One service user volunteered after being informed about the study by nurses, while the other three were recruited by an occupational therapist, following a group session on their SRDs. Of the 18 interviews, 11 were in-person at clinics and CHCs, and seven were online via Zoom. To increase reliability, interviews were audio-recorded with consent, except for two participants who declined recording, for whom hand-written notes sufficed.

Pilot study

A pilot study was conducted at Sage clinic (a pseudonym) with four participants—one occupational therapist, one service user, one clinical psychologist, and one social worker—to enhance the study's reliability. These participants were included in the final sample. A pilot study afforded testing the semi-structured interview questions.[39] It highlighted the need for the researcher to clarify participant responses more effectively and also increased the researcher's confidence in conducting interviews. After the pilot study, additional questions were added to the interviews.

Data analysis

The audio-recorded interviews were transcribed verbatim and analysed thematically. Braun and Clarke's six-phase thematic analysis[44] guided the analytic process, while their reflexive thematic analysis framework[45] ensured that the researchers' approach was both reflexive and iterative. Accuracy was ensured by reviewing the data and re-listening to recordings. Manual analysis enhance data understanding and credibility, while a constructionist epistemological stance explored how participants' realities, meanings and experiences are shaped by societal discourses.[44] A hybrid approach[46,47] incorporating both deductive[48] and inductive[49,50] methods was used, with predetermined codes based on literature, research aims and interview questions[46,48] and new codes derived from the data.[50] This approach enhanced the study's structure, rigor, and analytical integrity.[51] Codes were organised into categories, then refined into themes and sub-themes through a recursive process.

Ensuring trustworthiness

To ensure trustworthiness, the study used four criteria: credibility, transferability, dependability and confirmability.[52] Credibility was established through prolonged data engagement, triangulation from multiple data sources, and supervisor debriefing,[52] which also contributed to confirmability by incorporating perspectives from individuals not directly involved in data collection (supervisors).[53] Memo writing further enhanced credibility, as well as dependability, by documenting the ideas.[54] Comparing detailed descriptions of the clinic and CHC contexts with relevant literature allows access to the transferability of the findings.[52,55,56] A reflexive journal tracked thoughts, decisions, reflections,[56] and personal biases, serving as auditable evidence, further enhancing the study's trustworthiness.[52,53]

Ethical considerations

The study was approved by the Biomedical Research Ethics Committee (BREC) at UKZN (BREC/00006245/2023) and received gatekeeper permission from the Johannesburg District Research Committee (DRC) (NHRD reference: GP_202308_089), and the City of Johannesburg municipality. The researcher notified regional managers about the study. All participants provided informed consent, were assured they could withdraw at any time without repercussions (none chose to), and confidentiality was maintained (pseudonyms have been used for participants, clinics and CHCs).

FINDINGS

The results include a summary table with relevant demographic information for all participants (refer to Table II) and a thematic map illustrating the six themes related to the four study objectives (refer to Table III). The themes provide insight into occupational therapy interventions for SRDs, challenges faced in PHC settings, factors influencing substance use, service users' experiences, and recommendations for improvement. Theme one explores the factors guiding occupational therapists in their interventions, including their assessment and treatment of SRDs. Theme two focuses on the campaigns and screenings conducted by occupational therapists for SRDs. Theme three addresses the systematic challenges within PHC facilities and is further divided into three subthemes. Theme four identifies the contextual factors that enhance substance use within communities. Theme five highlights service users' experiences with occupational therapy interventions for their SRDs and includes two subthemes. Theme six is made up of two sub-themes that present solutions to improve occupational therapy interventions for SRDs.

Table II: Summary of participants

Clinic / CHC	Name of participant	Participant title	Years in public healthcare
Sage	Sarah	occupational therapist	Community service
	Tilly	service user	n/a
	Odette	clinical psychologist	3
	Peter	social worker	19
Green	Shiloh	OTT	20
	Ulani	counselling psychologist	2
Lime	Betty	occupational therapist	5
	Sadie	registered nurse	3
Emerald	Tru	registrar psychiatrist	6
	Axel	occupational therapist	4
Aqua	Nash	occupational therapist	Community service
	Bea	occupational therapist	10
Cyan	Celine	occupational therapist	Community service
	Edward	occupational therapist	Community service
Pastel			
Olive	Ava	occupational therapist	3

Fern	Umar	service user	n/a
	Sipho	service user	n/a
	Eli	service user	n/a

Table III: Thematic map

The aim of the study was to explore the SRD interventions used by occupational therapists in the public PHC sector in the City of Johannesburg district, from the perspectives of occupational therapists, multidisciplinary team members and service users.		
Objectives	*Themes and sub-themes*	
1. To explore the intervention programmes used by occupational therapists in the City of Johannesburg district in the public PHC sector when treating SRDs from the perspectives of occupational therapists.	**Theme 1:** Individualised approaches to intervention	
	Theme 2: Campaigns and screenings	
	Theme 3: Barriers to service delivery	The overloaded and under-resourced observation
		Challenges regarding the integration of 'mental health' and 'physical rehabilitation' occupational therapists
		Lack of experience and poor collaboration efforts among the MDT
	Theme 4: Socioeconomic and contextual influences on substance use	
2. To explore the intervention programmes used by occupational therapists in the City of Johannesburg district in the public PHC sector when treating SRDs from the perspectives of service users.	**Theme 5:** Service users' experiences with occupational therapy	Occupational therapists as educators and facilitators
		Positive impact of occupational therapy interventions
3. To describe the experiences of service users who receive intervention for SRDs by occupational therapists in the public PHC sector in the City of Johannesburg district in Gauteng.		
4. To provide recommendations by service users and DoH key stakeholders' for possible strategies for occupational therapy SRD interventions in the City of Johannesburg district in the public PHC sector.	**Theme 6:** Proposed solutions for improvement	Strengthen SRD prevention and promotion practices
		Collaborate within and beyond

Data sources for the next section are organised as follows: "quote" (patient name, clinic/CHC, title).

Theme 1: Individualised approaches to SRD interventions

This theme explores the factors influencing occupational therapists' intervention choices, focusing on their assessment and treatment strategies for SRDs. The findings indicate that interventions are highly individualised, with therapists adapting their approaches to the unique needs of each client. As one participant (Sarah, Sage clinic occupational therapist) stated it "depends on the patient every time," highlighting the client-centered nature of occupational therapy. Study findings indicated that occupational therapists employ a range of SRD interventions, in both individual and group settings. Key factors guiding their intervention choices were also identified. As Axel, an occupational therapist at Emerald clinic, explained:

> *"…follow your occupational therapy process…it will differ if the patient is acute or chronic...what is important to the patient." (Axel, Emerald, occupational therapist)*

Another occupational therapist noted that experience guides selection of interventions:

> *"My studying…occupational performance areas…CBR…years of experience that I have…knowing what will work, what won't work." (Bea, Aqua, occupational therapist)*

A different occupational therapist noted that family input is a key factor:

> *"It is based on the patient…not all of them are able to make their own decisions, so we do need some family input." (Betty, Lime, occupational therapist)*

Standardised tests are used for assessments by some occupational therapists:

> *"…we are using the SLUMS…the MoCA." (Ava, Olive, occupational therapist)*

> *"…[we] do a MMSE…" (Edward, Cyan and Pastel, occupational therapist)*

Among other aspects, assessing service users' levels of creative ability was also reported:

> *"…looking at creative ability..." (Ava, Olive, occupational therapist)*

Treatment interventions often focus on vocational rehabilitation:

> *"…it's mostly voc…learnerships and CVs." (Sarah, Sage, occupational therapist)*

> *"…we look for learnerships for them." (Ava, Olive, occupational therapist)*

Another occupational therapist, Edward, stated that he focuses on *"job acquisition skills"*, including tasks such as compiling CVs and scanning documents. He observed the following:

> *"…I am able to use work to target your IADLs…self-care…socialising…[managing] your medication." (Edward, Cyan and Pastel, occupational therapist)*

Referring service users to learnerships seemed to be helpful:

> *"…that's where we've seen a lot of progress…they got into a learnership; they're now employed." (Tru, Emerald, registrar psychiatrist)*

Leisure was also identified as an intervention goal:

> *"I work on leisure and recreational activities." (Bea, Aqua, occupational therapist)*

With some service users, interventions focus on ADL's, cognition or self-esteem:

> *"…you have to do mostly ADLs...client factors based on poor memory or poor attention…a bit of affirmation activities" (Axel, Emerald, occupational therapist)*

In addition, coping skills and healthy habits are addressed:

> *"…from what I do on clinic level is accessing other healthy habits, so coping mechanisms and coping skills." (Bea, Aqua, occupational therapist)*

Another occupational therapist conducts groups at her clinic:

> *"…group them according to their level of functioning…medication compliance… where we're trying to prevent relapse…insight [group]…gardening group...we still try to have the job seekers group." (Ava, Olive, occupational therapist)*

A different occupational therapist noted the importance of being an educator and an advocate:

> *"…family education…education in schools regarding substances…advocating for these patients to access specialised services." (Bea, Aqua, occupational therapist)*

Theme 2: Campaigns and screenings

This theme provides insight into the health promotion campaigns and screenings conducted by occupational therapists within clinics and CHCs. These initiatives are integral to promoting health and preventing illness within the population. It was noted that all

participating clinics and CHCs engaged in such campaigns at various points throughout the year. As Bea, an occupational therapist at Aqua clinic, explained, "we have to either run campaigns or we have to do screenings." However, although occupational therapists conduct campaigns, many of the campaigns often focus on physical ailments:

> *"Most of our campaigns were planned pre-integration, it was predominantly physical." (Celine, Cyan, occupational therapist)*

> *"...all the campaigns that we have done so far [have] been physically [orientated]...none of our campaigns actually shed light on how or what to do with regards to individuals who have [SRDs]." (Nash, Aqua, occupational therapist)*

Another therapist noted that substance abuse campaigns and screenings are in place:

> *"…some of the schools will ask us to do a campaign…we'll organise SANCA to join or other stakeholders…we do a lot of campaigns here at the clinic…we mostly screen in the clinic…questionnaires like the CAGE." (Axel, Emerald, occupational therapist)*

An additional occupational therapist noted that SRD screening is a standard duty and within their portfolio:

> *"We have to either run campaigns or we have to do screening…it is in the job description…so every [MHCU]…if it's a new referral, they have to have that screening done." (Bea, Aqua, occupational therapist)*

Campaigns and screenings are sometimes conducted in community spaces:

> *"We sometimes have campaigns…screening [for] mental conditions and also substance use…it was in a [shopping] complex." (Ava, Olive, occupational therapist)*

However, it was noted that some communities are too unsafe for campaigns:

> *"We don't go into the community anymore…really it's not safe." (Shiloh, Green, OTT)*

> *"Not all the areas are safe…there have been incidents in the past, so we don't want to risk that." (Betty, Lime, occupational therapist)*

Time constraints were noted as an issue for conducting SRD campaigns in communities:

> *"…we could, we just haven't had the opportunity. Our time is very scarce." (Sarah, Sage, occupational therapist)*

Theme 3: Barriers to service delivery

This theme is organised into three sub-themes and examines the challenges encountered by occupational therapists and other health practitioners in PHC settings, emphasising the impact of contextual barriers on service delivery. Axel, an occupational therapist at Emerald clinic, noted, "it's a bigger issue that needs more hands-on deck."

