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

AUTHORS
*Kirsty Ferrett [a]
https://orcid.org/0000-0002-2307-4163
Phakeme Zinhle Mkhize [a]
https://orcid.org/0000-0002-8763-9135
December Mandlenkosi Mpanza [a]
https://orcid.org/0000-0003-2777-9256

AFFILIATIONS
[a] Discipline of Occupational Therapy, School of Health Sciences, University of KwaZulu-Natal, Westville Campus, University Road, Westville, Durban, KwaZulu-Natal, South Africa
* Post-graduate student at the University of KwaZulu-Natal at the time of the study

CORRESPONDING AUTHOR
Kirsty Ferrett
Email: wkirsty7@gmail.com

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https://orcid.org/0000-0002-3543-0743

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ABSTRACT

Introduction: The specific nature of occupational therapy interventions for substance-related disorders in South African primary health care settings remain unclear, despite these disorders posing significant intersecting health and social challenges. The 2023 Prevention of and Treatment for Substance Use Disorders Policy emphasises a shift towards collaborative care, however it remains unclear how occupational therapists enact these directives.
Methods: An exploratory qualitative study explored 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 settings—such as underfunding 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. These findings highlight the need for occupational therapists to actively engage in health promotion, substance-related disorder prevention, and enhanced interprofessional collaboration to address these conditions more comprehensively.

INTRODUCTION

The knowledge of occupational therapists and other members of the multidisciplinary team (MDT) in the management of substance abuse and substance-related disorders (SRDs)[1] 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)*[1] define substance abuse as excessive use of a

substance without medical justification, despite its negative impacts. SRDs significantly affect performance skills, cognition, and psychosocial well-being[2]. Individuals with SRDs often withdraw from activities such as hobbies and family gatherings[3], and have comorbid mental health conditions. They also experience difficulties in fulfilling life roles and present with poor academic or work performance[3]. These occupational disruptions highlight the importance of a holistic approach by occupational therapists[4].

By addressing behaviours and lifestyles—a well-established practice [3] highlighted in the *NDMP (2019-2024)*[1]—occupational therapists aim to enhance quality of life[5]. They work in primary health care (PHC) settings 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[6].

In addition to health promotion activities such as life skills training (e.g., coping and problem-solving, stress management, and psychoeducation)[7], 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[8]. 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[9]. This suggests that the focus of occupational therapy interventions in these settings needs to be broadened to more adequately address SRDs, given the recognised need for such interventions[3, 6, 10]. The study did not specify whether other MDT members focus on health promotion and disease prevention[9]. 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 promotion and disease prevention[6]. Additionally, the Department of Social Development (DSD) prioritises health promotion and disease prevention[1] and is expected to collaborate closely with the DoH[1].

Occupational therapists began offering mental health services in PHC settings in 2021, following the response by the Gauteng DoH to the 2016 Life Esidimeni tragedy[11], which resulted in the deaths of 144 mental health care users (MHCUs) due to negligence [13].Prior to this, the focus of occupational therapy services in PHC settings was predominantly on rehabilitative interventions. By July 2021, new vacancies for mental health occupational therapists became available in PHC settings 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[1,13]. 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[14-18]. However, no literature was found on occupational therapy interventions for SRDs in the public PHC sector in the City of Johannesburg district within Gauteng. Furthermore, the researcher's experience 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 raised concerns regarding the adequacy of "groundwork" conducted by occupational therapists implementing SRD interventions at the PHC level.

This concern is supported by findings from a study conducted in an acute psychiatric ward at Helen Joseph Hospital, a tertiary facility in the City of Johannesburg district. Among 150 study participants, 100 were diagnosed with SRDs, while a further 23 reported SRD symptoms without a formal diagnosis[19]. Notably, of the 100 individuals with diagnosed SRDs, only two were referred for inpatient rehabilitation upon discharge, highlighting gaps in the continuum of care[19].

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[1]. 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[1], 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[1,14,28]. 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[1,1]. 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 substance abuse[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 an MDT including social workers, professional nurses, and other mental health practitioners[10]. Thus, occupational therapists are expected to implement SRD prevention strategies in clinics and community health centres (CHCs).

The Occupational Therapy Practice Framework (OTPF) defines occupational therapists as professionals who design occupation-based interventions by considering the transactional relationship between the service user, 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

[1] For this study, 'SRDs' and 'substance abuse' are used interchangeably.

