

TH Activity Plan – Green Exercise – Dementia Populations

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ACTIVITY DESCRIPTION: Participants and care partners will increase their physical exercise outdoors, participating in green exercise.

THERAPEUTIC GOALS:

Cognitive/Intellectual: Practice following directions

Physical: Increase physical exercise including walking, bending, moving in & out of seated position; increase melatonin production from exposure to natural sunlight

Psychological/Emotional: Connect with nature in outdoor settings

Sensory: Utilize visual, hearing, smelling senses exploring joy, happiness

Social: Engage in socializing with others in a garden or outdoor setting

STEP-BY-STEP PROCESS:

1. **Pre-Session Preparation:** In conjunction with facility/medical staff, determine physical abilities of participants prior to green exercise.
2. Facilitator begins session by inviting participants, their care partners (if appropriate) outdoors into the garden (possibly a secured area).
3. Begin in an area with seating, not necessarily being seated but rather to identify rest areas. This may also be entrance/exit if needed.
4. In a small group lead participants through the garden on even paths. Many memory care facilities use paths in loops so disorientation is reduced. Encourage participants to walk around garden.
5. If appropriate, offer suggestions like stopping to look at bird feeder, touch a soft plant, look at a seasonal decoration in garden or other cognitively or sensory stimulating opportunities. Expand green exercises (see below) if participants are able.
6. Integrating watering plants, turning soil in a raised bed or wiping off seats can expand the physical dimension of this activity.
7. If appropriate, use a board/markers to count & encourage participants to walk a designated loop as many times as possible in that session or as cumulative activity over a week or month.

Materials

Sun protection

Chairs with arms & other safety features in gardens: ramps, railings, level paths

APPLICATIONS FOR POPULATIONS: Programs for people living with dementia require specific and thorough safety protocols (see next section). Depending on the stage of dementia, and each person's particular functioning abilities, activity facilitators will need to determine the safety requirements and health benefits for each green exercise session. The variability from day to day, and even within a given day, of each individual's mood, behavior and willingness to participate can vary greatly. However, everyone can benefit from time outdoors and whatever amount of physical activity is possible.

Walking in a garden or outdoor space is the easiest type of green exercise, possible at most facilities and circumstances. "Benefits of directed or informal walking activities include greater respiratory exchange and breathing in cancer fighting phytoncides (Li, 2010), increased physical exercise, and exposure to sunlight increasing melatonin production. When these are undertaken with people living with dementia, consideration

for safety should include possible disorientation, (space and shadow), unattended wandering and elopement” (Fleming, 2021). Many gardens in memory care facilities are “secured” with fencing, though this depends on the facility, type of residential unit/floor and the people living with dementia. Those in earlier stages may be integrated into senior living general population and not in more robust, secure areas. Gardens designed for people living with dementia often use a loop pattern for paths, this design element is meant to reduce disorientation. In cases where the green exercise does not occur in a secured plant-rich area, perhaps using pathways around the facility, attention for potential elopement is necessary. Care partners may not be able to provide complete supervision (or run or walk at fast speeds in case of elopement). Regularly making visits to the garden area and trying to walk the paths in the same direction will help some participants. Walking hand in hand can encourage socialization, help guide some, and provide a sense of safety. Some people with dementia have tendencies to grab onto others tightly; reasoning with them to release may be beyond their comprehension.

Green exercise can take many forms, this should be determined based on each individual’s physical and cognitive abilities. Other exercises, like lunging steps (big steps), bending over with support from table or chairs to inspect raised beds, raising arms overhead to touch birdhouses, getting into and out of chairs (with arms), chair exercises or chair yoga can expand physical exercise. Individual’s awareness of their own balance and strength may not be realistic and may be impacted by medications (dizziness) so involving staff in assessing these prior to activity is important.

SAFETY CONSIDERATIONS: Close supervision is required even if participants are escorted by their care partners or family members. Some facilities will have secured garden or green spaces. Be alert to opportunities and tendencies for elopement (pushing chairs against fence, unlocking latch gates, quickly moving through doors when other visitors are entering). Ideally there would be no toxic plants in the area. Tripping or other hazards should be removed (hoses on paths). In warm weather, water, sunscreen or other sun protection should be available. Participants may not realize or be cognitively aware of sun/heat exposure; this is the responsibility of the facilitator. No person should be left unattended in green space. It is recommended that two adults be present in case someone needs to leave the garden, visit the restroom, or go inside.

NOTES OR OTHER CONSIDERATIONS: The benefits in all health domains of having access to nature and getting outdoors are well documented. For people living with dementia, going outdoors is more challenging. Books by Cooper Marcus and Sachs (2016) and Pollock and Marshall (Eds.) *Designing Outdoor Spaces for People Living With Dementia* (2012) provide specific recommendations for gardens and outdoor activities for dementia populations. Mapes’ chapter in the book [Green Exercise and Dementia](#) (2016), as the title suggests, provides greater detail on this topic including evidence across physiology, ecology, sociology and psychology fields validating the benefits of green exercise for people living with dementia.

REFERENCES/ RESOURCES:

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