

# THE PROVISIONING PROJECT

THERAPEUTIC  
HORTICULTURE  
FOR COMMUNITY  
RESILIENCE

AUGUST 2025



University of  
Michigan

School for Environment & Sustainability  
School of Social Work

Washtenaw County  
Community Mental  
Health

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## Nurturing Growth, Together



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# Key Terms & Concepts

**Provisioning:** The action of sustainably using natural resources to provide for the tangible needs of one's self and others

**Gardening:** The cultivation of plants in a designated space.

**Subsistence Farming:** Growing food to fulfill the needs of the household with little left over for sale.

**Horticultural Therapy:** A specific form of gardening therapy requiring master's level certification

**Therapeutic Horticulture:** The use of plant-related activities to achieve therapeutic goals

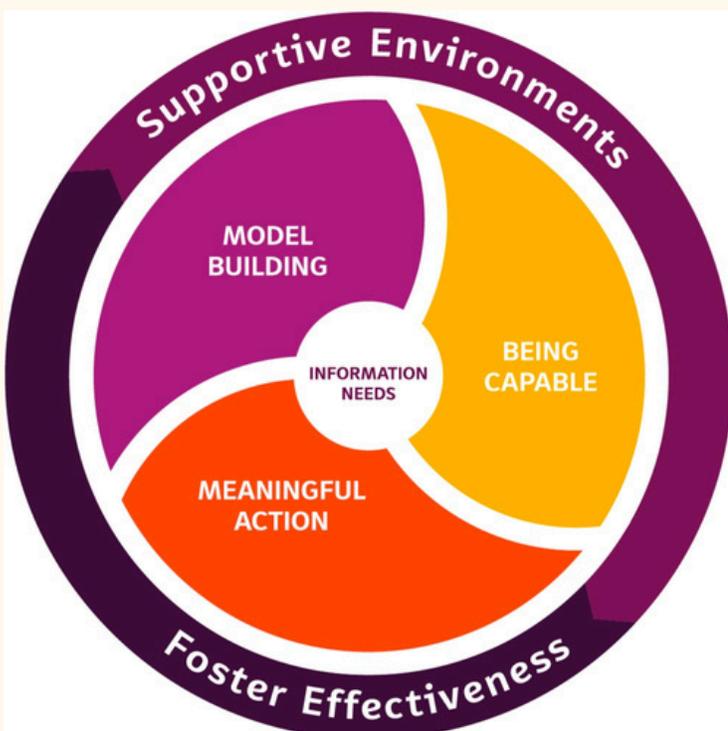
**Environment:** The physical, virtual, or social context in which behavior occurs

## Supportive Environments for Effectiveness (SEE)

SEE is a framework (formerly known as the Reasonable Person Model) that can support long-term behavior change from the perspective of our *informational needs*. Durable change can be fostered by supportive environments that promote:

- Increased understanding through exploration, individually and collectively, to help build mental models of the world around us.
- Feelings of competency and clear-headedness to complete tasks.
- Engaging in actions that have meaningful impact for ourselves and others.

Together, these elements create a supportive environment for sustainable change. The SEE framework was used to inform and shape the recommendations contained within this report.



Find more information at

[reDirect.org](http://reDirect.org)

# AN INVITATION TO THE GARDEN

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A garden is a provisioning space that fosters exploration and growth. As we engage with this supportive environment, we cultivate important elements to meet our innate needs. The Supportive Environments for Effectiveness (SEE) framework uses an integrative approach in which three elements work together to **foster change** (Kaplan & Kaplan, 2011).

- Being Capable: Building skills & competence through the practice of skills, such as planting and harvesting.
- Building Understanding: Expanding our knowledge of ourselves and our world through interactions with our natural environment
- Meaningful Action: Authentic engagement that cultivates meaning and purpose

The garden is also a space in which individuals can **find healing** from the demands of life. The scientist E.O. Wilson (1986) describes our deep affiliation for nature and other living things as *biophilia*. We are innately drawn to find beauty in our natural environment.