Sub-theme 3.1: The overloaded and under-resourced observation

It is well established that South Africa's public healthcare sector experiences high caseloads yet is significantly under-resourced. Understaffing seemed to be a common barrier:

> *"I would like to put emphasis on how short staffed all of the clinics are." (Nash, Aqua, occupational therapist)*

> *"We don't have an occupational therapist…the one at rehab is supposed to service this side once a once a week…he's quite busy." (Odette, Sage, clinical psychologist)*

It was observed that some facilities stopped group therapy due to barriers such as compliance difficulties, limited space and understaffing. The following details were reported:

> *"Groups weren't sustainable…non-compliance in mental health in the clinic when it comes to therapy is a bit high." (Bea, Aqua, occupational therapist)*

Another occupational therapist also noted the absence of a psychologist:

> *"…we don't have a psychologist." (Edward, Cyan and Pastel, occupational therapist)*

The registrar psychiatrist established the range of services within a week:

> *"Unfortunately, I'm at three different clinics, so it does become a little bit fragmented." (Tru, Emerald, registrar psychiatrist)*

The clinical psychologist noted the issue of high caseloads:

> *"Our waiting lists are crazy." (Odette, Sage, clinical psychologist)*

An occupational therapist complained about caseloads:

> *"…so many centres around here don't have occupational therapists, so we [are] expected to do outreaches to these places, but we can't because we have to see the patients here...you just end up working with what you have…you just don't have*

the resources to put certain structures in place" (Axel, Emerald, occupational therapist)

Health practitioners are unable to conduct the services they would like to execute:

"There's not enough occupational therapists at a primary health care level to do all these things that we really want to do." (Celine, Cyan, occupational therapist)

Understaffing also impacts services due to waiting times between appointments:

"…because of our waiting times, we're only seeing patients like every two months…it can be one month, it depends." (Sarah, Sage, occupational therapist)

Infrastructure is lacking since health practitioners share treatment spaces:

"Space is also a problem...the day when the psychologist is at another clinic…I will plan in a group or plan in a lot of patients." (Bea, Aqua, occupational therapist)

Additionally, it was observed that staff sometimes sought external support:

"Substance abuse then gets seen at an NGO…which is actually quite sad because it's a clinical issue." (Ulani, Green, counselling psychologist)

An occupational therapist expressed frustrations regarding SRD interventions:

"…feels like you're going in circles…it's a bigger issue that needs more hands-on deck…different spheres of people in power." (Axel, Emerald, occupational therapist)

In addition, access to rehabilitation services was observed as a challenge:

"We just have far too many people with substance use problems for the amount of services available." (Tru, Emerald, registrar psychiatrist)

"…what they can afford is always full." (Odette, Sage, clinical psychologist)

Sub-theme 3.2: Challenges regarding the integration of 'mental health' and 'physical rehabilitation' occupational therapists

The integration of roles previously held by mental health occupational therapists and physical rehabilitation occupational therapists has resulted in significant adjustments for practitioners. Additionally, due to occupational therapists only entering the mental health

space in public PHC settings in Gauteng in 2021, they are facing ongoing challenges with service user compliance:

> *"…our mental healthcare users were not receiving any occupational therapy services before…they don't really understand why they need to come for occupational therapy... it's still a struggle..." (Ava, Olive, occupational therapist)*

Odette, the clinical psychologist at Sage clinic, mentioned that she previously co-facilitated support groups for MHCUs with the former mental health occupational therapist. However, after the therapist's resignation, these groups ceased. In addition, despite the 2023 integration, some therapists continued to focus solely on one area. For instance, Nash, a former physical rehabilitation occupational therapist from Aqua Clinic, had no exposure to SRDs as he remained focused on physical rehabilitation. Another occupational therapist exclusively treated mental health patients:

> *"…no, I haven't been seeing any physical patients, it's just been psychiatric for now." (Bea, Aqua, occupational therapist)*

A former mental health occupational therapist reported her experience:

> *"...we ended up sort of almost taking most of the load on, and we were the only ones doing both physical and psych, while previous rehab occupational therapists were just doing what they were doing before." (Axel, Emerald, occupational therapist)*

Another therapist noted her experience regarding integration challenges:

> *"We are struggling to find a balance…by the time they integrated I was already booking months in advance, so it was a lot more difficult for me to find time to now go see mental health patients." (Celine, Cyan, occupational therapist).*

A different therapist experienced the integration positively, despite the challenges:

> *"It's been tough, but more than anything…it's just made me more adaptable…I truly understand now what it means when they say you have to be holistic as an occupational therapist." (Axel, Emerald, occupational therapist)*

Sub-theme 3.3: Lack of experience and poor collaboration efforts among the MDT

Some health practitioners, particularly those in internships or completing community service, are inexperienced and lack SRD management skills, which, coupled with poor collaboration within the MDT, further complicates service delivery. Bea, an occupational

therapist at Aqua clinic, notes that “treatment is very superficial,” when provided by newly trained therapists, further stating:

> *“…they don't have the knowledge on substance abuse and how to treat it in a community [setting]…it’s not really up to standard.”*

A different occupational therapist noted his university-based understanding of managing SRDs is limited:

> *“They usually only told us about leisure…I didn't know what to do…the social worker told me...” (Edward, Cyan and Pastel, occupational therapist)*

Another therapist noted her lack of experience:

> *“I don't have a lot of experience with substance use…I think those of us who still work in physical, [we] miss out on that.” (Betty, Lime, occupational therapist)*

MDTs lack understanding of each other’s roles and responsibilities, highlighting a gap in collaboration:

> *“I haven't collaborated with them…I would have never thought to refer a substance abuse patient to an occupational therapist…I’ve never referred an adult to them, I don't even know if they attend to adults…” (Ulani, Green, counselling psychologist)*

The social worker observed a similar assumption:

> *“I don't know exactly what they do…some of the patients' children, they are born with some behavioural issues because they were using drugs, so the occupational therapists will be very helpful on that one.” (Peter, Sage, social worker)*

Collaboration was limited to referrals:

> *“…we refer but we don’t work together in a collaborative way.” (Odette, Sage, clinical psychologist)*

> *“I work with the social worker…they usually give [service users] a referral to rehab.” (Edward, Cyan and Pastel, occupational therapist)*

Theme 4: Socioeconomic and contextual influences on substance use

Despite SRD interventions in clinics and CHCs, service users often return to environments that either contributed to or exacerbated their unhealthy substance use. Socioeconomic and

contextual factors, such as unemployment, poverty, and stress, play a significant role in perpetuating substance abuse. Axel, an occupational therapist at Emerald clinic, notes that service users “go back to the same environment," which leads health practitioners to feel hopeless due to frequent relapses. These contextual factors often create a sense of powerlessness among health practitioners, as they feel unable to control or mitigate the recurring challenges. Odette, a clinical psychologist at Sage clinic, reported:

> *“…you feel a bit hopeless and a bit helpless…there’s a lot going on out there that you feel like you’re not in control of.”*

An occupational therapist also noted feelings of helplessness, attributed to environmental barriers, despite providing numerous SRD interventions:

> *“They go back to the same environment and then they just relapse…sometimes you feel like you’re not doing enough.” (Axel, Emerald, occupational therapist)*

Another therapist observed high relapse rates despite the implementation of SRD interventions:

> *“You can counsel, but the chance of reoccurrence is high...you don't know where to start to stop it…but we do what we can.” (Betty, Lime, occupational therapist)*

Substances are readily available in communities:

> *“…they're also cheap, so a lot of our population resort to that because it's easy to access.” (Tru, Emerald, registrar psychiatrist)*

Additionally, after receiving interventions for SRDs, service users return to environments that lack occupational choices and opportunities:

> *“There's nothing that keeps people busy…that is why we end up smoking and doing things that are not healthy.” (Umar, Fern, service user)*

> *“It's those adverse social realities…lack of opportunities and employment…which makes people very vulnerable…they turn to substances as something to kind of fill up that vacuum.” (Odette, Sage, clinical psychologist)*

Furthermore, service users might return to households where they lack healthy role models:

> *“…a lot of kids now are also being raised by parents that are substance users.” (Axel, Emerald, occupational therapist)*

In addition, despite learning new coping strategies, they may still encounter stress due to unemployment:

> *"If people are not working…they drinking during the day…trying to relieve stress…they don't know they are adding more stress." (Shiloh, Green, OTT)*

A clinical psychologist identified substance use as a coping mechanism:

> *"…it's used as a way to escape." (Odette, Sage, clinical psychologist)*

Also, service users may relapse into substance use if they are unable to form healthy social connections in their environments. Service users noted their experiences of peer pressure:

> *"…my friends…that's how I got into substances." (Sipho, Fern, service user)*

> *"I was with my friends…I found them smoking weed, so they just told me to smoke with them, that was the first time I started." (Eli, Fern, service user)*

Moreover, outside of SRD interventions, community members are often misinformed about substances:

> *"Is weed a substance?" (Tilly, Sage, service user)*

> *"…when I need energy, I smoke weed and drink a coffee." (Eli, Fern, service user)*

An occupational therapist observed these misconceptions:

> *"…with cannabis being at the brink of being legalised, people think that it's good for you." (Axel, Emerald, occupational therapist)*

Theme 5: Service users' experiences with occupational therapy

This theme is organised into two sub-themes and explores service users' perceptions of and experiences with occupational therapy SRD interventions. The feedback received was largely positive, with Umar, a service user at Fern clinic, stating "so far I am in good hands".

Sub-theme 5.1: Occupational therapists as educators and facilitators

The service users who participated all emphasised the psychoeducational role of occupational therapists in providing information about substance use and its effects. Their reflections underscore the role of occupational therapists as educators:

"They taught us about…legal and illegal substances and how they affect us." (Sipho, Fern, service user)

A service user reflects on the occupational therapy group session:

"We were talking about illegal and legal substances…we did an activity…we decided to ask each other how…certain drugs affect us…like having hallucinations, delusions, seeing things that are not there, hearing voices." (Eli, Fern, service user)

Another service user referenced group activities and noted his role in achieving sobriety:

"I think they are [doing] a great job…it's only up to me now…but so far I am in good hands…they were telling us about the substances, how dangerous they are and what they do." (Umar, Fern, service user)

Additionally, Tilly, a service user at Sage Clinic, noted that occupational therapists assist individuals with daily struggles and equip them with tools for a healthier future. She highlighted how the former mental health occupational therapist helped her with a CV and facilitated her entry into a learnership. Another service user also mentioned learnerships:

"They have just introduced me to the learnership…that's what I like most." (Umar, Fern, service user)

Umar also noted that despite attending the gardening group, he returns to his community where *"there is no garden, there is nothing,"* highlighting environmental barriers.