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[1]. 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[7], 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 aimed to explore occupational therapy interventions for SRDs in the City of Johannesburg's public PHC sector. Specifically, it examined the perspectives of occupational therapists and service users, evaluated user experiences, and gathered 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 361 PHC facilities in Gauteng, nine clinics and CHCs 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	INCLUSION CRITERIA
Occupational therapists	- 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. (One 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	- 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	- 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, and refined through a pilot study to ensure clarity and relevance. The questions covered participant demographics, experiences related to substance use, barriers to care, occupational therapy interventions, and recommendations for improving services. 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 and permission 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 conducted in-person at clinics and CHCs, with the researcher interviewing participants individually in private offices, and seven were conducted online via Zoom. Interviews were audio-recorded with consent, except for two participants who declined

recording, for whom hand-written notes sufficed. All interview recordings were stored on a password-protected laptop and will be securely disposed of within five years of study completion.

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 test the semi-structured interview questions[39]. The pilot was successfully carried out as planned and highlighted the need to clarify participant responses more effectively. It also increased the researcher's confidence in conducting interviews. Additional questions were added to the interview guide to improve clarity and comprehensiveness. These pilot participants were included in the final sample.

Data analysis

The audio-recorded interviews were transcribed verbatim by a transcriber who signed a confidentiality agreement and were manually cross-checked by the researcher. 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 enhanced 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,Error! Reference source not found.] 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

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 of relevant demographic information for all participants (Table II below) and a thematic map illustrating the six themes related to the four study objectives (Table III page 5). 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	Age of participant (years)	Participant title	Years in public healthcare
Sage	Sarah	23	occupational therapist	Community service
	Tilly	33	service user	n/a
	Odette	40	clinical psychologist	3
	Peter	52	social worker	19
Green	Shiloh	59	OTT	20
	Ulani	40	counselling psychologist	2
Lime	Betty	30	occupational therapist	5
	Sadie	27	registered nurse	3
Emerald	Tru	32	registrar psychiatrist	6
	Axel	25	occupational therapist	4
Aqua	Nash	24	occupational therapist	Community service
	Bea	33	occupational therapist	10
Cyan	Celine	23	occupational therapist	Community service
	Edward**	23	occupational therapist	Community service
Pastel	Edward**	23	occupational therapist	Community service
Olive	Ava	28	occupational therapist	3
Fern	Umar	46	service user	n/a
	Sipho	27	service user	n/a
	Eli	27	service user	n/a

* Pseudonyms have been used for participants, clinics and CHCs, in order to protect the identities of participants.
** This is the same participant. He worked at both Cyan clinic and Pastel clinic.

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
		Improve collaboration within MDTs and beyond

Data sources for the next section are organised as follows: "quote" (participant 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. Sarah, an occupational therapist at Sage clinic, highlighted the client-centered nature of occupational therapy:

"…it depends on the patient every time."

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."

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 and non-standardised assessment tools include the SLUMS (Saint Louis University Mental Status), MoCA (Montreal Cognitive Assessment), VdTMoCA (Vona du Toit Model of Creative Ability), and the MMSE (Mini-Mental State Examination).

"…we are using the SLUMS… the MoCA…looking at creative ability…" **(Ava, Olive, occupational therapist)**
"…[we] do a MMSE…"
(Edward, Cyan and Pastel, 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:

"…we have to either run campaigns or we have to do screenings."
(Bea, Aqua, occupational therapist)

However, although occupational therapists conduct campaigns, many of the campaigns often focus on physical ailments rather than mental health:

"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 considered 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. These resource limitations often result in activities that are contextually irrelevant. Edward, an occupational therapist working at both Cyan clinic and Pastel clinic, reported that the occupational therapy department offers painting activities, even though many service users have no prior experience with painting and lack access to painting supplies once they leave the clinic or CHC.

In addition to shortages of non-human resources, human resource constraints—such as understaffing—also 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)**
"…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)**

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)**

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)**

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 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: Socio-economic 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, stress, and social gatherings 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 SRD 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: Improve collaboration within MDTs 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 programmes 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[1,14,28,29]. Additionally, community environments that foster and normalise substance use pose a significant challenge and reflect a widespread issue in South Africa[3,14]. 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].

