

Activity: Plant Care Goal: Physical Populations: Other Specialized Populations

TH Activity Plan – Physical Exertion – Substance Use Addiction

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Photo by Living Color Garden Center



Materials

Garden space, garden beds,
areas for planting

Tools, gloves

ACTIVITY DESCRIPTION: Participants will engage in a variety of activities that are physical in nature as a strategy for coping with recovery from addiction.

THERAPEUTIC GOALS:

Cognitive/Intellectual: Work towards change in behavior & recovery

Physical: Increase physical exertion; improve standing, balance & endurance

Psychological/Emotional: Express stress & tension in healthy ways; use appropriate coping strategies to release anger &/or aggression; increase self-awareness

Sensory: Connect cognitive & emotional goals through sensory integration

Social: Improve social interactions including respect for others; practice setting healthy boundaries; share experiences with others

STEP-BY-STEP PROCESS:

1. **Pre-Session Preparation:** Determine what garden or plant tasks can be done on the day of the session. Prepare tools etc.
2. Facilitator begins session by identifying garden tasks that have a physical component, meant as introducing physical exertion as a coping strategy for individuals recovering from substance use addiction.
3. Depending on participants, facilitator may allow them to choose tasks they prefer, or tasks may be assigned. Safety and supervision of all participants is a priority.
4. Tasks may include digging new garden beds, creating or turning compost piles, propagating plants, planting/watering/weeding/harvesting plants, mowing lawns or other plant-based tasks.
5. Discussions related to physical exertion as a strategy for health, working toward changes in behavior, expressing stress in healthy ways and other topics integral to substance use recovery can be introduced.

APPLICATIONS FOR POPULATIONS: Programs working with people recovering from substance use utilize a variety of interventions, with research and best practice finding that a multi-modal approach can be effective. “Participants [may be] in various stages of personal and social recovery characterized by high risk of self-injury, suicidal thoughts, individual and collective moods swings, PTSD, anxiety, distorted self-worth, self-blame attitude, and narcissistic tendencies” (Polacova et al., 2023). Therapeutic horticulture can be one of these interventions, along with programs like The Twelve Steps, Building Healthy Relationships, Developing Life and Problem-Solving Skills. Activities with a strong physical component provide strategies for dealing with symptoms of addiction and withdrawal, a healthy alternative to other activities not as positive, and distraction from cravings or negative thoughts and actions (Wiginton, 2023). Exercise, considered to act similarly in the brain’s neural pathways as drugs, release chemicals like serotonin and dopamine. During recovery participants will more likely experience not only physical pain but trauma affecting how they relate to others, interpret how their body feels, and how much he/she can trust people (Harmony Bridge, 2023).

TH activities can include building compost piles, planting and harvesting vegetables and flowers, and construction of bird boxes. Depending on the site of delivery (residential recovery home, day program, hospital setting, public/community garden) the physical activities can be adapted to suit clients as well as garden space, outdoor locations and climate/seasonal activities outdoors. Research by Zhang & Liu comments that drug-dependent patients have low aerobic capacity, so using a TH intervention that includes aerobic exercise with moderate intensity, no competition between participants, and regular exercise, with at least 20-30 minutes duration is recommended (2022). Most substance use disorder interventions focus on individualized treatment however, using a TH program allows for some social interactions, some freedom of choice in activity selection, and the opportunity to shift from “reward behavior to habitual mode” (Malagodi et al., 2021). This health challenge is very complex, impacts individuals very differently. TH or other interventions may best be delivered in conjunction with other professionals from the addictions field. Poláčková et al. (2023) describe a TH program used in this capacity in a recovery home in Canada (p.47), this providing some validation for actual implementation. HT practitioner Silvia Yoshimizu-Yee’s article “[Program Delivery at a Therapeutic Horticulture Program for Women Recovering from Drug Addiction](#)” provides insights into this type of TH activity.

SAFETY CONSIDERATIONS: Facilitators are responsible for knowing poisonous and toxic plants and plant parts. Therapeutic services should be formally structured with extensive safety protocols, close supervision, and low staff: participant ratios. Careful consideration should be given to plant selection, plant toxicity and hallucinogenic properties, working tools and environments.

NOTES OR OTHER CONSIDERATIONS: Many individuals have nutritional issues from poor eating habits during their substance use period. Using TH to incorporate nutrition knowledge and the importance of vitamins for the body’s recovery can be done by growing vegetables, fruit, and herbs. Persons with substance abuse disorders are usually vitamin D deficient due to nighttime habits with limited exposure to sunlight. [Vitamin D plays a crucial role](#) in calcium absorption, bone health, and immune system function. Outdoor gardening can address vitamin D deficiency contributing to increased alertness, energy, and improvement in mood for themselves and the group (De Rui et al., 2014). Be aware that some medications may increase sun sensitivity.

If participants are taking medication like benzodiazepine, they can experience drowsiness and fatigue, which may make it more challenging to participate in physical activities. Medication such as opioids, can impair cognitive function, which may affect an ability to learn and apply skills and strategies taught in session. Methadone and similar medication can cause nausea and vomiting which may make it uncomfortable for individuals to engage in activities that involve handling plants or eating the fruits of their labor. Buprenorphine can cause headaches and muscle aches, which may make it uncomfortable for individuals to engage. Antidepressants may cause sleep disturbances or may affect an individual’s emotional state and ability to fully engage in the therapeutic benefits of horticultural therapy (Bisaga, 2022).

REFERENCES/ RESOURCES:

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- Edits were made for THAD purposes in 2024.
- TH Activity Plan form developed by Lesley Fleming, Susan Morgan and Kathy Brechner (2012), revised in 2024.