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The Application of Garden Therapy In Social Work Practice for Individuals with Substance Use Disorders In South Africa

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Abstract: Substance use disorders (SUDs) remain a significant challenge in South Africa, with high relapse rates despite the availability of various treatment approaches. Garden therapy, although underutilized in social work, has shown potential as a therapeutic intervention that promotes personal growth, resilience, and holistic rehabilitation. This review explores the potential application of garden therapy in social work practice with male substance users in South Africa. An integrative literature review was conducted to assess and synthesize existing research on garden therapy and its relevance to substance use recovery. A structured search was undertaken using multidisciplinary databases, including Google Scholar, Taylor & Francis, Scopus, ScienceDirect, and ResearchGate. The PRISMA flow diagram was adapted to illustrate the screening and selection process. Twenty-eight peer-reviewed articles published between 2012 and 2024 met the inclusion criteria and were analyzed through narrative synthesis. The review identified several benefits of garden therapy, including stress reduction, improved emotional regulation, and the development of life skills such as teamwork, responsibility, and problem-solving. Evidence suggests that garden therapy can complement established interventions such as Cognitive Behavioral Therapy, Motivational Interviewing, mindfulness, and family therapy. Challenges to its wider adoption include limited awareness, insufficient empirical evidence, accessibility issues, cultural resistance, and the absence of therapeutic gardens in South Africa. Garden therapy represents a promising, multidimensional intervention that can enhance social work practice with individuals experiencing SUDs. Integrating garden therapy into treatment and aftercare programs may improve recovery outcomes, foster family preservation, and strengthen community reintegration. Greater research, policy support, and training for social workers are essential to realize their full potential in addressing substance misuse in South Africa.

Keywords: Garden Therapy, Therapeutic Gardening, Horticulture Therapy, Ecological System, Resilience, Psychosocial Support, Substance User

1. Introduction

Horticultural therapy gained recognition as a health-related intervention following World War II, when hospitals across the United States engaged garden club volunteers to work with veterans. Soon after, occupational therapists, psychologists, and social workers incorporated gardening activities into rehabilitation programs for military and veteran patients (Pappas, 2006). Garden therapy is defined as a professional intervention that intentionally uses experiences and activities related to plants and gardens to foster interaction between people and their environment, thereby improving quality of life and supporting functional health (AG Concept Group & Vollmer, 2017). According to the AG Concept Group & Vollmer (2017), garden therapy promotes positive outcomes based on an individual's background, encourages self-determined social engagement, and alleviates or mitigates the effects of illness.

In the field of addiction, social workers play a central role in reducing substance use through counseling and treatment (Unegbu, 2020). Despite these efforts, South Africa has witnessed a rise in admissions to treatment centers for individuals with substance use disorders (SUDs) (SACENDU, 2017). Research conducted in provinces such as Gauteng and KwaZulu-Natal highlights increasing relapse rates, with a majority of patients presenting as recurrent admissions rather than first-time users (Ndou & Khosa, 2023). Social workers, positioned as the primary entry point and the final discharge authority within treatment centers, collaborate with multidisciplinary teams of doctors, nurses, and psychiatrists (Khanyi & Malesa, 2022). Their skills and knowledge enable them to support recovery, yet significant challenges persist. These include high staff turnover, frequent closure of treatment centers, and service models that prioritize short-term interventions over long-term rehabilitation and social support (Legha, Raleigh-Cohn, & Novins, 2014). Furthermore, cultural competence is increasingly recognized as essential when intervening with substance users, given the widespread nature of substance misuse in South Africa (Straussner & Schiff, 2014). Scholars also emphasize the need for better integration of evidence-based models in substance abuse treatment (Louie, Barrett, Baillie, et al., 2021).

Garden therapy offers potential to address these gaps by engaging individuals in psychosocial sessions that connect recovery with ecological awareness. Through nurturing, fertilizing, and tending to plants, individuals are encouraged to reflect on their own lives and choices. The sensory engagement, sight, sound, touch, smell, taste, and intuition, provides opportunities for self-discovery and emotional healing. The physical dimensions of a garden, such as size and structure, symbolically reinforce personal uniqueness and self-worth. Seasonal

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changes further illustrate resilience, growth, and transformation, while the presence of plants and flowers can serve as positive triggers for strength and recovery. Evidence supports its therapeutic potential. Grant (2023) found that garden therapy reduces stress in recovering individuals, aligning with Lehmann, Detweiler, and Detweiler (2018), who demonstrated that contact with nature, whether active or passive, mediates stress by influencing the central nervous, endocrine, and immune systems.