As South Africa moves toward universal health coverage (UHC) through the implementation of National Health Insurance (NHI), the health system is being restructured to strengthen PHC and improve service delivery by 2030[58]. Thus, occupational therapists in clinics and CHCs are expected to provide the full scope of occupational therapy interventions rather than specializing in mental or physical rehabilitation. However, 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. These challenges reflect broader logistical constraints within South African PHC settings, such as limited resources and high patient loads, which may hinder the sustainability of group interventions. 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[59]. When individuals cannot engage in necessary or desired occupations due to factors beyond their control, they experience occupational injustice, particularly occupational deprivation[60]. Service users often face such deprivation due to limited employment and leisure opportunities, leading to stress, boredom and substance use. Health practitioners 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[4]. 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[1]. 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[5]—resource limitations remain a significant barrier. For example, an occupational therapist (Edward) reported 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[14,20,26,30,37,61,62]. 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[64]. 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[1,1], 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[1,62] increases relapse risk[65]. Despite objectives in the *Health Sector Drug Master Plan (2019-2025)* to improve access[65], limitations in treatment access persist. 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[65], 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[1]. 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[61]. In addition, mental health is often undervalued compared to physical health[14], and collaboration among MDT members remains minimal, despite the need for a collective approach to substance abuse as outlined in various policies and literature[1,1,13,61,66]. 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[9], suggesting a lack of role clarity in PHC settings or insufficient understanding of the occupational therapy role. In addition, inadequate SRD training, as highlighted by participants and the *Prevention of and Treatment for Substance Use Disorders Policy (2023)*[1], leads to poor or inappropriate interventions and underdiagnosis[25,61]. Thus, improved training on SRDs[1,61]—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[33,64]. An individual's performance can be limited by contextual barriers[62], 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, meaning that many health practitioners are still gaining experience and learning. The study findings may be generalised to Gauteng province, but further research in other provinces is recommended because healthcare settings vary across South Africa.

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.
- Engage in ongoing professional development, with 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.
- Prioritise mental health services to ensure they are not compromised by the integration of mental and physical rehabilitation roles.
- Conduct more campaigns and routine screenings for SRDs.

Multidisciplinary teams in PHC settings

- Strengthen collaboration between MDT members, WBPHCOTs, and the DSD to enhance screening efforts and increase SRD-focused campaigns, including psychoeducation and information on how to access help.
- Enhance interprofessional collaboration through regular team meetings to clearly define roles and responsibilities, reduce service duplication, and improve the implementation of SRD prevention and health promotion strategies, guided by relevant policies[1,1].
- Ongoing training is recommended for all health practitioners involved in substance use car, as highlighted by participants and the *Prevention of and Treatment for Substance Use Disorders Policy (2023)*[1].

Occupational therapy curricula at universities

The study identified insufficient training in SRDs, particularly among newly qualified occupational therapists. 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[65]—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 graduates 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 DSD, recommendations include the following:

- Allocate additional funding to enhance PHC infrastructure and resources, enabling implementation of goals stipulated in the *NDMP (2019-2024)*[1] and the *Prevention of and Treatment for Substance Use Disorders Policy (2023)*[1].
- Increasing budget alone is insufficient; deliberate measures are also needed to improve healthcare quality and capacity, including hiring more health practitioners to manage high caseloads and implement community-based programmes.
- Ensure each clinic and CHC has a complete MDT to provide consistent, holistic care, addressing reliance on visiting staff and gaps in substance abuse services. Strengthening human resources to address substance abuse is a strategic goal outlined in the *Health Sector Drug Master Plan (2019-2025)*[65].
- Each clinic and CHC should employ a senior occupational therapist to supervise and support newly qualified therapists, enhancing their confidence and effectiveness. Where on-site supervision is not feasible, mentorship programmes involving experienced occupational therapists—particularly those with a special interest in SRDs—could provide knowledge sharing and peer support. This aligns with the *Prevention of and Treatment for Substance Use Disorders Policy (2023)*[1], which recommends ongoing supervision for all health practitioners managing substance abuse.

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 use the interventions identified in this study; how often, and with which service user profiles.
- Conduct a qualitative study with external stakeholders to explore how occupational therapists can strengthen partnerships with community support services and programmes.
- Conduct similar studies throughout South Africa to obtain a comprehensive view of SRD interventions nationally and identify regional differences in practice and resource availability.
- Investigate the experiences and recommendations of family members or caregivers of service users, to identify how occupational therapists can better assist these individuals.

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 findings highlight the need for enhanced collaboration among MDT members and for improved health promotion and SRD prevention efforts, including increased screenings and campaigns. Service users generally perceive occupational therapists positively, particularly valuing the meaningful social interactions experienced in group therapy sessions.

To strengthen SRD interventions in public PHC settings, occupational therapists, policymakers and healthcare managers must prioritise interprofessional collaboration, ongoing training, and robust supervision and mentorship for newly qualified therapists, enabling the public health system to more effectively address the challenge of SRDs.

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Conflict of interest

The authors declare no conflicts of interest to declare.

Author contributions

Kirsty Ferrett, a master's student at the time of the study, conducted the study under the supervision of Phakeme Zinhle Mkhize and December Mandlenkosi Mpanza from study conceptualisation through to manuscript submission and revision. Phakema Sinhle Mkhize and December Mandlekosi Mpanza contributed to the study's conceptualisation and design, refined the methodology, provided ongoing academic supervision, and were substantially involved in editing multiple drafts and critically revising the manuscript.

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