Another service user pointed out that gardening groups are a common intervention:

"Last time when I came, we were also doing gardening…most of the time we are doing gardening here at 'Fern Clinic'." (Sipho, Fern, service user)

Sub-theme 5.2: Positive impact of occupational therapy interventions

All service users reported positive experiences with occupational therapists. Tilly, a Sage clinic service user, commended occupational therapists for their significant impact on her SRD journey, stating they were instrumental in her recovery. She highlighted the value of group therapy, explaining that her use of substances initially stemmed from a search for connection which she found in occupational therapy groups. Another service user also noted a positive social experience with groups:

"…it's good, because we meet other people, we can communicate, and we be free [sic]." (Sipho, Fern, service user)

In addition, Eli, a Fern Clinic service user, noted that a previous learnership had a positive impact on his life. Furthermore, Umar valued his occupational therapy sessions at the clinic and felt encouraged to adopt a healthier lifestyle. He shared his experience:

> *"It's been a positive one…it has taught me not to behave like I used to…I used to drink a lot and do things that will put me in danger but as soon as I started to come here, I'm able to avoid those things." (Umar, Fern, service user)*

Both Umar and Eli mentioned that the occupational therapist was the only health practitioner they consulted at the clinic. Umar noted that the therapist was encouraging:

> *"They are doing a great job…they tell you everything that will help you, and [harm] you. So, it's up to the person, like I said I am the problem not to stop [sic], but I wish to stop, because that's what they encourage." (Umar, Fern, service user)*

Eli also shared how the occupational therapist assisted him:

> *"…learning how to cope…the help from occupational therapy, it helps with the mind [sic]…the practical steps that I should take is like [participating] in sports, checking for job opportunities, and having people whom you can talk with, maybe other patients." (Eli, Fern, service user)*

Another service user expressed the following:

> *"If you could reach me and make such a difference, you can help others too" (Tilly, Sage, service user)*

Theme 6: Proposed solutions for improved SRD interventions

Service users and MDT members provided recommendations to enhance SRD interventions within clinics and CHCs. This theme consists of two sub-themes that highlight the need for greater efforts in health prevention, health promotion, and collaboration.

Sub-theme 6.1: Strengthen SRD prevention and promotion practices

Occupational therapists were encouraged to intensify their efforts in health promotion and SRD prevention. For instance, the implementation of educational campaigns focused on SRDs was recommended:

> *"…educating families, empowering teachers as well in terms of how to identify symptoms…how to refer into our system." (Odette, Sage, clinical psychologist)*

The counselling psychologist emphasised the need for enhanced psychoeducation:

> *"... programmes to psycho-educate people…information of how to access help…not only the patients, but also their families." (Ulani, Green, counselling psychologist)*

Service users recommended that occupational therapists increase their community presence, lead leisure and skills groups, educate about SRDs, and share information on available resources. Tilly, a Sage Clinic service user, suggested using educational materials like pamphlets and flyers. Other recommendations, such as job creation, address broader socioeconomic issues beyond the scope of occupational therapy:

> *"...give out job opportunities, making sure people are going back to school, and having other activities such as sports…social development." (Eli, Fern, service user)*

Another recommendation was to offer meaningful activities for constructive use of time:

> *"…help other youth like me, put them out from the street…create groups so that we can do something, anything…keep people busy." (Sipho, Fern, service user)*

A different service user also recommended offering more meaningful activities:

> *"…maybe going to the garden, exercising..." (Umar, Fern, service user)*

Sub-theme 6.2: Collaborate within and beyond

Increased collaboration among MDT members was recommended to strengthen the focus on SRD prevention and health promotion activities. Tru, a registrar psychiatrist at Emerald clinic, stated that collaboration on campaigns could contribute significantly to SRD prevention:

> *"…come together more as a multidisciplinary team and do more educational campaigns…if we can do preventative campaigns, we're going to limit the amount of morbidity associated with substance use." (Tru, Emerald, registrar psychiatrist)*

The counselling psychologist recommended increasing mutual education among the MDT:

> *"…psychoeducation within ourselves…having seminars maybe to take up topics that are really prevalent in South Africa." (Ulani, Green, counselling psychologist)*

It was also suggested that newly qualified therapists collaborate with senior therapists:

"At [Sage Clinic], there's only a comm serve occupational therapist…she's limited the cases on what she can actually see…there hasn't been a senior therapist there for a while…supervision is important." (Tru, Emerald, registrar psychiatrist)

DISCUSSION

The study explored occupational therapy interventions for SRDs in public PHC settings. It found that occupational therapists predominantly use interviews, the SLUMS, and various functional assessments as assessment tools. The most frequently addressed occupational domains were work, leisure, and education, with referrals to learnership programs being a common intervention strategy for service users. The study also uncovered several complexities that influence intervention choices. Challenges observed include underfunding, resource limitations, space constraints, staff shortages, and resulting backlogs, which have long impacted service delivery in South Africa.[2,15,28,29] Additionally, community environments that foster and normalise substance use pose a significant challenge and reflect a widespread issue in South Africa.[4,15] Social gatherings often involve substance use driven by the need for connection, which led three of four service users to engage in unhealthy substance use. However, they reported positive social engagement in occupational therapy groups and expressed a desire for more community-based groups, likely due to the opportunity to use their time constructively and due to the universality experienced in group settings, which is recognized as one of Yalom's curative factors in group therapy.[57] One service user stated, "it's not just me who struggles with substances."

The integration of mental health and physical rehabilitation occupational therapists led to issues such as the cessation of therapy groups at one clinic following a former mental health therapist's resignation. Other clinics experienced group cessation due to poor service user compliance and staff shortages. Nonetheless, some clinics and CHCs continue to offer valuable groups on topics such as insight into substance abuse, medication compliance, job skills, and gardening. Gardening groups, the most mentioned, are therapeutic as they promote constructive use of free time, target physical activity (IADL), develop performance skills such as social interaction and motor skills, and foster peer group participation and a sense of accomplishment.[33]

Humans are occupational beings with an innate desire to engage in various occupations to thrive, use time purposefully and find meaning in life.[58] When individuals cannot engage in necessary or desired occupations due to factors beyond their control, they experience occupational injustice, particularly occupational deprivation.[59] Service users often face such deprivation due to limited employment and leisure opportunities, leading to stress, boredom

and substance use. Professionals agree that individuals require opportunities in life, including job opportunities, to foster hope and prevent relapse.[22] Occupational therapy interventions in rehabilitation programmes often address work, leisure and social participation.[5] Similarly, at the clinics and CHCs, work, leisure, and education were identified as the primary focuses of SRD interventions, aimed at addressing issues related to high unemployment rates and limited healthy leisure opportunities. The *Prevention of and Treatment for Substance Use Disorders Policy (2023)* recommends that community-based programmes focus on reintegrating individuals into support services resembling the labour market.[2] Thus, education interventions aim to provide prevocational skills, refer service users to learnerships, and assist with job market entry. Learnerships were the most frequent therapy goal, with significant progress noted and gratitude expressed by service users. Occupational therapists also assisted with CV development and interview preparation, aligning with 'employment seeking and acquisition' under the occupation of work.[33] Additionally, economic occupations play a crucial role in driving real transformation within communities.[35] By addressing economic challenges, service users are empowered to choose and engage in meaningful occupations,[35] thereby enabling them to better meet their basic physiological and safety needs.[34] Furthermore, by focusing on work, occupational therapists indirectly address ADLs, IADLs, social participation, and health management.

Despite efforts to include leisure activities in SRD interventions—to improve quality of life and provide meaning and relaxation[6]—resource limitations often result in contextually irrelevant activities. For example, the occupational therapy department offers painting activities, despite many service users having no prior experience with painting and lacking access to painting supplies once they leave the clinic or CHC. Another example is an occupational therapist (Edward) reporting that, while many service users express a desire to engage in soccer, the clinic facilities lack the necessary space. Therefore, occupational therapists should collaborate with the Department of Sports, Arts and Culture to secure space for soccer, as this department is responsible for providing opportunities for healthy leisure activities in communities.[1]

Furthermore, existing literature links poor education, unemployment, poverty, and boredom to substance abuse, mental health challenges and overall poor health outcomes.[15,20,26,30,37,60,61] Participants (Odette, Ulani, Axel, Celine, and Bea) reported that service users often resort to substance abuse as a coping mechanism to escape challenging realities. The Ecology of Human Performance (EHP) framework notes that the interdependent relationship between individuals and their environment influences their occupational performance and behaviour.[62] Thus, service users in these communities who

abuse substances often exhibit limited performance range. Occupational therapists addressed this by implementing remediation interventions that promote healthy coping strategies and constructive use of free time, including sports and social activities.

Additionally, occupational therapists often act as intermediaries, facilitating access to vocational training programmes (learnerships), supporting return-to-work efforts, conducting functional assessments for South African Social Security Agency (SASSA) grant applications, and assisting in community reintegration. They also advocate for service users' admission to rehabilitation facilities, such as the South African National Council on Alcoholism and Drug Dependence (SANCA), through referrals and liaising with social workers. However, accessing public rehabilitation facilities is challenging,[1,2] with only 4.17% of those in treatment for SRDs in Africa receiving rehabilitation and aftercare services.[23] The limited availability of these services in South Africa[1,61] increases relapse risk[63] and persists despite objectives in the *Health Sector Drug Master Plan (2019-2025)* to improve access.[64] Participants (Tru, Odette, and Sadie) noted that long waiting periods between application and admission to rehabilitation facilities could lead to relapse or withdrawal from treatment,[63] suggesting that service users may become 'lost in the system' without timely intervention. Addressing this issue requires significant socioeconomic change and a vast expansion of services. The *NDMP (2019-2024)*[1] aims to tackle this by improving the availability and accessibility of treatment facilities, advocating for a multisectoral approach, and emphasising the need to prevent social marginalisation, promote non-stigmatising attitudes, encourage treatment-seeking behaviour, and expand local capacity in communities for prevention, treatment, recovery, and reintegration.[1]

However, despite expectations for adequate promotive and preventative measures,[20] these measures were found to be lacking for SRDs due to staff shortages and high caseloads, a widespread constant concern in South Africa.[2] While some occupational therapists focus on substance abuse campaigns, others prioritise physical ailments, especially those planned before integrating mental and physical rehabilitation roles. Insufficient SRD screenings were also observed, indicating a gap in early detection. This issue is also observed globally, with 20% of countries lacking or limiting screening programmes.[60] In addition, mental health is often undervalued compared to physical health,[15] and collaboration among MDT members remains minimal, despite the need for a collective approach to substance abuse as outlined in various policies and literature.[1,2,14,60,65] Some MDT members—a social worker and counselling psychologist—were unaware that occupational therapists work with adults and are involved in SRD interventions. This

highlights the need for psychoeducation regarding the roles and responsibilities within MDTs.

Furthermore, study participants (Tru and Ulani) observed that some clinics and CHCs, with only one occupational therapist, often restrict cases they are willing to handle based on diagnoses or age. The reasons for these restrictions are unclear but may stem from high caseloads or limited experience. Such limitations can exclude patients from occupational therapy and create confusion among MDT members regarding the scope of occupational therapy. A previous study also noted that MDT members often confuse occupational therapists with physiotherapists or other therapists,[10] indicating role overlap in PHC settings. In addition, inadequate SRD training, as highlighted by participants and the *Prevention of and Treatment for Substance Use Disorders Policy (2023),*[2] leads to poor or inappropriate interventions and underdiagnosis.[25,60] Thus, improved training on SRDs[2,60]—beginning at the university level to enhance curricula on SRD interventions, particularly within PHC settings—and ongoing supervision[31] for occupational therapists and other PHC practitioners have been suggested.