The National Institute on Drug Abuse (NIDA, 2018) identifies a range of treatment approaches, such as inpatient and outpatient care, individual and group therapy, and criminal justice interventions, that together highlight the importance of diverse strategies in addressing substance abuse. Historically, nature has long been regarded as a source of healing across cultures (Adevi & Lieberg, 2012), yet its application in structured recovery programs remains limited.

This paper highlights the urgent need to integrate garden therapy into social work practice in South Africa. Social workers are well-positioned to pioneer such innovative interventions, which may enhance the overall quality of life for individuals recovering from substance misuse. Prior studies (Parkinson, Lowe, & Vecsey, 2011; Soga, Gaston, & Yamaura, 2016; Agne, 2023) affirm the positive impact of therapeutic gardening on well-being. However, most treatment facilities rarely include outdoor or nature-based components in their programs (Agne, 2023), and evidence-based use of horticultural therapy remains underutilized in recovery contexts (Lopez, 2023). Moreover, research on garden therapy within South African social work is limited and still developing (Pires et al., 2019). This study, therefore, seeks to draw attention to the potential of garden therapy, encouraging evidence-based exploration of its application in social work practice. Greater scholarly and practical focus on this approach could deepen its integration into rehabilitation and contribute meaningfully to community health outcomes.

1.1. Problem Statement

Families of individuals with substance use disorders (SUDs) are often frustrated by the persistent relapse of their loved ones, despite repeated attendance at treatment centers. As Lander, Howsare, and Byrne (2013) observe, substance addiction not only affects the individual but also disrupts the entire family structure. In South Africa, relapse rates remain high despite the range of approaches, methods, and treatments offered by welfare organizations, professionals, and the Department of Social Development. This ongoing challenge highlights the urgent need for innovative and alternative strategies to address the drug problem, which continues to strain the country's economy, destabilize families, and burden the health sector.

The South African National Council on Alcoholism and Drug Dependence (SANCA) is one of the largest and most comprehensive non-governmental organizations dedicated to treating individuals with SUDs. While SANCA implements a wide variety of prevention and treatment initiatives, its annual reports consistently document high relapse rates across the country. Programs currently offered include (SANCA, 2023):

- *Boogie Woogie* puppet shows (ages 4–9)
- *Shatterproof* puppet shows (ages 10–14)
- *Life is a Choice* (TADA peer education program for adolescents)
- *Never Give Up on Community* (stakeholder engagement and development)
- *Can You Hear Me Now* (prevention of fetal alcohol spectrum disorder, targeting pregnant women)
- *Change or be Change* (treatment program)
- *TIME Outpatient* (programs for adolescents and adults)
- *TIME is Significant* (programs for adolescents and adults)
- *New Beginnings* (aftercare group work program)
- *Ripples* (aftercare support program)
- *TIME Aftercare* (program for adolescents and adults)

Although these programs report some positive outcomes, relapse remains a widespread issue. Swanepoel (2014) emphasizes that young African adults are frequently re-admitted to treatment facilities. Similarly, the Minister of Social Development, Ms. Lindiwe Zulu, reaffirmed in the 2023 *Policy on the Prevention of and Treatment for Substance Use Disorders* that the government aims to reduce substance use, particularly in African communities (South Africa, 2023b). However, despite policies that prioritize prevention, early intervention, treatment, and aftercare, the South African Community Epidemiology Network on Drug Use (SACENDU, 2023) continues to report high relapse rates. SACENDU's data, drawn from 82 treatment centers and 13 community-based harm reduction providers across multiple provinces, underscores the persistence of the problem. Notably, the Government Gazette (South Africa, 2023b) makes no reference to garden therapy as a potential intervention to address relapse.

In addition, garden therapy is absent from South African social work education and professional training. While university curricula cover a variety of therapeutic approaches and provide guidance on applying theory in practice, garden therapy is not included as a recognized intervention for individuals with SUDs. This absence represents a critical gap in both practice and scholarship. Against this backdrop, very little is known about the potential of garden therapy as a social work intervention for individuals struggling with substance misuse.