Humans are not just attracted to nature, though; humans are nourished by nature. Attention Restoration Theory (ART) describes how we can use natural environments to restore our limited attention in this modern world (Basu et al., 2019). The garden provides a restorative environment for clients to replenish mental resources:

- A space away from daily demands and stressors
- Natural elements that gently draw our focus without taxing out mental resources
- An immersive experience with opportunities to explore
- An environment aligned with participant needs for restoration and/or engagement

# Gardening & Mental Health

Therapeutic horticulture serves clients through cultivating hands-on gardening skills and mental health support within a natural setting. This approach empowers and engages clients within their local food system, teaching them how to grow produce and nourish their relationship with the land, themselves, and one another.

## Research Findings

Long before the birth of modern science, nature has been closely associated with the human experience. Recent research is beginning to uncover just how integral a relationship with nature is for our mental health and wellbeing.

As noted by Marseille et al. (2019), spending time with others in nature is associated with improved well-being:

- A reduction in perceived stress, depression, and negative affect
- An increase in positive affect and mental well-being.

Gardening offers additional benefits to those found by simply spending time in nature. When we cultivate a healing relationship through engaging in the growing process, we promote mindfulness and nurturing self-care, as well as a positive relationship with food, our bodies, and a recognition of the beauty of imperfections (Curzio et al., 2022).

### Support for Treatment of:

Dementia  
Paranoia  
Depression  
Anxiety  
Cognitive Impairment  
Sleeping Disorders  
PTSD

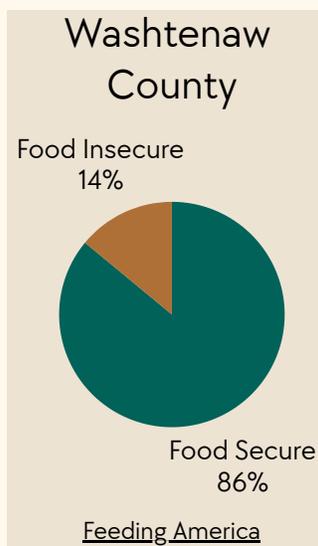
(Pantiru et al., 2024; Detweiler et al., 2015)

.Gardening activities are further associated with the following benefits:

- Improved physical health, lower blood pressure (Xiaoyi et al., 2024)
- Increased relaxation, focus, and feelings of comfort (Xiaoyi et al.).
- Positive effects on interpersonal relationships, social behavior, and self-esteem (Pantiru et al., 2024).
- Overall increase in well-being and quality of life for both generable and vulnerable populations (Pantiru et al.)

## Gardening as Activism

Client populations often have limited access to fresh produce and land for engaging in gardening and other food provisioning activities. Furthermore, Feeding America (2023) reports that 14% of Washtenaw County residents are now considered food insecure, rising from 12.5%. This comes among rapidly shifting federal policies that are negatively impact local food programs. As such, we are centering environmental justice themes within our work by filling this gap in food access and empowering our consumers through active participation in the gardening process.



By integrating ecological messages within gardening activities, we can illuminate our connection with nature and how our actions can benefit the world around us. The therapeutic horticulture approach seeks to build client skills within a supportive setting, while also engaging in pro-environmental behavior. Building local systems of social support, food economies, and information sharing will increase our ability to effectively navigate long term change. Through empowering our clients and addressing environmental and social justice within our mental health initiatives, we can cultivate a more holistic resilience within our communities.

# Garden Group Pilot Program



## Pilot Program Summary.

The Garden Group was a pilot program created in collaboration with the Life Enhancement Group (LEG) at Washtenaw County Community Mental Health. This group included 15 participants with intellectual and developmental disabilities (IDD) and ran for 6 sessions in Spring/Summer 2025.

# Gardening with a Purpose

The Garden Group serves clients through cultivating hands-on gardening skills and mental health support within a natural setting.

This group empowers and engages clients within their local food system and one another, teaching them how to grow produce and nourish their relationship with the land, themselves, and those around them.

## Group Goals

Participants in this group develop practical gardening skills while fostering a meaningful connection with nature through hands-on, experiential engagement. The **Supportive Environments for Effectiveness (SEE) framework** (Kaplan & Kaplan, 2011) cultivates a rich foundation for growth through engaging participants in **meaningful action**, helping them **become more capable**, and **building understanding**.



### Meaningful Action

Co-creating opportunities for authentic participation and meaningful change-making in our community

### Being Capable

Reinforcing self-efficacy and competence through the development of skills and self-awareness

### Building Understanding

Broadening our knowledge through exploration, learning from others and our environment as we engage in new experiences

# STRUCTURING A LESSON PLAN



Each lesson is structured around one cohesive theme that interweaves three fields of knowledge: ecological, horticultural, and mental health. Lessons are centered around building hands-on skills through a main activity.