Moreover, the study found that occupational therapists provide holistic care through various interconnected interventions. They use some CBR strategies mentioned by the WHO,[37] such as improving self-esteem, creating healthy social networks, identifying community initiatives focused on income generation (such as learnerships offering stipends), coping skills and psychoeducation. This study also indicated that occupational therapists in PHC settings in the City of Johannesburg are viewed as non-judgemental health practitioners who help service users navigate their challenges and adopt healthy coping mechanisms.

In summary, human functioning is complex, involving multiple interrelated systems that should be considered as a whole, rather than as isolated aspects.[33,62] An individual's performance can be limited by contextual barriers,[61] many of which affect service users in rural communities, where environments are saturated with substances and opportunities are limited. Ultimately, occupational therapists working in PHC settings within the City of Johannesburg conduct client-centred interventions for SRDs, aiming to promote health and well-being through engagement in meaningful occupations. Frequently, their SRD interventions focus on work, leisure and education, with particular emphasis on prevocational training and facilitating referrals to learnerships. This emphasis is due to the recognition that unemployment and occupational deprivation are major contributors to substance use and abuse.

STUDY LIMITATIONS

The study was confronted with some limitations. Three of the four service users were from the same clinic, limiting diversity of perspectives. Some occupational therapists had limited experience with SRD interventions, affecting the depth of their responses. However, this is not an unusual situation in South Africa; many positions in public health care are occupied by individuals in community service or internships, meaning that many health practitioners are still gaining experience and learning.

RECOMMENDATIONS

Occupational therapy services in PHC settings

To address the identified gap in SRD interventions, the following is recommended:

- Add more group therapy to leverage positive user experiences and manage caseloads.
- Provide support groups for families of persons with SRDs.
- Continue self-development training to enhance knowledge and skills related to PHC services, with particular emphasis on mental health and substance abuse.
- Collaborate with the DSD, the Department of Sports, Arts and Culture and community support services to develop culturally relevant prevention programmes, including skills programmes and leisure opportunities in communities, as stipulated in the *NDMP (2019-2024).*[1] This will enable more collaborative, meaningful interventions on a larger scale.
- Ensure mental health services are prioritised and not compromised by the integration of mental health and physical rehabilitation roles. The initial establishment of mental health therapists in communities highlighted its importance[12], and this focus must be maintained.
- Conduct more campaigns and routine screenings for SRDs.

Multidisciplinary teams in PHC settings

- The MDT members, including the *Ward-based Primary Healthcare Outreach Teams* (WBPHCOTs), are encouraged to collaborate with the DSD to enhance screening efforts and increase SRD-focused campaigns, including psychoeducation and information on how to access help.

- Enhance interprofessional education by having team meetings to clearly define each practitioner's roles and responsibilities—utilising guidelines stipulated in the *NDMP (2019-2024)*[1] and the *Prevention of and Treatment for Substance Use Disorders Policy (2023)*[2]—thereby educating one another, reducing the risk of service duplication, and ensuring that health prevention and promotion strategies are effectively implemented at each clinic and CHC.

- Participants, and the *Prevention of and Treatment for Substance Use Disorders Policy (2023),*[2] recommend ongoing training for all health practitioners who deal with substance abuse.

Occupational therapy curricula at universities

The study found insufficient SRD training for occupational therapists, particularly those who are newly qualified. Recommendations include:

- Review occupational therapy curricula to include a stronger focus on SRD interventions—as recommended in the *Health Sector Drug Master Plan (2019-2025)* for all training institutions[64]—as it was noted that university curricula heavily emphasise leisure activities for SRD interventions, while neglecting the broader spectrum of these interventions. Utilising governmental policies and legislation as guidelines for curriculum development may be beneficial.

- Increase students' exposure to mental health and SRDs to better prepare them for their community service year, where they are likely to encounter substance-related cases, especially if placed in PHC settings.

Gauteng Department of Health

The study identified a severe lack of resources in clinics and CHCs affecting service delivery. With assistance from key role-players such as the National Department of Health and the Department of Social Development (DSD), recommendations include the following:

- Allocate additional funds to the PHC sector to enhance infrastructure and resources. Additional funding will allow for the implementation of the goals stipulated in *NDMP (2019-2024)*[1] and the *Prevention of and Treatment for Substance Use Disorders Policy (2023)*.[2]

- Increasing budget alone is insufficient, thus, deliberate considerations for improved healthcare quality and quantity are required, including hiring more health practitioners to manage high caseloads—which all health practitioners in this study stated—and implement community-based programmes.

- Ensure that each clinic and CHC has a complete MDT to provide consistent, holistic healthcare. Currently, some facilities rely on health practitioners from other clinics and CHCs for services only a few times a week, which results in inconsistent care. Strengthening human resources to address substance abuse is a strategic goal outlined in the *Health Sector Drug Master Plan (2019-2025)*.[64]

- Each clinic and CHC should employ a senior occupational therapist to provide additional supervision and guidance to newly qualified occupational therapists. This support is crucial for enhancing their confidence and effectiveness in providing interventions. Additionally, the *Prevention of and Treatment for Substance Use Disorders Policy (2023)*[2] recommends ongoing supervision for all health practitioners who manage substance abuse.

CONCLUSION

The study examined SRD interventions by occupational therapists in the public PHC sector within the City of Johannesburg through interviews with occupational therapists, MDT members and service users. Despite the complexities related to substance abuse, community environments, and the public healthcare system, occupational therapists significantly aid individuals with SRDs by establishing coping skills and healthy behaviours. Their interventions primarily focus on occupational performance areas such as work, leisure and education, with notable emphasis on learnership referrals. The study also highlights the need for enhanced collaboration among MDT members and for improved health promotion and prevention efforts, including increased screenings and targeted SRD campaigns. Service users generally perceive occupational therapists positively, particularly valuing the meaningful social interactions experienced in group therapy sessions.

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COMPETING INTERESTS:

The author declares no conflicts of interest.

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CHAPTER THREE:
SYNTHESIS

3.1 Introduction

There has been no prior literature on the general exploration of SRD interventions used by occupational therapists in public PHC settings within the City of Johannesburg, South Africa. Therefore, this study aimed to close this gap. This chapter presents the study outcomes in relation to the study objectives. Additionally, it provides recommendations and discusses the study's significance, limitations and dissemination strategy.

3.2 Overview of study outcomes

The findings provide insights into occupational therapy SRD interventions within the public PHC sector, as described in previous chapters. They capture perspectives from occupational therapists, MDT members, and service users, providing a detailed view of how these interventions are experienced. Additionally, the findings reveal that although occupational therapists in public clinics and CHCs in the City of Johannesburg implement various SRD interventions, they face several challenges. These include poor user compliance, high relapse rates due to a number of reasons, including community environments that facilitate substance use, an overloaded and underfunded healthcare system, difficulties in integrating mental health and physical rehabilitation occupational therapists, poor MDT collaboration, and inadequate SRD training. Table IX presents the findings of the study in relation to each objective.

Table IX: Overview of key findings

Study Objectives	Key findings	Location in the thesis:
1. To explore the intervention programmes used by occupational therapists in the City of Johannesburg district in the public primary health care sector when treating substance-related disorders from the perspectives of occupational therapists.	- Interviews and SLUMS are often used as assessment tools. - Despite limited MDT collaboration, occupational therapists often conduct functional assessments with referred MHCUs. - Campaigns focusing on substance abuse are insufficient, as many campaigns rather focus on physical ailments. - Screenings for SRDs are very limited. - Group sessions are conducted minimally or not at all due to poor user compliance, time constraints and understaffing. However, when they do occur, gardening is the most common group activity. - Work, leisure and education are the main occupations addressed. - Referring MHCUs to learnerships is very common. - Establishing coping skills is frequently done too. - Not all occupational therapists treat mental health patients, even with integration efforts. - Community engagement is very limited, and there is a lack of knowledge about community support services by the occupational therapists. - Due to limited resources, some leisure activities, such as painting, are culturally inappropriate and contextually irrelevant.	Themes 1-4 in results section + discussion (Chapter 2: (manuscript)
2. To explore the intervention programmes used by occupational therapists in the City of Johannesburg district in the public primary health care sector when treating substance-related disorders from the perspectives of service users.	Service users perceived occupational therapists as practitioners who: - educate about substance abuse and its effects - conduct group sessions - encourage healthy behaviours - provide coping skills - refer to learnerships	Theme 5 in results section + discussion (Chapter 2: (manuscript)

3. To describe the experiences of service users who receive intervention for substance-related disorders by occupational therapists in the public primary health care sector in the City of Johannesburg district in Gauteng.	Service users experience occupational therapy SRD interventions positively due to: - referrals to learnerships - therapy groups providing a healthy and safe environment for social engagement and learning coping skills - instruction on coping strategies - opportunities to socialise in a supportive group setting	
4. To provide recommendations by service users and Department of Health key stakeholders for possible strategies for occupational therapy substance-related disorder interventions in the City of Johannesburg district in the public primary health care sector.	Service users and MDT members suggest the following: - more SRD campaigns - increased screenings - more group therapy - expand psychoeducation in schools - share information within communities on how to access support services - conduct groups, such as leisure, in community settings - improved collaboration among MDT members - improved intersectoral collaboration - additional SRD training and supervision for newly qualified occupational therapists - university curricula should be reviewed to include a broader range of SRD interventions - more resources, space and staff are needed	Theme 6 in results section + discussion (Chapter 2: (manuscript)

3.3 Recommendations

Occupational therapy services in PHC settings (clinics and CHCs)

SRD interventions need to be prioritised. Therefore, the following is recommended:

More campaigns: Occupational therapists should conduct additional campaigns and screenings for SRDs. These initiatives could be held at various community organisations (e.g., faith-based organisations, NGO's, NPO's), shopping centres, clinics, CHCs, or schools. Radio campaigns may also be used to reach broader audiences.

Group therapy: Since service users reported a supportive and positive experience with occupational therapy groups, it is recommended that all occupational therapists at clinics and CHCs incorporate group therapy into their services. This could also potentially lighten caseloads, as it allows occupational therapists to engage with multiple service users simultaneously.

Self-development: Occupational therapists should also continue self-development training to enhance knowledge and skills related to PHC services, with particular emphasis on mental health and substance abuse. Ensuring mental health services are prioritised and not compromised by the integration of mental health and physical rehabilitation roles is crucial, as the initial establishment of mental health therapists in communities highlighted its importance (Robertson *et al*., 2021) and this focus must be maintained.

Improve MDT collaboration: The study revealed minimal collaboration among MDT members, resulting in limited awareness of the full range of occupational therapy services. Therefore, it is recommended that occupational therapists enhance their collaborative efforts within the MDT and actively inform other MDT members about the services they provide. This will likely improve MDT relationships, positively impact referral processes, and ultimately benefit service users.