2. Theoretical Framework

2.1. Ecological Systems Theory

Bronfenbrenner's Ecological Systems Theory (1979; 1988) highlights the relevance of four contextual systems, micro, meso, exo, and macro, that interact to shape human development and behavior. Drawing on Bogg and Finn's (2009) ecologically based model of alcohol-consumption decision making, this study particularly emphasizes the microsystem, as it represents the

immediate environment influencing an individual's daily life. The microsystem includes family, peers, school, and workplace contexts (Sincero, 2012; Lietz et al., 2016; Jaspal, Carriere, & Moghaddam, 2016). For example, if drugs or alcohol are readily available within these settings, individuals may be more vulnerable to falling into cycles of substance use.

A key tenet of ecological systems theory is the recognition that individuals live within a wider, often complex, network of interrelated systems. This perspective is central to social work practice, which seeks to understand and intervene at multiple levels of influence. Unlike individualized health or social care approaches, social work acknowledges and operationalizes the interaction between individuals and their environments. Accordingly, each level of ecological systems theory can be applied to social work education and practice in the context of substance use.

At the core of the nested systems lies the individual, whose experiences are shaped by family and community relationships (mesosystem), broader social structures and institutions (exosystem), and cultural as well as societal contexts (macrosystem). The application of ecological systems theory, therefore, enables practitioners to account for both personal and contextual influences on behavior (Galvani, 2017). In the case of substance use, factors across all ecological levels, individual, relational, community, societal, and cultural, may contribute to patterns of consumption and related harms (Snijder et al., 2020).

3. Research Methodology

This study employed an integrative literature review as its guiding methodology (Snyder, 2019; Toronto & Remington, 2020; Oermann & Knafl, 2021). An integrative review was selected because it allows for the assessment and synthesis of existing literature to generate new theoretical insights and perspectives (Torraco, 2005). While many integrative reviews address mature topics, they are also appropriate for emerging areas of inquiry. Given that the application of garden therapy in South African social work is still an emerging field, this study sought to develop preliminary conceptualizations rather than revisit established models (Snyder, 2019).

The integrative review process involved five key steps: (1) identifying the problem, (2) conducting a literature search, (3) evaluating the data, (4) analyzing the findings, and (5) presenting the results (Snyder, 2019; Oermann & Knafl, 2021). To define the research problem, the authors examined the current state of knowledge on garden therapy within social work practice in South Africa. This review revealed a knowledge gap concerning the role of garden therapy in supporting individuals who experience recurring relapses due to substance abuse, despite the recognized importance of social workers in addiction treatment.

Based on this gap, the following four research questions were formulated:

1. What approaches and methodologies are used by social workers in the field of addiction when treating individuals with SUDs?
2. Are social workers in South Africa aware of garden therapy?
3. Do South African universities' social work syllabi include garden therapy?
4. Are social workers in welfare organizations and government departments in South Africa aware of, or do they implement, garden therapy?

To address these questions, a systematic search of the literature was conducted. All papers published up to August 10, 2024, were considered if they included the key terms: *"garden therapy"*, *"university syllabuses"*, *"South African social work practice"*, *"substance use disorders"*, and *"South African social work policies"*. Searches were carried out across five multidisciplinary databases: Google Scholar, Taylor & Francis, Scopus, ScienceDirect, and ResearchGate.

As this study relied solely on publicly available documents and did not involve the collection of new empirical data, ethics approval was not required.

3.1. Design of Included Publications

The inclusion criteria were all articles related only to humans, including grey literature. The exclusion criteria were articles for which the full text was not available and not in English. Of the sources reviewed, only related articles met the inclusion criteria. The suitable articles were identified based on the research questions posed. 28 of the 71 academic journals that were found in the first search were excluded from the second search because they did not fit the inclusion requirements. After 50 of the 60 journals that were deleted underwent additional screening, there were a total of 60 records left. Then, a total of 8 journals were eliminated due to their irrelevant content. Only twenty-eight academic journals from 60 of the original 71 journals were used in the paper; 4 of the 10 scholarly documents that the researchers had chosen were removed because they contained information that was unrelated to the use of garden therapy in social work practice.