**Mindfulness:** Lessons can be introduced with a quick mindfulness exercise, such as a simple feelings check-in. For this activity, each participant in the group shares a feeling or two that they are experiencing in that moment. Mindfulness sets a welcoming environment and can help ground participants in the moment before moving into the main lesson.

**Story:** From there, the main theme of the lesson can be introduced using a story or a metaphor. This increases accessibility and supports learning for participants. (Kearney, 1994). For this garden group, we chose adapted summaries of stories written by Robin Wall Kimmerer (2013) in the book [Braiding Sweetgrass](#).

**Reflection:** Following the story, the facilitator might offer reflection questions that draw on key takeaways, such as “How do you offer gratitude to the world around you?” This is a good time to reference handouts, connecting the story to ecological, horticultural, and mental health takeaways.

**Main Lesson and Activity:** This time is used to teach a gardening skill, such as seed planting, often including a demonstration or physical props (e.g. samples of soil and compost). The activity can be very simple in structure (e.g. digging a hole and planting a seedling). Ensure all necessary tools and supplies are available and meet accessibility needs. As the group moves through the activity, encourage reflections on how this activity connects with ecology and mental health.

**Wrap up:** Before the end of class, invite participants to come back together and share a brief takeaway from our experience. This is often the most rewarding part, so dedicate at least 5-10 minutes for a final reflection.

# A SAMPLE LESSON PLAN

## Planting Seeds & Gratitude

### **Key Takeaways**

**Ecological:** Humans have a strong connection to nature that is nourished with gratitude.

**Mental Health:** Just like plants, we need care, connection, and patience to grow.

**Horticultural:** Compost, water, soil, and sunlight all work together to grow plants.

*Handouts to Include: Gratitude Journal Handout, Basic Plant Care Handout*

### **Welcome & Mindfulness** (10 minutes)

Objective: Introduce the theme of gratitude and grounding exercise.

**Facilitator Greeting:** *"Today we'll explore how planting seeds and gratitude connects us to the earth and one another."*

**Short story** Read "Skywoman Falling" script adapted from *Braiding Sweetgrass* by Robin Wall Kimmerer

### **Mindful Moment:**

- Lead participants through a grounding exercise, such as deep breathing while taking note of the pressure of one's feet upon the floor
- Invite participants to offer gratitude to the ground for providing support



**Main Activity: Seed Planting & Garden Lesson** (30 minutes)

Objective: Learn how soil, compost, water, and sun grow plants — and how we need things like gratitude and connection to help us grow. Practice planting seeds in trays using soil and compost.

**Short Educational Talk** (5 minutes)

- Visual aids or real examples: Cup of compost, garden soil, watering can, seedlings.
- Explain basic plant needs in simple terms:
  - *"Soil gives roots a home to provide support."*
  - *"Compost offers important nutrients for plants."*
  - *"Water hydrates plants for growth and survival."*
  - *"Sun provides warmth and energy."*
- Ask: *"What do you need to grow and be well?"*

**Hands-On Planting Activity** (25 minutes)

Set-up:

- Two stations (rotate or divide group):
  - a. Planting Table (raised for accessibility, soil + compost in tubs)
  - b. Watering & Labeling Station (cups, watering cans, popsicle sticks)

Each person:

- Mix compost and soil in a small pot or biodegradable cup.
- Plant 2–3 seeds (beans or sunflower — easy to handle and sprout quickly).
- Water gently.
- Write their name and a "word of gratitude" on the label.

**Facilitator Prompt:**

*"As you plant your seeds, think about something you're growing in your life. Maybe it's gratitude, patience, kindness, courage, or connection."*

## **Reflection & Closing Circle** (15 minutes)

### **Guided Reflection Prompts** (10 minutes)

Reciprocity and Relationship:

- *"Consider your relationship with the natural world. Like Skywoman, think of the seeds you've been given in your own life."*
- *"Reflect on how you can reciprocate these gifts. How can you nurture and give back to the earth in your own way? What are you trying to nurture and grow in your own life?"*

Closing Gratitude:

- *"Take a moment to silently express thanks for how nature has been important in your own life."*

### **Key Takeaway**

Ask each participant to share one thing that they learned during this lesson that they will carry with them as they leave.