Intersectoral collaboration: Furthermore, the study found that communities severely lack healthy occupational choices, such as leisure opportunities, which contributes to substance use. Therefore, it is recommended that occupational therapists collaborate with the DSD, the Department of Sports, Arts and Culture and community support services to develop culturally relevant prevention programmes, including skills programmes and leisure opportunities in communities, as stipulated

in the *NDMP (2019-2024)* (DSD, 2019). This will enable more collaborative, meaningful interventions on a larger scale. Given that occupational therapists currently have limited awareness of available community support services, it is also recommended that they make deliberate efforts to understand the broader context outside of clinics and CHCs. Forming partnerships with support services and community programmes will enable more holistic and supportive interventions.

Multidisciplinary teams in PHC settings

It is recommended that members of the MDT collaborate with the DSD to enhance screening efforts and increase SRD-focused campaigns, including psychoeducation and information on how to access help. In addition, MDT members should enhance interprofessional education by having team meetings to clearly define each practitioner's roles and responsibilities—utilising guidelines stipulated in the *NDMP (2019-2024)* (DSD, 2019) and the *Prevention of and Treatment for Substance Use Disorders Policy (2023)* (DSD, 2023)—thereby educating one another, reducing the risk of service duplication, and ensuring that health prevention and promotion strategies are effectively implemented at each clinic and CHC. Participants, and the *Prevention of and Treatment for Substance Use Disorders Policy (2023)* (DSD, 2023) also recommend ongoing training for all health practitioners who deal with substance abuse.

Occupational therapy curricula at universities

The study identified a lack of training in SRD interventions among occupational therapists, particularly newly qualified therapists. Therefore, it is recommended that curricula be reviewed to include a stronger focus on SRD interventions—as recommended in the *Health Sector Drug Master Plan (2019-2025)* (DoH, 2019) for all training institutions—as it was noted that university curricula heavily emphasise leisure activities for SRD interventions, while neglecting the broader spectrum of these interventions. Utilising governmental policies and legislation as guidelines for curriculum development may be beneficial.

Furthermore, occupational therapy students should receive increased exposure to mental health, particularly SRDs, as many will work in the public PHC sector during their community service year and are likely to encounter various substance-related cases. Enhanced training in these areas will better prepare occupational therapists for their future roles.

Gauteng Department of Health

The study identified a severe lack of resources in clinics and CHCs affecting service delivery. Assistance from key role-players such as the National Department of Health and the Department of Social Development is required. Therefore, it is recommended that additional budget be allocated to PHC services to enhance infrastructure, resources and staffing. Allocate more funds to the PHC sector to enhance infrastructure and resources. Additional funding will allow for the implementation of the goals stipulated in *NDMP (2019-2024)* and the *2023 Prevention of and Treatment for Substance Use Disorders Policy* (DSD, 2019; 2023).

Increasing the budget alone is insufficient; deliberate actions must also be taken to improve the quality and quantity of healthcare in communities. Actions include hiring more health practitioners to manage high caseloads—which all health practitioners in this study stated—and implementing community-based programmes. As not all clinics and CHCs have full MDTs, some facilities currently rely on health practitioners from other clinics and CHCs for services only a few times a week, which results in inconsistent care. Ensuring that each clinic and CHC has a complete MDT would enhance the holistic and consistent delivery of healthcare services and strengthening human resources to address substance abuse is a strategic goal outlined in the *Health Sector Drug Master Plan (2019-2025)* (DSD, 2019). Furthermore, each clinic and CHC should employ a senior occupational therapist to provide additional supervision and guidance to newly qualified occupational therapists. This support is crucial for enhancing their confidence and effectiveness in providing interventions. In addition, the *Prevention of and Treatment for Substance Use Disorders Policy (2023)* recommends ongoing supervision for all health practitioners who manage substance abuse (DSD, 2023).

Future research

The researcher recommends the following areas for future research:

- Conduct a quantitative follow-up study to determine how many occupational therapists in the public PHC sector are utilising the interventions mentioned in this study; how often, profile of therapists, and for which profile of service users.
- Conduct a qualitative study similar to this study, but include external stakeholders to explore how occupational therapists can build better partnerships with community support services, such as community programmes.

- Conduct similar studies throughout South Africa or other districts to obtain a comprehensive view of SRD interventions provided by occupational therapists in public PHC settings across the country.
- Investigate the experiences and recommendations of family members or caregivers of service users regarding occupational therapy interventions, to identify how occupational therapists can better assist these individuals.

3.4 Significance of study

South Africa faces major substance abuse challenges. This study identified the 'groundwork' (foundational work) that occupational therapists are undertaking within the public PHC sector in the City of Johannesburg for this issue. The study identifies a need for more focused SRD interventions, especially in prevention and promotion, and improved MDT collaboration. Recommendations help occupational therapists understand common interventions and advocate for additional occupational therapy positions in the PHC sector. The findings demonstrate the deficiencies in SRD training within their curricula, which was identified as a major barrier to effective interventions. Additionally, the study offers insights into service users' needs and experiences, bridging gaps in South African literature regarding occupational therapy SRD interventions in public PHC settings. It serves as a basis for future research and potential changes in SRD interventions, whether through clinical practice or policy developments.

3.5 Dissemination of findings

The data collected was for the purpose of the researcher's Master of Occupational Therapy degree. The findings of the study will be published in a South African accredited journal to maximise benefits and easy access for the occupational therapy profession, SRD interventions, occupational therapy university curricula, and healthcare systems. The researcher will also provide direct feedback to the city of Johannesburg municipality, the National Health Research Database (NHRD), the Johannesburg DRC, the participants who expressed in receiving the findings and consented to email communication, as well as the clinics and CHCs at which the study was performed. This feedback will be delivered via email in the form of a summarised report. This approach will ensure that facilities receive relevant recommendations from the study regarding occupational therapy intervention for SRDs and contribute to the advancement of the occupational therapy profession.

3.6 Limitations of study

The study faced some limitations. Three of the four service users were from the same clinic, limiting diversity of perspectives. Some occupational therapists had limited experience with SRD interventions, impacting response depth. However, this is not an unusual situation; many positions in public health care are occupied by individuals in community service or internships, meaning that many health practitioners are still gaining experience and learning.

3.7 Conclusion

In conclusion, this study delved into the SRD interventions utilised by occupational therapists within the public PHC sector in the City of Johannesburg. Challenges to the quality and quantity of interventions include community environments that facilitate substance use and limitations inherent in public PHC settings, such as underfunding, a lack of resources, space constraints, staff shortages, and associated backlogs. Despite these challenges, occupational therapists are positively perceived by service users, who especially value the meaningful social interactions provided through group settings. Furthermore, the focus of occupational therapy SRD interventions on occupational performance areas such as work, leisure and education, and the referral of service users to learnerships, is impactful to the lives of people with SRDs. However, the study highlights a need for more emphasis on health promotion and prevention, advocating for increased screenings and SRD-related campaigns.

Ultimately, while the issues of substance abuse, challenging community environments, and limitations within the public healthcare system are complex, occupational therapists play a crucial role. They help individuals who experience SRDs to develop essential coping skills and adopt healthier behaviours, making a significant difference in their lives.

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ANNEXURES

ANNEXURE A: Interview schedule for occupational therapists

1. How old are you?
2. What gender do you associate with?
3. What race do you identify with?
4. How long have you been working as an occupational therapist?
    - Of that time, how long have you been working in public primary health care?
5. What does a typical day look like for an occupational therapist working at this clinic / community health centre?
6. What type of occupational therapy intervention do you most often provide at this clinic / community health centre? (i.e. what diagnoses / disorders are most commonly seen by you?)
7. Are you of the opinion that substance abuse intervention should be a top priority in primary health care? Elaborate.
8. Do you think there is strong link between mental illness and substance-related disorders? Elaborate.
9. South Africa is one of the top 10 substance abusing countries in the world.
    - Why do you think that is?
    - How does it make you feel?
10. What do you think the role of an occupational therapist is for substance-related disorders (intervention)?
11. Do you think this area has a substance abuse problem?
    - If yes, why do you say that?
    - If no, why do you say that?
12. Who provides intervention for clients who suffer with substance-related disorders (in this area)?
13. How often do you see patients with substance-related disorders?
14. How often do you treat these substance-related disorders?
15. What substance-related disorder interventions do you provide? Elaborate.
    - What guides your choice of the type of intervention?
16. Do you involve yourself in community programmes (e.g. education on diagnoses, prevention programmes for substance-related disorders)?

- If yes, please tell me about the programmes you're involved in.
- If no, is there a reason you don't involve yourself in community programmes?

17. Do you ever go into the community to screen for problematic substance use?
    - If yes, explain the process to me.
    - If no, why not?

18. Would you like to treat substance-related disorders more often?

    - If yes, what substance-related disorder interventions would you like to do, if you had time and resources?
    - If no, what's the reason for not wanting to provide SRD treatment?

19. Do you believe that occupational therapists can make a positive impact on the major substance abuse problem in our country?

    - If yes, how?
    - If no, why do you say that?

20. You have identified various barriers to SRD interventions, what do you think needs to happen/change to overcome these barriers?
21. If the clinic had more staff and resources, how would your interventions be different? (i.e. would they change? if so, how?)

ANNEXURE B: Interview schedule for service users

1. How old are you?
2. What race do you identify with?
3. What gender do you identify with?
4. South Africa is one of the top 10 substance abusing countries in the world.
    - Why do you think that is?
    - How does it make you feel?

5. How do you think South Africa can deal with the substance abuse problem?
6. Do you think substance abuse should be treated in the clinics / community health centres, or only in bigger hospitals?
7. Do you think there is strong connection between mental illness and substance abuse? Explain.
8. Do you think this area has a substance abuse problem?
    - If yes, why do you say that?
    - If no, why do you say that?
9. Who helps people who suffer from substance abuse in this area?
10. Do you currently use substances (i.e. drugs or alcohol)?

    - If yes, what substances?
    - If no, when did you stop using?

11. How long did you use / have been using the substance?

    - Why did you start using it?

12. Do you think your substance use is a problem? (i.e. does it cause you harm?)

    - If yes, why?
    - If no, explain.

13. When do you think using substances becomes a problem? (if ever)
14. Who helps you stay sober? (i.e. who helps you stay off drugs?)
15. Does your community have any programmes / organisations that help you with your substance abuse problem?
16. Did you ever receive treatment for your substance abuse problem?

    - If yes, from who, and was it helpful?

- If no, why?

17. What treatment do you still receive for substance abuse?

    - Do you find it helpful? Explain.

18. What treatment would you like to receive? Why?
19. Do you know what occupational therapists do?

    - What do they help you with?
    - Did / Do they help you with your substance abuse problem?

        - If yes, explain what they do for your substance abuse problem, and was it helpful?
        - If no, why do you think they don't help you with your substance abuse problem?

20. Do you think occupational therapists can do more for you / support you more?
    - How?
21. What has been your experience with occupational therapists in the past?

22. Do you believe that occupational therapists can make a positive impact on the major substance abuse problem in our country?

    - If yes, how?
    - If no, why do you say that?

23. If the clinic had more staff and resources, what would you want treatment to look like for SRDs? Would you want anything extra? Do you think occupational therapists can make a bigger impact?