This study followed the approach of an integrative literature review, which is distinct from a systematic review or meta-analysis. Whereas systematic reviews demand rigorous adherence to PRISMA protocols, formal quality appraisal tools, and reproducible search strategies, the scope of an integrative review is broader. Its purpose is to identify, summarize, and conceptually synthesize existing evidence to generate new insights, highlight research gaps, and inform both practice and future inquiry (Snyder, 2019; Torraco, 2005). In this study, a PRISMA flow diagram was adapted to illustrate the search and selection process for transparency; however, the review did not include statistical meta-analysis or formal coding of data. Instead, it provided a narrative synthesis of 28 peer-reviewed studies that met the inclusion criteria. This approach is particularly appropriate given that research on garden therapy in social work, especially within the South African context, remains limited and emergent. The researchers validated the 28 peer-reviewed journal papers that were retained after screening to ensure they met the required standards of quality. Consequently, the review focused exclusively on these 28 academic sources. Each article was carefully examined to confirm compliance with the inclusion criteria, which were as follows:

Inclusion criteria:

- Scholarly documents in the English language
- Scholarly documents covering the research questions of this paper

- Scholarly documents published between 2012 to 2024
- Included the global studies that address the research questions of this paper

To minimize errors and potential bias, data extraction was conducted independently by the authors. They then compared findings and resolved discrepancies through discussion. Data extraction points included study characteristics such as authors, year of publication, country of origin, research methods, and theoretical framework(s).

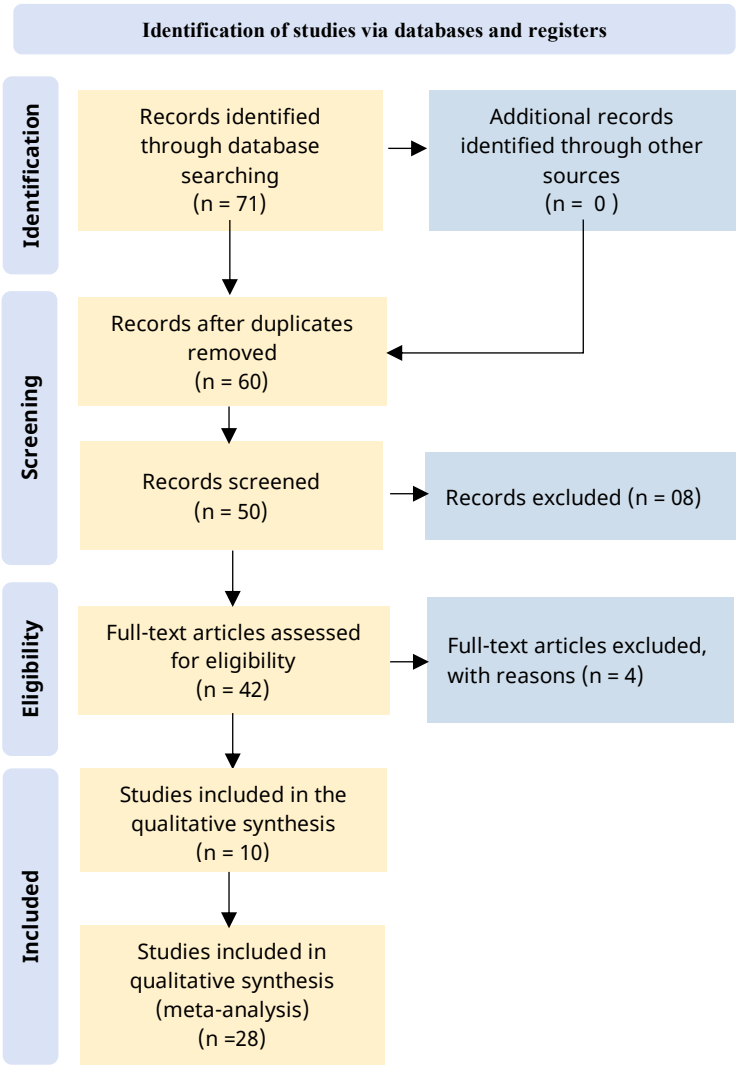

Figure 1: PRISMA 2009 Flow Diagram

SOURCE: https://www.equator-network.org/wp-content/uploads/2013/09/PRISMA-2009-Flow-Diagram-MS-Word.doc

4. Discussion

This study sought to explore the potential of garden therapy as a complementary intervention for individuals with substance use disorders (SUDs) in South Africa. The findings from the integrative review suggest that garden therapy can strengthen existing social work practices by addressing psychosocial, family, and community dimensions of recovery. The following discussion highlights key areas where garden therapy can be applied.

4.1. Comprehensive Assessment and Individualized Planning

Social workers are encouraged to assess each client's situation in order to identify the most appropriate intervention strategy. Screening, intake information, biographical details, family background, psychosocial issues, education, socioeconomic circumstances, risk assessment, and client expectations, considered in relation to life stage, the circle of courage model, community environment, and available resources, should guide the person-centered and ecological approach, including the integration of garden therapy (Parker, 2020).