# GATHERING RESOURCES

## Community Connections

(Near Washtenaw County, MI)

### [The Farm at Trinity Health](#)

The Farm at Trinity Health offers free Community Supported Agriculture (CSA) program and produce for qualifying residents. Educational programs teach science-centered lessons for accessible, engaging field trip opportunities.

### [The Imagine Center Farm](#)

An expansive farm located in Jackson County, Imagine Center Farm offers an immersive, hands-on experience for clients with intellectual and developmental disabilities (IDD). This farm provides ample opportunities to interact with farm animals, gardening, and construction projects using a strengths-based mindset.

### [Project Grow](#)

This local organization donated seedlings and seeds for our Garden Group pilot program in 2025. Project Grow also manages a larger community garden at Ellsworth location. Project Grow offers a local source of support for garden-related logistical questions and advice for garden plots.

## Online Resources

### **Therapeutic Horticulture Activities Database**

*University of Florida*

<https://hort.ifas.ufl.edu/therapeutic-horticulture-activities-database/>

### **Horticulture Therapy Workbook**

*Antioch University*

<https://www.antioch.edu/wp-content/uploads/2020/11/0411953horticulture-therapy-workbook.pdf>

### **American Horticultural Therapy Association**

<https://www.ahta.org>

### **Michigan Horticultural Therapy Association**

<https://michiganhta.org>

## TOOLS & SUPPLIES



### Participant Supplies & Considerations

It is recommended that participants of group provide their own sun protection and garden appropriate clothing. Hats and water bottles are important to have on hand for hot, sunny days. Having a cool area for participants to break from the heat and rehydrate can help prevent heat-related illness.

### Gardening Tools

Recommended hand tools include a set of pruners, trowel, hand rake (cultivator), and Japanese weeding sickle. There are many helpful standing tools, such as a stirrup hoe, traditional hoe, rake, shovel. A wheelbarrow is useful for moving compost and mulch.

A list of adaptive gardening tools can be found here:

[https://agrability.osu.edu/sites/agrability/files/imce/2024\\_September\\_garden\\_tools\\_handout\\_Ohio\\_AgrAbility.pdf](https://agrability.osu.edu/sites/agrability/files/imce/2024_September_garden_tools_handout_Ohio_AgrAbility.pdf)

### Additional Supplies

Other helpful supplies include a watering can, trays for planting seeds, soil, compost, mulch, and a supply of gardening gloves for participants.

### For Future WCCMH Garden Groups

**Tools:** Project Grow has offered use of their wheelbarrow and gardening tools located on the south side of the community garden at Ellsworth. There are some additional tools located in the greenhouse.

**Supplies:** Gardening gloves and plastic trays are stored in the greenhouse, but an additional can or two would be useful. Water must be hauled from the CMH kitchen. Soil can be purchased locally, and Project Grow offered mulch for CMH use on the south side of the dumpsters.

# PROGRAM REFLECTIONS

## Participant Feedback

"It takes away my depression and anger and turns it into something positive. It turned my day around."

"I feel like I can do things"

"Gardening is calming"

"I didn't think about my anxiety at all"

"Planting is relaxing"

In this pilot program, participants learned basic gardening and coping skills while building meaningful connections with nature and each other. The lessons in the Garden Group were rooted in mindful, experiential practice, emphasizing healing through hands-on engagement.

Members became more confident and engaged over time, from planting beans and herbs to nature journaling in the shade. At the end of each session, participants regularly described the experience as "relaxing," "calming," and noted the positive effects it had on mental health and relationships within the group. Throughout the course of this program, the garden became a space of resilience, connection, and growth.



# Provisioning Pilot Study



## Pilot Study Summary.

This study sought to understand how engaging in provisioning skills, such as gardening, impacts psychological well-being. 36 participants were recruited for this pilot study, half of whom had recently completed a provisioning skills course at a local folk school. These groups were then compared on measures of psychological wellbeing, meaning, and efficacy.

# What we measured

## Psychological Well-Being

Psychological wellbeing was assessed according to a six factor scale developed by Ryff & Keyes (1995)

## Meaning

This survey looked at whether those who took a course gained a greater sense of meaning, as well as whether greater meaning predicted an increase in wellbeing.