ANNEXURE C: Interview schedule for MDT members

1. How old are you?
2. What gender do you associate with?
3. What race do you identify with?
4. What is your job title?
5. How long have you been working in public primary health care?
6. South Africa is one of the top 10 substance abusing countries in the world.
    - Why do you think that is?
    - How does it make you feel?
7. Are you of the opinion that substance abuse intervention should be a top priority in primary health care? Elaborate.
8. Do you think there is strong link between mental illness and substance abuse? Elaborate.
9. Do you think this area has a substance abuse problem?
    - If yes, why do you say that?
    - If no, why do you say that?
10. Who provides intervention for clients who suffer from substance abuse (in this area)?
11. Do you ever treat substance abuse patients?
    - If yes, what do you do for them?
    - If no, what type of patients do you treat?

12. Do you work with occupational therapists?

    - If yes, how do you work together?

13. Do you know what occupational therapists do? Elaborate.
14. Do you think occupational therapists have a role to play in substance abuse intervention?

    - If yes, what is their role?
    - If no, why is that?

15. Do you know if the occupational therapists at this clinic / community health centre provide substance abuse interventions?

    - If you do know, what type of treatment do they provide?

16. What substance abuse interventions do you recommend occupational therapists provide to those suffering from substance abuse? (i.e. how can they help patients suffering from substance abuse?)
17. What barriers do you think public primary healthcare faces when dealing with substance abuse interventions?

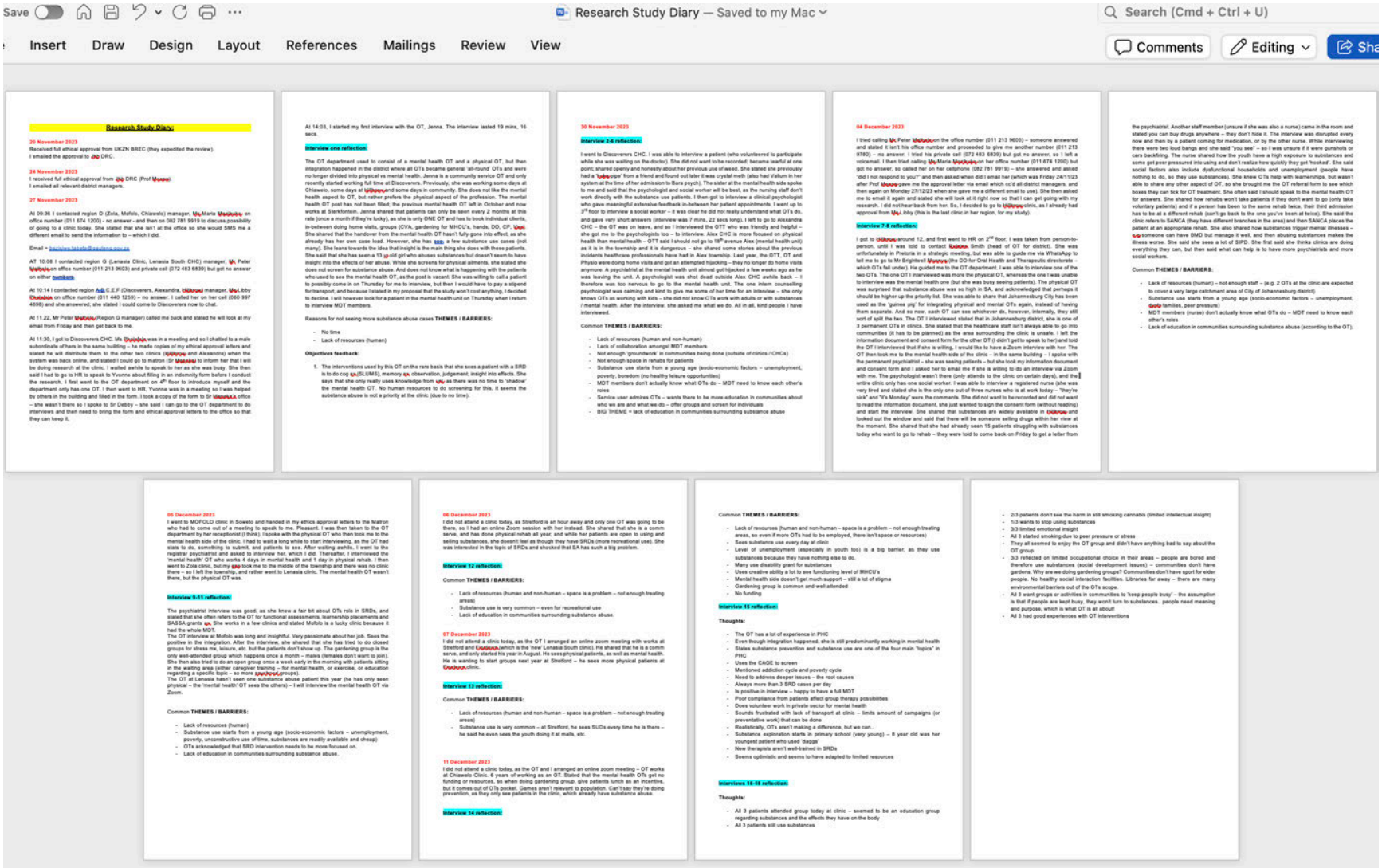
    - If any, how can we as a country overcome these barriers?

18. Do you believe that occupational therapists can make a positive impact on the major substance abuse problem in our country?

    - If yes, how?
    - If no, why do you say that?

19. If the clinic had more staff and resources, what do you think SRD interventions would look like? (i.e. would they change? if so, how?)

ANNEXURE D: Reflexive journal screenshot



ANNEXURE E: Reflexive statement

The researcher was part of a research group in university who conducted a study with the title ‘Occupational therapy and substance abuse intervention in South Africa'. The study focused on occupational therapists in general, and did not separate the public sector from the private sector. The study found that although occupational therapists used some evidence-based interventions, relapse prevention was not a main focus, which was found in this study too.

After university, the researcher worked as a community service occupational therapist in 2022 in the City of Johannesburg District, at Chris Hani Baragwanath Academic Hospital (CHBAH). The researcher worked in the psychiatric wards for the first six months, and found that majority of admitted Mental Health Care Users (MHCU’s) had comorbid SRDs. The researcher also observed that many (not all) of the MHCU’s would receive treatment for their mental illness in the psychiatric wards, but would then be discharged once they’re medically stable, without going to a rehabilitation centre for the comorbid SRD. The few MHCU’s that expressed the desire to go to a rehabilitation centre for their SRD would, more times than not, be placed on a waiting list due to the public rehabilitation centres available being at maximum capacity (these patients did not have the funds to receive treatment at a private rehabilitation centre). Many of the MHCU’s would then be readmitted to the psychiatric ward a few months after their original discharge, as they return to substance use and abuse when they’re back in their environment, and therefore stop taking their medication for their mental illness, causing them to relapse.

With passion for mental health, the researcher was motivated to conduct a study in an attempt to find out what ‘groundwork’ is being done within the communities regarding the problem of substance use and abuse, as it majorly impacts the numbers of MHCU’s in psychiatric wards that relapse. The experience at CHBAH made the researcher feel that mental health and substance-related disorders were not being prioritized at ground level. The researcher already had an idea of the barriers in public healthcare settings, and knew that these would affect services in some way. The researcher is still of the opinion that mental health is not prioritised, as this study revealed that campaigns and screenings often focus on physical ailments. Given the numerous barriers in PHC settings, including high caseloads and the need to address various ailments, substance abuse is often overlooked amid other pressing health issues.

ANNEXURE F: Codebook: a priori codes

HYBRID APPROACH: Deductive analysis
I'm creating codes beforehand from research questions, already having an idea of what participants said in the interviews, literature, and experience.

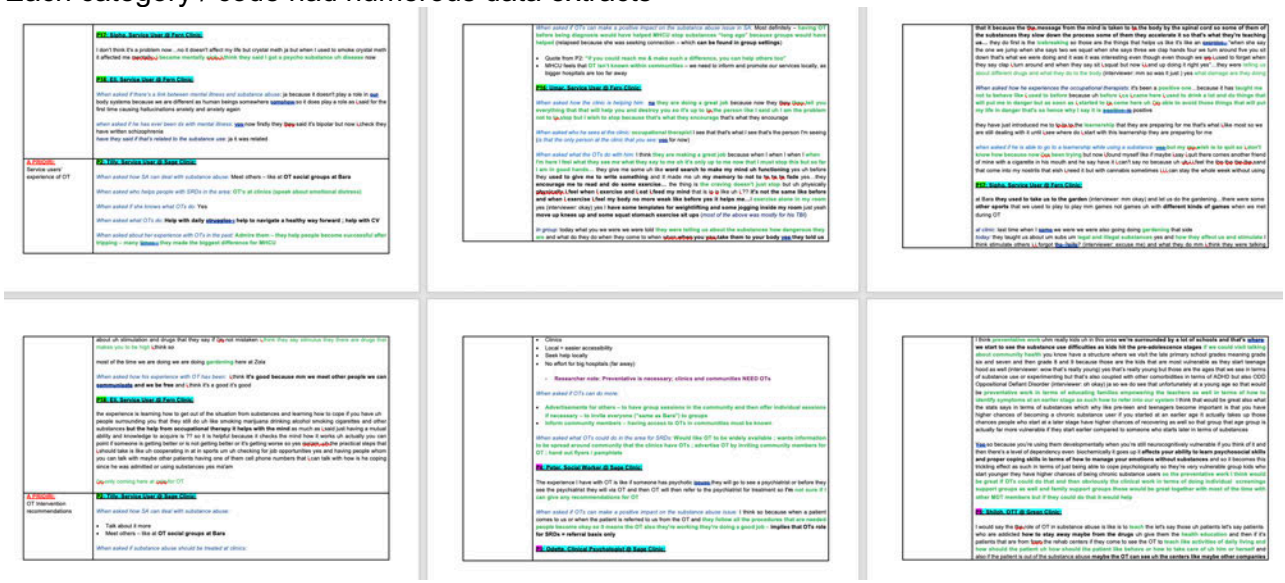
"The next stage involves creating a priori codes based on the research aims and research questions, including interview questions" (Swain, 2018).

