

Activity: Plant Care Goal: Physical Populations: Physical Disability

TH Activity Plan – Adaptive Gardening: Repetitive Motion Disorders

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Photo by Green Thumbs, Healthy Joints



Materials

Variety of tools, some with adaptive features

Potting bench, raised beds, foam wrap

Gloves, wipes

ACTIVITY DESCRIPTION: Participants will practice adaptive gardening techniques to cope with symptoms of repetitive motion disorders, including pain & swelling.

THERAPEUTIC GOALS:

Cognitive/Intellectual: Explore adaptive tools & techniques for personal use; normalize gardening tasks using adaptive approaches

Physical: Adapt gardening tasks to reduce pain & discomfort; increase level of functioning

Psychological/Emotional: Reduce concern for physical pain while gardening; promote greater sense of independence while gardening; reduce feelings of stigma due to adaptive tool use

Sensory: Enjoy greater access to plants, the outdoors & sensory experiences they provide

Social: Share experiences, tool suggestions with others; spend more time in the garden with others

STEP-BY-STEP PROCESS:

1. **Pre-Session Preparation:** Gather together tools and other session materials & prepare the garden work space.
2. Facilitator begins session by introducing session's goal - sharing a love of gardening and plants. To do this with the group of participants who have experienced pain etc. due to repetitive motion challenges, adaptive gardening tools & techniques will be introduced with people experimenting with them to find ones that work for them.
3. Facilitator introduces concepts of body positioning for tasks to ease challenges, then the key gardening tasks of reaching, bending, carrying, cutting, planting, weeding, & watering.
4. Bringing out a variety of tools, participants hold the tools, considering grips, handles, weight, telescoping reach, size and other features that may fit them best. Discussion of home "remedies" like wrapping tool grips with foam or tape, or purchasing ergonomic or lightweight kids' tools, will engage participants who can share their tips.
5. Going into the garden and trying the tools is optimal. For indoor programs, handling the tools will engage people, & provide hands-on try-outs. Bring containers of soil to mix and stems to cut indoors as an option.
6. Conclude the session asking for suggestions to alleviate or avoid repetitive motion or discomfort while gardening (e.g. shorten garden tasks - such as using several sessions to prune shrubs, using both hands, using wrist brace to keep it aligned (see tips below).

APPLICATIONS FOR POPULATIONS: Adaptive gardening techniques seek to reduce fatigue, pain, discomfort or inability to do garden tasks using a variety of approaches and tools. Many are based on physical and occupational therapy expertise, with ergonomics and universal design the underlying constructs. Gardening can provide joy,

allow independence, access to outdoors and fresh air, and opportunities to socialize and entertain. Most barriers to gardening can be addressed by trained HT/TH practitioners in workshops or TH sessions.

Physical challenges related to repetitive motion disorders (RMD) include carpal tunnel syndrome, bursitis, tendonitis, epicondylitis, tenosynovitis, trigger finger, or ganglion cyst. Most often occurring in hands, elbows, wrists and shoulders, typical symptoms and pain include tingling, swelling, loss of flexibility, strength and numbness. Using a TH session(s) to explore adaptive strategies for people with RMD can be fun and informative and help reduce the stigma for using adaptive tools and techniques.

Gardening tasks that involve repetitive motion include: weeding, planting, pruning, harvesting & carrying items.

Adaptive Gardening Ideas:

- ❖ Practice weeding using both hands
- ❖ Reduce weight of all items (tools, plants, soil bags)
- ❖ Reduce the number of repetitions of all tasks
- ❖ Stretch fingers, wrist, thumb, and shoulders before, during, and after gardening tasks as needed
- ❖ Take breaks & shorten work periods, intentionally doing tasks like pruning a hedge in smaller increments
- ❖ Use mid-size loppers instead of hand pruners, so that hand movement is relieved
- ❖ Use raised bed planter boxes ergonomically sized to reduce reach, shoulder strain
- ❖ Use arm brace with garden tool attached to relieve amount of strength required by hand
- ❖ Use fireman water spigot eliminating need to grab and rotate (open hand can swivel it)
- ❖ Explore using children's lightweight tools or spoons reducing weight and size of shovel head
- ❖ Use wagon to move plants, tools, and other items around the garden
- ❖ Plant fewer edibles so that harvesting (twisting wrist) is smaller task given that ripening occurs in short period of time requiring prompt harvesting
- ❖ Work in warm conditions; exposure to cold can exacerbate pain, swelling
- ❖ Experiment with how tools are held (velcroid to wrist, notice amount of bending/strain while using specific tools)
- ❖ Choose grips and handles with non-slip, cushioned or angled tool handles with properly sized grip

SAFETY CONSIDERATIONS: Facilitators are responsible for knowing poisonous and toxic plants and plant parts.

Assessment or understanding of participants is recommended so adaptive tools and strategies can be geared to the individual and to prevent pain or injury. Knowing their tolerances for tasks and pain, along with their level of interest, will benefit them in the session and gardening at home. Some tools have sharp edges, can cut thick materials, may be heavier than some can manage. Safety protocols should be in place for populations with dementia or intellectual disabilities who may participate.

NOTES OR OTHER CONSIDERATIONS: Training in HT/TH, specifically on adaptive gardening tools and techniques, will cover all elements which this short overview cannot. Training on specific physical diagnoses like RMD will allow the facilitator to best adapt sessions, tools and techniques to individuals. Encourage participants to pay close attention to pain, swelling, and tiredness before, during, and after gardening activities; this aids in participants' exploration of their tolerance levels and for planning tasks ahead of time. Often the most effective tool is a person's fingers and hands, suggesting that buying lots of tools may not solve some issues. A TH session like this one can provide an opportunity to try-out tools before purchase.

REFERENCES/ RESOURCES:

Morgan, S.C. (2019). Considerations and adaptations to safely accommodate program participants. In Haller, Kennedy & Capra (Eds.), *The profession and practice of horticultural therapy*. CRC Press.
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TH Activity Plan form developed by Lesley Fleming, Susan Morgan and Kathy Brechner (2012), revised in 2024.