Developing A Gardening Program for Recreational Therapy Interventions

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Upon completion of this session, the participant will be able to:

• identify three benefits of using gardening as a Recreational Therapy intervention.

• discuss at least three standards of practice to consider when developing a garden program.

• describe at least 4 different community resources that can assist in implementing a garden program.
A few definitions:

• Gardening

• Horticulture

• Horticultural Therapy

• Dirt/Soil
Why do we garden?
Benefits of gardening

• Physical activity
• Reduced stress
• Healthy eating
• Improved mood
• Improved focus
Gardening statistics

• 2010 – 68% of US households (US Census Bureau, 2012)

• 2013 – 35% US households participated in food gardening (National Gardening Association, 2014)

• 2013- $3.5 billion (National Gardening Association, 2014)
Gardening Activity: Propagation

• ?
• Process
• Purpose
• Safety
• Goals/Objectives
History of gardening in therapeutic settings

- Ancient Egypt
- France, 1100 AD
- United States, 1812
  - Dr. Benjamin Rush, Philadelphia, 1813
  - Friends Hospital
- Menninger Foundation, 1919
Research on plant-human interactions.

• Restorative effect of natural views.

Improved mood & decreased heart rate

• Horticultural Therapy Program
  – Looked at healthy lifestyles
  – Improved mood can have + effects on cardiac rehabilitation
  – HT has been shown to reduce stress (BP, HR, cortisol levels)


• Bacteria in the soil releases serotonin

Lowry, 2007
Enhanced Cognitive Function

• Attention Restoration Theory (ART)
  – Concentration improves when spending time in nature.

• Nature, Sports, Urban
  – Natural setting showed highest levels of restoration vs. Urban settings showed the lowest
Increased social interaction

- 6-week Horticulture program and purposeful activity.
  - Improved Quality of Life
  - Group dynamic – accomplishment
  - Sharing – self-satisfying
  - Learning – rewarding opportunity
  - Sensory – contribution to well being
  - Creative – outlet for self-expression

Benefits of gardening with special populations

• **Cognitive Benefits:**
  – Enhance cognitive functioning
  – Improve concentration
  – Stimulate memory
  – Improve goal achievement
  – Improve attentional capacity

(American Horticultural Therapy Association, 2012)
Benefits of gardening with special populations

• Psychological Benefits
  – Improve quality of life
  – Increase self-esteem
  – Improve sense of well-being
  – Reduce stress
  – Improve mood
  – Alleviate depression
  – Increase sense of control
  – Improve sense of personal worth
  – Increase feelings of calm and relaxation
  – Increase sense of stability
  – Improve personal satisfaction
  – Increase sense of pride and accomplishment

(American Horticultural Therapy Association, 2012)
Benefits of gardening with special populations

- **Social Benefits**
  - Improve social integration
  - Increase social interaction
  - Provide for healthier patterns of social functioning
  - Improved group cohesiveness

(American Horticultural Therapy Association, 2012)
Benefits of gardening with special populations

• Physical Benefits
  – Improve immune response
  – Decrease stress
  – Decrease heart rate
  – Promote physical health
  – Improve fine and gross motor skills and eye-hand coordination

(American Horticultural Therapy Association, 2012)
Working with Children

• Children with intellectual disabilities showed improvement in sociality after taking part in a horticultural therapy program (Kim 2012).

• Children with behavioral disorders experienced the pride of accomplishment, practiced teamwork, coped successfully with a long delay in gratification for their efforts and learned certain basic principles of botany and reproductive biology (McGinnis 1989).
Research

• Children who are obese were able to improve their BMI classification after taking part in a 7 week program (Castro 2013).

• Child cancer survivors taking part in a gardening program improved fruit and vegetable consumption (Blair 2013).