A comprehensive and detailed assessment (see Figure 2) enables social workers to plan and develop holistic, results-oriented single- or multi-intervention programs based on garden therapy, while also equipping them to make referrals and collaborate with multidisciplinary teams. Such integrated services can help clients find purpose, gradually reduce substance use, and build resilience to achieve sustained recovery (Chan & Lei, 2017). The development of an Individual Development Plan based on this assessment further guides the multidisciplinary team in the rehabilitation process, with social work serving as the client's primary entry point into the system.

When supported by relevant skills, theoretical grounding, and carefully designed individualized interventions, the team is more likely to achieve effective collaboration with stakeholders and contribute to positive outcomes in individual and family preservation (Stanford, 2017). Moreover, when social workers apply garden therapy in ways that are sensitive to locality, cultural and social environments, knowledge systems, beliefs, and religious contexts, the model is more likely to yield sustainable and lasting results. Figure 2 illustrates the casework management process of garden therapy within the context of social work.

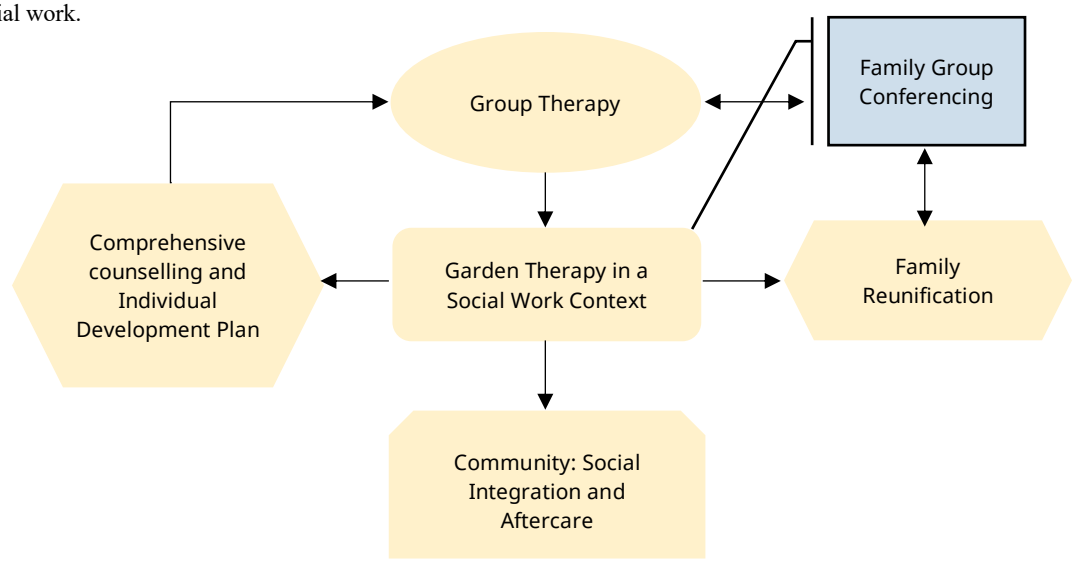

Figure 2: Case management social work process

Figure 3: Garden therapy. **Source:** https://www.facebook.com/gardenpediathebook

4.2. Psychosocial Support Group Therapy and Garden Therapy

Social support is a multifaceted concept that encompasses both emotional assistance and the exchange of knowledge and experience (Brunelli, Murphy, & Athanasou, 2016). Tracy and Wallace (2016) describe it as a process of sharing information and experiences among individuals with similar goals and struggles, such as those in recovery from substance use, in order to encourage and support one another. Building on this perspective, a Garden Therapy Support Program can be structured into sessions that foster skills in creativity, innovation, teamwork, accountability, analysis, problem-solving, and decision-making. These abilities are essential for developing sustainable habits and maintaining sobriety. Such programs also aim to help participants overcome stigma while cultivating a positive outlook on plants, flowers, grass, and other garden features (see Figure 3). Over time, clients' associations with specific garden characteristics can provide new, positive triggers to help them cope with cravings. Psychosocial support groups, therefore, play a crucial role in the long-term recovery of individuals with SUDs, serving both outpatient and inpatient clients. They achieve this through comprehensive evaluation reports and individualized action plans (López et al., 2021).