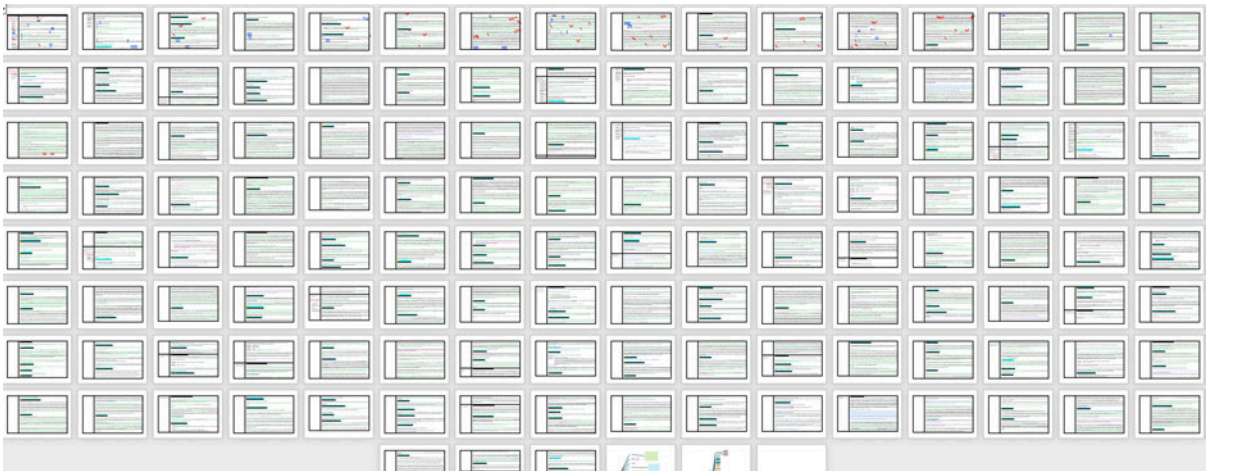
IDEAS from RESEARCH QUESTION, RESEARCH AIMS, INTERVIEW QUESTIONS	A PRIORI CODES (categories)
Interventions OTs do for SRDs (objective 1) + Interventions OTs wish they could do for SRDs Literature: The aspects they assess and treat include activities of daily living, instrumental activities of daily living, rest and sleep, education, work, play, leisure and recreation, and social participation (AOTA, 2014). Literature highlights that the occupations of work, leisure and recreation, and social participation are the most commonly addressed in treatment. Also, occupational therapists consider the client's performance patterns, cognition, motivation, and other bodily functions to ensure holistic intervention (Crouch and Wegner, 2014). Is mental health focused on by OTs in clinics?	OT SRD interventions
Literature: Cruz (2019) found that many people who suffer from SRDs have a desire and need to engage in meaningful leisure activities, therefore recreational programmes in communities will be ideal. Communities don't have healthy leisure opportunities	Leisure
Literature: Group therapy is effective because occupational therapists can employ therapeutic factors such as installation of hope, universality, developing social skills, imparting information, interpersonal learning and altruism to encourage change (Yalom, 1975).	Group therapy
Limited staff prevents OTs from doing more for SRDs Barriers to dealing with SRD interventions in PHC	Barriers in PHC
Substances are widely & readily available in communities + exposure to substances starts from a young age + Is there a substance abuse issue in the City of Johannesburg communities?	Availability of substances
Do communities have programmes / organizations for SRDs + Is substance abuse screening being done Literature:	Community programmes

Prevention programmes in communities are also crucial to raise awareness about the harmful effects of substances (Crouch and Wegner, 2014).	
Unemployment is a major cause of SRDs (boredom) + difficult family systems lead to substance abuse + Possible reasons why SA is one of the top 10 substance abusing countries in the world Literature: Mpanza (2014) performed research in Northern KwaZulu-Natal, and found that communities lack occupational choices and community members are experiencing boredom, and therefore turn to substance use. Rural occupational therapists therefore have a part to play in creating healthy occupational choices for community members.	Causes of substance abuse in communities
MDT members lack knowledge on the scope of OT + SRD interventions require a more collaborative approach	Collaboration between MDT
There is a very close link between mental illness and substance abuse	Link between mental illness & substance abuse
Perspective of OT interventions for SRDs from service users (objective 2) + Experiences of OT interventions for SRDs from service users (objective 3)	Service users' experience of OT
Recommendations for OTs from service users and MDT members (objective 4)	OT Intervention recommendations

ANNEXURE G: Organising data into categories

Each category / code had numerous data extracts





ANNEXURE H: Original codes, subthemes, themes and data extracts

Theme 1: Socioeconomic factors of communities contribute to substance abuse

DATA EXTRACTS	A PRIORI & *POSTERIORI* CODES	SUB-THEMES	THEME
"home environments" and "environmental stressors" "having accessibility" "that's just how it is" "peer pressure" and "trying to fit in" "gang-related problems" "boredom" and "unconstructive use of free time" "poverty" and "unemployment" "adverse social realities" "coping mechanism" and "relieve stress" "socio-economic problems" "don't have role models" "poor education" "minimal opportunities" "easily available"	Causes of substance abuse in communities and availability of substances	Substances are easily accessible in social contexts	**Socioeconomic factors of communities contribute to substance use**
		Occupational deprivation and unemployment lead to boredom and stress	
"conflict in the family" "there is no garden there is nothing" "a lot of people they are battling" "they used to be occupied" "centers…they've been closed" "neurocognitively vulnerable"	*COVID-19 impact*	Substances are used as a coping mechanism	
"is weed a substance" "they don't even know what they're doing" "relieve stress" "don't understand the dangers of substance abuse" "misconception" "need more and then they crave more" "when i need energy i smoke weed" "lack of information in the society"	*Service users' knowledge of substances*	Misinformation regarding substances	

Theme two: Public primary healthcare services encounter multifaceted barriers

DATA EXTRACTS	A PRIORI & *POSTERIORI* CODES	SUB-THEMES	THEME
"our time is very scarce" " we don't have an OT" "our caseload it's quite high" "waiting lists are crazy" "government should get more staff" "there's very limited resources" "we're understaffed" "stock outages" "there's not enough OTs at a primary healthcare level" "we don't have a psychologist" "space is also a problem"	Barriers in PHC	The public PHC sector is overloaded and under-resourced	**Public primary healthcare services encounter multifaceted barriers**
"lack of resources" "we haven't done screening" "it's not safe" "we do a lot of campaigns here at the clinic" "we should be going out more into the community" "we have never reached out"	Programmes *and screenings*	The reality of SRD screenings and campaigns	
"it's just not enough support services" "not have enough rehab centers" "no beds available" "isn't enough capacity" "don't have the funds" "struggle with limited resources" "they do give them that support but it's limited"	*Accessibility to rehabs*	Access to rehabilitation facilities comes with challenges	

Theme three: The experience of SRD Interventions is challenging for health care practitioners

DATA EXTRACTS	A PRIORI & *POSTERIORI* CODES	SUB-THEMES	THEME
"mental health OTs were not here for as long as physical" "lost a lot of OTs" "been a very big, positive impact" "struggling to find a balance"	*Integration*	Challenges regarding the integration of 'mental health' occupational therapists and 'physical rehabilitation' occupational therapists	**The experience of SRD Interventions is challenging for health care practitioners**
"I can fit in anywhere when it comes to OT" "I don't believe in compartmentalizing" "I don't like mental health, it's not my interest"	*Attitude of Occupational Therapists*		
"I don't know exactly what they do" "there's no collaboration" "I've never made a referral for an adult to an OT"	Collaborative efforts	Lack of experience and poor collaboration efforts among the MDT	
"more people should be trained" "I don't have a lot of experience with substance use" "treatment is very superficial" "they only told us about leisure"	*Health practitioners require more training in substance abuse*		
"they go back to the same environment" "you almost feel like helpless" "almost feels like you're going in circles" "it's a bigger issue that needs more hands on deck" "I'm emotionally drained" "you don't know where to start"	*Healthcare practitioners' feelings of helplessness*	High relapse rates contribute to health care practitioners' feelings of helplessness	
"they just relapse you know" "it's a serious illness" "there is ongoing patterns of relapse due to substances" "they don't really come back to the system" "very vulnerable to using substances again" "chance of reoccurrence is high" "they just non-compliant" "all the groups were poor compliance"	*Compliance difficulties*		

Theme four: An overview of the diverse SRD interventions provided by occupational therapists

DATA EXTRACTS	A PRIORI & *POSTERIORI* CODES	SUB-THEMES	THEME
"we usually use SLUMS" "functional assessment" "we do need some family input" "community-based rehabilitation" "more prevention" "creative ability" "being the educator" "health talks is a big one" "awareness campaigns" "I'm looking at a lot more ADLs" "constructive leisure activities" "giving them tools to cope or aiding them in situations where they might find it difficult to say no to substances" "help the person find new spaces and new environments to exist in" "looking at their social participation" "what are they doing with their time" "protecting the family" "maybe they just want to be able to get a goodnights sleep" "following up on insight" "job-seeking skills" "a lot of it's to do with VOC" "learnerships and CVs" "VOC group" "run a gardening group"	Overview of occupational therapy SRD interventions	The occupational therapy SRD interventions as outlined by the occupational therapists themselves	**An overview of the diverse SRD interventions provided by occupational therapists**
"if you could reach me & make such a difference, you can help others too" "they are doing a great job" "I am in good hands" "it's good"	Service users' experience of OT	Service users experience occupational therapy SRD interventions positively	

"the help from occupational therapy it helps with the mind"			

Theme five: Recommendations for occupational therapists

DATA EXTRACTS	A PRIORI & *POSTERIORI* CODES	SUB-THEMES	THEME
"more OTs like in different places" "preventative work" "start outreaches" "educating families" "support groups" "more educational campaigns" "prevention is better than cure" "better campaigns"	OT intervention recommendations	Strengthen SRD prevention and promotion practices	**Recommendations for occupational therapists**
"supervision is important" "having seminars" "education for our nurses and staff" "dive deeper into the different cultures"		Enhance SRD training	
"must be some activities" "help other youth like me" "going to the garden" "make them join the group" "job opportunities" "having other activities such as sports"		Collaborate within and beyond	

ANNEXURE I: Information document example (for occupational therapists)

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INYUVESI YAKWAZULU-NATALI
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Discipline of Occupational Therapy

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Durban, 4000, South Africa Telephone: 031 260 7310
Facsimile: 031 260 7227 Website: www.ukzn.ac.za

Dear Prospective Participant

Study Title: Occupational Therapy Intervention For Substance-Related Disorders in the Public Primary Health Care Sector in The City of Johannesburg

INTRODUCTION

My name is Kirsty Wilson and I am a qualified occupational therapist. I am conducting a study under the supervision of Mr December Mpanza and Zinhle Mkhize. This study is towards a Master's degree at the University of KwaZulu-Natal.

PURPOSE OF THE STUDY

According to literature, substance-related disorders are a major health and social problem globally, and South Africa is one of the top ten substance abusing countries worldwide. The aim of this study is to explore intervention programmes occupational therapists use, when treating substance-related disorders, in the public primary health care sector in the City of Johannesburg district.

Objectives

1. To identify the intervention programmes used by occupational therapists in the City of Johannesburg district in the public primary health care sector when treating substance-related disorders from the **perspectives of occupational therapists.**
2. To identify the intervention programmes used by occupational therapists in the City of Johannesburg district in the public primary health care sector when treating substance-related disorders from the perspectives of service users.
3. To describe the experiences of substance-related disorders service users who receive interventions by occupational therapists in the public primary health care sector in the City of Johannesburg district in Gauteng.
4. To provide recommendations by service users and Department of Health key stakeholders' for possible strategies for occupational therapy substance-related disorders interventions for the City of Johannesburg district in the public primary health care sector.

I hope that by having a better understanding of the types of interventions being used by occupational therapists, as well as the experiences of these interventions for services users and stakeholders', the findings can possibly act as a foundation for a variety of follow-up studies and can also be used as a guide to inform curriculums in universities with more recent findings on what occupational therapists do in the treatment of substance-related disorders. The findings can also be a guide to possibly implement changes in interventions for substance-related disorders, whether it be clinically or via policy changes.