• Some research is showing that bacteria in the soil releases serotonin, elevates mood and decreases anxiety (Therapeutic, 2011).
Supportive Environment Theory
Standards of Practice for Gardening Programs

• Health, cultural, economic, social, and educational background

• Participant first

• Group participation and social interactions

• Activity modification

• Activities that address cognitive, affective, psychomotor, and psychosocial functioning
Standards of Practice for Gardening Programs

- Activity selection based on need
- Integration
- Development of horticultural skills
- Community resources and opportunities
- Goal-oriented treatment
- Evaluation and Documentation
Issues to consider when planning

- Sensory issues
- Nature
- Noise
- Tools
- Plants
- Materials
- People
Nature

- Sunburn
- Medications
- Backup activities
- Allergies
- Insects/pests
Noise

• Think about where you plan your garden.

• Loud sounds may startle.

• Plant green walls to cut down on road noise.
Tools

• Teach tool safety.
• Use adaptive tools when available for specific populations.
• Make a list of any tools you are using in your program.
  – Keep a count sheet.
  – Count before and after each session.
  – This will insure any sharps that could be used to harm participants are managed and secured.
Ergonomic Tools

• Studies of ergonomically labeled hand trowels
Plants

- Know that plants can cause skin irritations.
- Use gloves.
- Choose plants that don’t have sharp leaves.
- Do not use poisonous plants in your program.

Here are some links to poisonous plant information:
Materials

• Know what is in the materials you are using!

• Visit the websites of companies who make the materials you use and download their MSDS sheets.

• This information can be vital if an accidental ingestion or exposure to a product.

https://www.osha.gov/chemicaldata/
http://www.preen.com/msds
MSDS

• Know what is in your materials!

Garden beds

• In-ground verses raised?

https://www.youtube.com/watch?v=jA9n3cc-3Fs


Garden beds

http://www.universaldesignstyle.com/wheelchair-accessible-gardens-gardens-humanity/

http://www.ag.ndsu.edu/plantsciences/research/gardens/areas

Scenarios and Risk Assessment Activity

• Scenario 1 – Rooftop garden for patients with TBI
• Scenario 2 – Garden at Alzheimer's/Dementia unit
• Scenario 3 – Garden program for incarcerated youth

Questions to ask:
Potential for harm, Level of Risk, Precautions
Scenarios and Risk Assessment Activity

• Scenario 1 – Rooftop garden for patients with TBI

Your facility has just opened a brand new rooftop garden. It is located on the third floor of your facility. The garden is beautiful with many ornamentals, flowers, shrubs and trees. There is a wall about 7 feet tall that surrounds the garden area. The garden has river rock laid out in a path through the garden. Your clients are individuals who are recovering from a traumatic brain injury.

What are your concerns with this space?
Scenarios and Risk Assessment Activity

- Scenario 2 – Garden at Alzheimer's/dementia unit

You work at Alzheimer’s/Dementia facility. Your garden is a secured garden courtyard. Residents can come in and out of the garden as they wish. The garden designer built a trellis that casts strange shadows along the paths. The raised bed is made of brick material and is about 5 feet tall. There is an unlocked tool shed for garden trowels, hoses, and pruners.

What are your concerns with this space?
Scenarios and Risk Assessment Activity

• Scenario 3 – Scenario 3 – Garden program for incarcerated youth

You work at a juvenile detention facility. The juveniles in your unit have had violent tendencies in the past. You want to start a garden program but are concerned about safety. You want to teach them how to propagate plants.

How can you lead this activity without risking your safety?
Resources

• Master Gardeners
  – Volunteers
  – Garden knowledge

• Extension
  – Every state
  – By county
  – Manage the Master Gardener Program

• AgrAbility
  – http://www.agrability.org/
Adaptive tools

Take a few minutes to explore the following sites and learn what tools may be available to help your program.

- http://www.greenherontools.com/products_all.php#erg
- https://www.radiusgarden.com/
- http://www.lifewithease.com/garden.html
- http://thehelpfulhand.com/products.html - hand grip
- http://www.carryongardening.org.uk/shop/ - UK organization, list by task and disability
- http://disabilityworktools.com/
Resources

• Horticultural Therapists

• Landscape Architects

• American Horticultural Therapy Association
  – www.ahta.org
Go Grow!

For more information or questions don’t hesitate to contact me.

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References


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