The garden ecology metaphor further reinforces the idea that clients are part of a larger system: when one component of the ecosystem malfunctions, the entire system is affected. Concepts such as seasons, planting, fruiting, harvest, leaf loss, and blooming serve as reminders that challenges in one period are necessary to prepare for growth in the next. These natural cycles encourage individuals to make informed choices rather than acting impulsively in ways that might disrupt both personal and collective progress. In support of this interpretation, Olechowski (2024) argues that complex interactions between human beings and surrounding natural components, plants, animals, stones, streams, and landscapes remind us of the enduring and interconnected nature of life.

4.3. Family Group Conferencing to Support Individuals with Recurrent Relapses

Family Group Conferencing (FGC) is defined as "an intervention in which a plan is not made by a professional, but by the person who needs help and support himself, together with his social network" (Metze, Abma, & Kwekkeboom, 2015, p.166). It can be adapted to various contexts and settings to meet the needs of individuals from diverse backgrounds. Its primary purpose is to bring family members together to form a collective support group for a relative in need (Dijkstra et al., 2016). Research suggests that conducting FGC sessions in garden settings, rather than in formal office spaces, can evoke family memories, connect participants to shared histories, and utilize natural elements, such as plants, grass, insects, and birds, as therapeutic and educational tools. FGC also functions as preparation for reintegration, enabling families to be psychologically and emotionally ready to welcome a member back and provide sustained support.

4.4. Family Preservation and Reunification

Family preservation refers to social service practices designed to maintain, strengthen, and restore family relationships (Strydom, 2012). The *Children's Act (Act 38 of 2005)* reinforces this principle by emphasizing in Section 2(a) the importance of preserving and strengthening families (South Africa, 2005). Similarly, the *White Paper on Families* (South Africa, 2013) highlights the role of resilience-focused preservation services in keeping families together. Zimba, Tanga, and Ntshongwana (2023) argue that emphasizing preservation services can reduce the number of children entering statutory care while enabling families to recognize their inherent capacity to protect and support their members. In contexts where water resources are limited, families may rely on indigenous vegetation or, as part of reintegration efforts, may choose to establish a garden project. Such initiatives, tailored to resource availability, can serve as symbolic and practical means of rebuilding trust and strengthening family bonds (Igamba, 2022).

4.5. Social Integration and Aftercare

Sustained recovery from substance use disorders requires effective social integration and ongoing aftercare. For many individuals, long-term support programs are essential, as relapse often occurs in the absence of stable environments that facilitate the transition to independent sober living (Jason et al., 2022). The environment plays a pivotal role in shaping recovery outcomes, and structured aftercare is often necessary once acute treatment is completed.

Aftercare services, typically provided on an outpatient basis, aim to help rehabilitated individuals maintain treatment gains by supporting abstinence and facilitating reintegration into family and community life (McKay, 2021). These services reduce relapse risk by providing continuity of care and promoting stability. In practice, this process involves integrating clients back into their neighborhoods while ensuring continued support. Case managers may refer clients to local social workers, who collaborate with stakeholders and community projects to foster engagement. Such arrangements provide opportunities for clients to lead meaningful and purposeful lives, rebuild confidence, and restore trust within their social networks.

4.6. Limitations and Challenges of Garden Therapy

Garden therapy offers multiple benefits for mental health and well-being; however, its wider adoption is hindered by several challenges. These include a lack of awareness of its benefits, limited accessibility, insufficient evidence regarding its efficacy, cultural resistance, resource constraints, and the need for greater interdisciplinary collaboration. A lack of information about its availability and therapeutic value reduces the likelihood of referrals and participation (Wood et al., 2022). There is also an urgent need for training on the therapeutic effects of gardening, both for healthcare professionals and service users (Wood et al., 2022). In addition, few therapeutic gardens are accessible, particularly for individuals with reduced mobility (Wood, Polley, Barton, & Wicks, 2022). Despite its promise, garden therapy is still regarded as "an idea in pursuit of evidence" (Altman & Patel, 2021). It has yet to achieve the status of an evidence-based practice, which limits its inclusion in mainstream therapeutic interventions. Methodological weaknesses in current studies may further contribute to uncertainty about the robustness of existing findings (Clatworthy, Hinds, & Camic, 2013; Yun, Yao, Meng, & Mu, 2022; Choi et al., 2022).

Cultural resistance may also emerge when garden therapy does not align with the values and beliefs of service users. Mobilizing families and communities can play a vital role in shaping positive attitudes and encouraging acceptance of garden therapy. Involving stakeholders to raise awareness and promote its benefits is equally important. Despite these barriers, garden therapy remains a promising option that can be adapted within treatment facilities to support substance users in their recovery and healing. Addressing these challenges can substantially improve its implementation as part of regular therapeutic practice.