Participants who qualify include:

- Qualified occupational therapists who have been working in the public primary health care sector for at least 6 months.
- Other health care professionals / key stakeholders working in the public primary health care sector.
- Service users who have attended at least two sessions for their substance-related disorder from an occupational therapist in the public primary health care sector.

STUDY PROCEDURES

The researcher will make use of semi-structured interviews which will take approximately 20 – 45 minutes; either face-to-face, via telephone, or via Zoom. The interviews will be recorded on a mobile phone or laptop and the recordings will be stored in a password-protected google drive folder. The interview recordings will only be used for academic purposes, and pseudonyms will be used in the report writing of the study to protect your identity. All the recordings will be disposed of within five years of completing the study.

TRAVELLING COSTS

You will not be required to travel specifically for the interviews, as the researcher will do the interview on a date and time most suitable for the you (i.e. when at work), either in-person, online or telephonically.

RISKS

No body contact is needed for this study, and therefore risks in this study is minimal. However, you have the freedom to withdraw at any time without any repercussions, to ensure autonomy is maintained and to avoid causing any distress or discomfort.

BENEFITS

The researcher aims to publish an article relating to the study, to maximize benefits for the primary public health sector, occupational therapy interventions for substance-related disorders, and occupational therapy curriculums in universities.

VOLUNTARY PARTICIPATION

Participation in this study is voluntary. No reimbursements will be given to you.

CONFIDENTIALITY

All information will be kept confidential and your privacy will be maintained throughout the study. No personal information (e.g. your name) will be transcribed during data collection.

CONTACT DETAILS OF THE RESEARCHER

If you have any questions about this project or anything that I am doing, you may ask me.

I can be contacted at: [redacted]m

If you would like to contact the people at my university who gave me permission to do this study, you can contact:

- Supervisor: Mpanzad@ukzn.ac.za
- Co-supervisor: MkhizeP@ukzn.ac.za
- Biomedical ethics research committee: (will await ethics approval number) BREC@ukzn.ac.za

ANNEXURE J: Consent form

Discipline of Occupational Therapy

School of Health Sciences
Postal Address: Private Bag X54001, Durban, 4000, South Africa
Telephone: 031 260 7310
Facsimile: 031 260 7227 Website: www.ukzn.ac.za

Dear Prospective Participant

Study Title: "Occupational Therapy Intervention For Substance-Related Disorders in the Public Primary Health Care Sector in The City of Johannesburg**"**

CONSENT TO PARTICIPATE IN THE STUDY

PURPOSE OF THE STUDY

The purpose of the study is to explore the treatment programmes occupational therapists use, when treating substance abuse in the public primary health care sector in the City of Johannesburg district.

RISKS

No body contact is needed for this study, and therefore risks in this study is minimal. However, you have the freedom to withdraw at any time without any consequences, to ensure autonomy is maintained and to avoid causing any distress or discomfort.

INCENTIVES

Participation in this study is voluntary. No reimbursements will be given to you.

PARTICIPANTS UNDERSTANDING (*please tick)*

- ☐ I confirm that I have been informed by the researchers and / or research assistant about how the study will be conducted and the risks of the study.
- ☐ I have understood what the study is about after reading the information document.
- ☐ I understand that my participation is voluntary.
- ☐ I understand that the interview will be recorded.
- ☐ I understand that I will not be identified by name in the study.
- ☐ I know that all records will be kept private and secure.

- ☐ I am aware that the findings of the study will be published in a research report and will be sent for possible publication.
- ☐ I am aware that the researcher may give the findings to another researcher to validate the interpretations.
- ☐ I understand that I can withdraw my consent and participation in the study.

I consent to have the interview ☐

I consent to Audiotaping:

Yes ☐ No ☐

I want the researcher to email me a shortened report of the findings ☐

Participant's number: _____

Participant's signature: _____ Date: _____

Researcher's name: _____

Researcher's signature: _____ Date: _____

ANNEXURE K: BREC ethics approval letter

UNIVERSITY OF KWAZULU-NATAL
INYUVESI YAKWAZULU-NATALI

17 November 2023

Miss Kirsty Wilson (223152371)
School of Health Sciences
Westville

Dear Miss Wilson,

Protocol reference number: BREC/00006245/2023
Project title: Occupational Therapy Intervention for Substance-Related Disorders in the Public Primary Health Care Sector in The City of Johannesburg
Degree: Masters

EXPEDITED APPLICATION: APPROVAL LETTER

A sub-committee of the Biomedical Research Ethics Committee has considered and noted your application.

The conditions have been met and the study is given full ethics approval and may begin as from 17 November 2023. Please ensure that any outstanding site permissions are obtained and forwarded to BREC for approval before commencing research at a site.

This approval is valid for one year from 17 November 2023. To ensure uninterrupted approval of this study beyond the approval expiry date, an application for recertification must be submitted to BREC on RIG on the appropriate BREC form 2-3 months before the expiry date.

Any amendments to this study, unless urgently required to ensure safety of participants, must be approved by BREC prior to implementation.

Your acceptance of this approval denotes your compliance with South African National Research Ethics Guidelines (2015), South African National Good Clinical Practice Guidelines (2020) (if applicable) and with UKZN BREC ethics requirements as contained in the UKZN BREC Terms of Reference and Standard Operating Procedures, all available at http://research.ukzn.ac.za/Research-Ethics/Biomedical-Research-Ethics.aspx.

BREC is registered with the South African National Health Research Ethics Council (REC-290408-009). BREC has US Office for Human Research Protections (OHRP) Federal-wide Assurance (FWA 678).

The sub-committee's decision will be noted by a full Committee at its next meeting taking place on 12 December 2023.

Yours sincerely,

[redacted]

Prof D Wassenaar
Chair: Biomedical Research Ethics Committee

ANNEXURE L: Johannesburg DRC approval letter

GAUTENG PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

Joburg
a world class African city

Research Committee of Johannesburg Health District

Enquiries: Prof S. Moosa | [redacted]

DATE: 23rd November 2023

ATT: Mrs Kirsty Ferrett

EMAIL: [redacted]

Dear Sir/Madam

STUDY TITLE: Occupational Therapy Intervention For Substance-Related Disorders in the Public Primary Health Care Sector in The City of Johannesburg

NHRD REF. NO.: GP_202308_089

OFFICIAL APPROVAL

The District Research Committee has reviewed your application. This letter serves as a final approval letter for this study.

The following conditions must be observed:

- The facilities in which the research will be conducted are listed below
- These facilities will be visited from: **2023/11/23 to 2027/11/17**
- Participants' rights and confidentiality will be maintained all the time.
- Neither the District nor the facility will incur any additional cost for this study.
- No resources (Financial, material and human resources) from the above facilities will be used for the study.
- The study will comply with Publicly Financed Research and Development Act, 2008 (Act 51 of 2008) and its related Regulations.
- You will submit a copy (electronic and hard copy) of your final report. In addition, you will submit an annual progress report to the District Research Committee.
- If this is academic research then your supervisor and the University will ensure that these reports are being submitted timeously to the District Research Committee.
- The District must be acknowledged in all the reports/publications generated from the research and a copy of these reports/publications must be submitted to the District Research Committee.
- You will liaise with the manager/s listed below as relevant before initiating the study.

We reserve our right to withdraw our approval, if you breach any of the conditions mentioned above. Please feel free to contact us, if you have any further queries.

On behalf of the District Research Committee, we would like to thank you for choosing our District to conduct such an important study.

Regards,

[redacted]

Prof S. Moosa
Chairperson: District Research Committee
Johannesburg Health District
As delegated by Mrs M.L. Morewane, Chief Director, Johannesburg Health District, and Mr. Frans Moseane, Acting ED Health, City of Johannesburg

List of Facilities Approved

- Alexandra CHC
- Chiawelo CHC
- Discoverers CHC
- Hillbrow CHC
- Itireleng CHC
- Lenasia Clinic
- Lenasia South CHC
- Mofolo CHC
- Stretford CHC
- Zola CHC

List of Managers

Sub District/ Hospiital	Sub District Manager/ Area Manager	Contact No.	Cell phone	Email
PHC Director	Ms Lombuso Matlala	011 440 1259	[redacted]	[redacted]
ABCEF	Ms Libby Pholofolo	011 440 1259	[redacted]	[redacted]
D	Ms Maria Mazibuko	011 674 1200	[redacted]	[redacted]
G	Mr Peter Mathole	011 213 9603	[redacted]	[redacted]

ANNEXURE M: City of Johannesburg Municipality approval letter

City of Johannesburg
Department of Corporate & Shared Services
Office of the Group Head: Group Human Capital Management

6th Floor, B Block
Metropolitan Centre
158 Civic Boulevard
Braamfontein

PO Box 1049
Johannesburg
South Africa
2000

Tel +27(0) 11 407 6926
Fax +27(0) 11 339 1878

www.joburg.org.za

06 November 2023
Kirsty Wilson
Student no: 223152371
Master's: Occupational Therapy
University of Kwa Zulu Natal

Ref: Permission to conduct research study

This letter serves to acknowledge receiving the letter requesting permission to conduct research in the City of Johannesburg under the title: **"OCCUPATIONAL THERAPY INTERVENTION FOR SUBSTANCE-RELATED DISORDERS IN THE PUBLIC PRIMARY HEALTH CARE SECTOR IN THE CITY OFJOHANNESBURG."** I am aware that the study entails the collection of information from the City, city officials and participants from communities through semi-structured interviews, questionnaires, observation participation and other fora of the city.

The research study is promoted by the City of Johannesburg because it helps both students and practitioners to gain an understanding of the sociology of the City, as it evolves and contributes towards the building of developmental local government.

I, Tersia Johanna Groenewald, as delegated authority of the City of Johannesburg Municipality (the City), hereby give permission to the primary researcher, Kirsty Wilson, the following:

To collect and publish information about the City is publically not available, for the research project titled: **"OCCUPATIONAL THERAPY INTERVENTION FOR SUBSTANCE-RELATED DISORDERS IN THE PUBLIC PRIMARY HEALTH CARE SECTOR IN THE CITY OFJOHANNESBURG."**

- This authorisation is based on mutual understanding that the City's name can be revealed in her/his project; and
- The researcher contacts the relevant department for arrangements pertaining to the research; and
- The information provided by the employees or any other means (such as company's archived documents or reports) of the City is purely for academic purposes and cannot be used for any other purpose.

Please note that on completion of the study, a copy of the research report should be submitted to the City of Johannesburg in honour of your commitment.

I urge you to present this letter of permission whenever you come across officials and participants in the research study. I thank you for choosing the City of Johannesburg to conduct the study.

Kind Regards

[redacted]

Ntombozuko Lufungo (on behalf of Tersia Groenewald)
Acting Manager: Human Resource Development
Tel: (011) 407- 6064
Email: [redacted]a

ANNEXURE N: Turnitin report

Occupational Therapy Interventions for Substance- Related Disorders in the Public Primary Health Care Sector in The City of Johannesburg

by December Mpanza

Submission date: 18-Sep-2024 05:01PM (UTC+0200)

Submission ID: 2457951379

File name: Kirsty_Wilson_Thesis_Sept_2024.pdf (6.5M)

Word count: 36220

Character count: 225799

Occupational Therapy Interventions for Substance-Related Disorders in the Public Primary Health Care Sector in The City of Johannesburg

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