4.7. Garden Therapy with Other Therapeutic Interventions

Garden therapy has also been shown to complement traditional therapeutic approaches, contributing to holistic recovery. Cognitive Behavioral Therapy (CBT), widely recognized as effective in treating substance use disorders, can be reinforced by garden therapy, which provides practical opportunities for clients to practice coping strategies learned in sessions (McHugh, Hearon, & Otto, 2010; Boness et al., 2023; Park, Lee, Park, & Leeby, 2019). Motivational Interviewing (MI), which helps individuals modify harmful behaviors, can also be enhanced by reflective and nature-based practices (Smedslund, Berg, Hammerstrøm, et al., 2011). Similarly, mindfulness techniques practiced within garden therapy may help individuals cultivate the self-regulation skills necessary for sustained recovery.

Garden therapy has also been linked to positive outcomes when combined with art therapy, as both approaches foster creativity, emotional expression, and trauma healing (Rodecker, 2018). Mindfulness-Based Relapse Prevention (MBRP) further complements garden-based interventions by encouraging clients to acknowledge their thoughts and emotions during engagement with nature (Grant, Colaiaco, Motala et al., 2017). Family therapy, too, can benefit from garden environments: shared gardening activities can strengthen communication, reduce substance use, and improve family dynamics (Varghese, Kirpekar, & Loganathan, 2022). For example, creating a family garden as a safe space for dialogue may promote unity, peace, and mutual support. Collectively, these integrations suggest that combining garden therapy with established approaches significantly enhances recovery outcomes (Esteban, Suárez-Relinque, & Jiménez, 2022).

4.8. Implications for Social Work Practice

Garden therapy represents a multidimensional approach that can be incorporated into social work practice to address the complex needs of individuals struggling with substance misuse. It has been shown to reduce stress and anxiety, both of which are major challenges in recovery. Research demonstrates that exposure to green environments is associated with improved mental health outcomes (Araújo, Zanotta, Ray, et al., 2024). Nature engagement has also been linked to reduced cortisol levels, which supports recovery from substance misuse (Ewert & Chang, 2018). The process of nurturing plants allows individuals to redirect their focus away from cravings, while restoring a sense of calm, peace, and stability that may have been lost during addiction.

To maximize its effectiveness, social workers can integrate garden therapy into treatment plans by collaborating with local community gardens, acquiring horticultural knowledge through workshops led by experts, and motivating service users to participate in the ongoing maintenance of therapeutic gardens as part of their rehabilitation process. In this way, garden therapy can be positioned not only as an intervention for individual healing but also as a tool for family and community resilience.

5. Conclusions And Future Direction

Garden therapy represents an innovative therapeutic strategy within the field of social work, offering distinct advantages that address psychological, emotional, and social needs. Unlike traditional therapeutic methods that rely primarily on verbal communication, garden therapy engages multiple senses, encourages physical activity, and contributes to improved mood and reduced anxiety. Its significance lies not only in supporting mental health but also in fostering life skills such as patience, responsibility, teamwork, problem-solving, and cultural participation. Although questions remain regarding its effectiveness, the unique and multifaceted benefits of garden therapy are both evident and compelling.

To ensure the effective implementation of garden therapy within social work practice, pilot programs should begin with holistic needs assessments that identify the specific requirements of individuals with substance use disorders. Such assessments can inform responsive and tailored interventions. Professional development for social workers, particularly through training in nature-based therapeutic techniques, is also essential to build capacity. Equally important is the evaluation of pilot programs through systematic feedback from service users, as their experiences provide valuable insights into the benefits of garden therapy and areas for refinement.

The findings of this paper underscore the urgency of integrating garden therapy into social work practice to support individuals with SUDs in South Africa. Current gaps in its implementation contribute to persistent relapse rates, suggesting the need for innovative and sustainable interventions. Universities, particularly social work departments, should consider embedding garden therapy in their curricula to prepare future practitioners for diverse approaches to treatment. The Department of Social Development should also promote the inclusion of garden therapy across welfare organizations to strengthen the psychosocial functioning of service users.

At the policy level, revisions to the South African Drug Master Plan could incorporate garden therapy as a pilot initiative within social work practice, thereby improving recovery outcomes. Similarly, amendments to the *Prevention of and Treatment for Substance Abuse Act (Act 70 of 2008)* and the *Prevention of and Treatment for Substance Use Disorders Policy* should specifically acknowledge garden therapy as a viable intervention. Social work interventions could also be enriched by integrating natural and environmental theories, including the bio-psycho-social model, the integrated therapeutic system, and garden therapy, for application in individual, couple, family, and group counselling contexts.

Beyond its therapeutic value, garden therapy holds potential for addressing broader societal issues. In light of South Africa's high unemployment rate and ongoing food insecurity, therapeutic gardening can simultaneously serve nutritional and rehabilitative purposes by promoting community-based vegetable gardening. Furthermore, South African communities possess rich traditions in agriculture and healing, which can be harnessed to enhance garden therapy practices. The use of indigenous plants and traditional gardening methods, particularly medicinal flora, may significantly increase the cultural relevance and therapeutic impact of such programs.

In conclusion, while garden therapy is still an underutilized practice in South Africa, it offers a promising, culturally adaptable, and multidimensional approach to substance use recovery. Its integration into social work education, practice, and policy has the potential not only to reduce relapse rates but also to foster holistic well-being, strengthen families, and promote sustainable community development.

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Appendix

Table 1: An overview of the journal papers that were used for the study.

Author(s)/ year and country of publication	Scholarly document	Methods	Theoretical framework(s)
Parker (2020); UK	E-Book	Data analysis	N/A
Chan & Lei (2017); China	Journal article	Qualitative, focus group discussion	N/A
Stanford (2017); Australia	Journal article	Content analysis	N/A
Brunelli, Murphy & Athanasou (2016); Australia	Journal article	Qualitative, a systematic review, meta-analysis, data Analysis	N/A
Tracy & Wallace (2016); USA	Journal article	Existing systematic peer support reviews	N/A
López, Orchowski, Reddy, Nargiso & Johnson (2021); USA	Journal article	Content analysis	N/A
Olechowski (2024); South Africa	Grey literature	Research	N/A
Metze, Abma & Kwekkeboom, (2015); Netherlands	Journal article	Content analysis	Family Group Conferencing Model
Dijkstra, Latijnhouwers, Norbart & Tio (2016); Netherlands	Journal article	Online questionnaire	N/A
Strydom (2012); South Africa	Journal article	Quantitative, a self-administered semi-structured questionnaire,	N/A
The Children's Act (Act 38 of 2005); South Africa	Grey literature	Research	N/A
Zimba, Tanga & Ntshongwana(2023); South Africa	Journal article	Qualitative, in-depths interviews, thematic analysis	Crisis intervention perspective and the strengths perspective
Igamba(2022); South Africa	Grey literature	Research	N/A
Jason, Bobak, Islam, Guerrero & Light (2022); USA	Journal article	Qualitative	Statistical approach
McKay(2021); Philadelphia	Journal article	Data analysis, economic analysis, research assessment effects	N/A
Wood, Polley, Barton & Wicks(2022); UK	Journal article	Data analysis, recruitment, Interviews, focus groups	Holistic approach
Altman & Patel(2021); India	Journal article	Content analysis	N/A
Clatworthy Hinds, & Camic(2013); UK	Journal article	Literature review, data extraction and analysis	Attention restoration theory
Yun, Yao, Meng, & Mu (2022); China	Journal article	Questionnaire survey, correlation analysis	N/A
Choi, Dolgui, Ivanov & Pesch (2022);	Journal article	Content analysis	N/A
McHugh, Hearon & Otto(2010); USA	Journal article	Content analysis	N/A
Boness, Votaw, Schwebel, Moniz-Lewis, McHugh & Witkiewitz (2023); New York	Journal article	Content analysis, meta-analysis, sensitivity analyses	N/A
Park, Lee, Park, & Lee (2019); Korea	Journal article	Data analysis	N/A
Smedslund, Berg, Hammerstrøm, Steiro, Leiknes, Dahl & Karlsen (2011); Norway	Journal article	Systematic review	N/A
Rodecker, (2018); USA	Thesis	Qualitative	Applied psychological theory
Grant, Colaiaco, Motala, Shanman, Booth, Sorbero & Hempel (2017); USA	Journal article	Systematic analysis (meta-analysis)	N/A
Esteban, Suárez-Relinque, & Jiménez (2022); Spain	Journal article	Systematic review	N/A
Varghese, Kirpekar & Loganathan (2020); India	Journal article	Content analysis	N/A