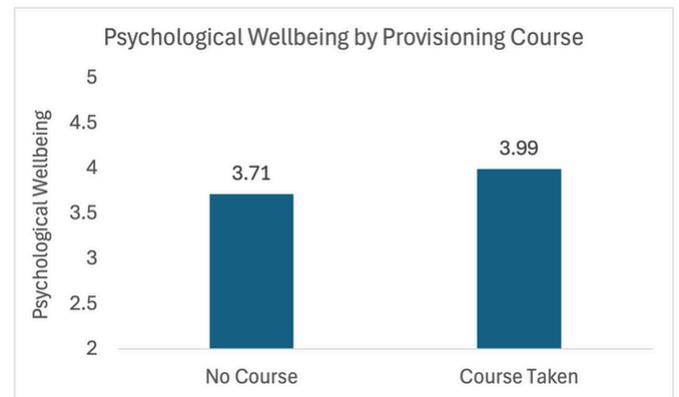
## Efficacy

Both individual and group efficacy were measured to assess whether course completion led to a greater sense of being able to do things alone or in a group.

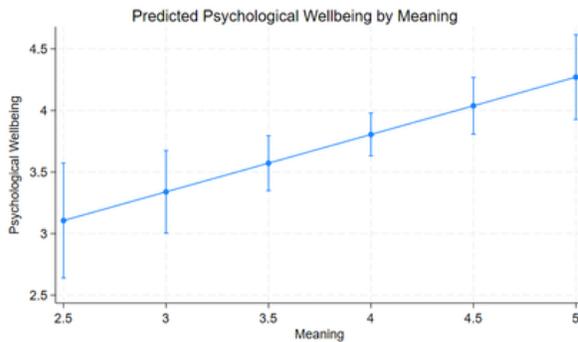
# What we found

## Psychological Wellbeing

Those who took a provisioning course tended to rate their overall psychological wellbeing as higher. This trend suggests higher wellbeing among course participants that could be explored in a larger study.



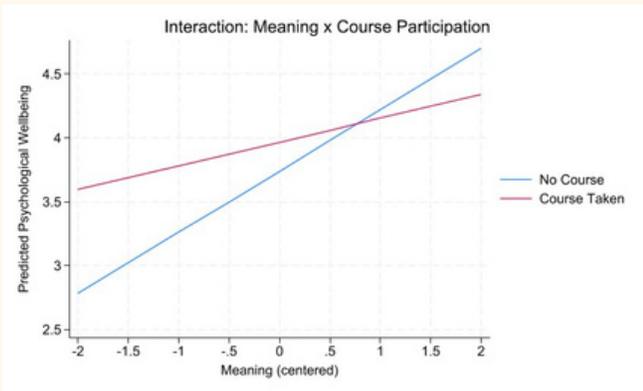
\*Trending towards significance at  $p < .1$ ,  $p = .088$



\*Significant at  $p < .01$ ,  $p = .005$

## Meaning

Meaning was found to be a significant predictor of wellbeing for all groups. As an individual's sense of meaning increased their psychological wellbeing also increased, regardless of course participation.



\*Interaction not statistically significant:  $p=.5$ ,  $R^2=.27$

### Meaning & Psychological Wellbeing

For those who did not take a course, meaning appeared to have a somewhat stronger association with overall wellbeing than for those who did. This may suggest that while the course may provide a boost to wellbeing, meaning might be an important driver of wellbeing for those who did not. It also suggests there may be important factors beyond meaning that contribute to wellbeing for those who have taken a course. Although this interaction was not statistically significant, the model explained a high amount of variance (27%), which could benefit from further research with larger samples.

## Measuring outcomes

| Psychological Construct | Psychological Well-Being                                 | Sense of Meaning   | Sense of Efficacy  |
|-------------------------|--|--|--|
| <b>Results</b>          | Trend toward increased wellbeing for course participants | <ul style="list-style-type: none"> <li>Statistically significant relationship between meaning and wellbeing</li> <li>Appeared more strongly linked among non-participants</li> </ul> | Individual and group efficacy measures were not statistically different for the two groups |

## Conclusion

These results suggest a trend towards greater psychological wellbeing for those who had taken a course when compared with those who had not. Meaning emerged as a statistically significant moderating variable for psychological wellbeing, with exploratory results suggesting meaning may have a stronger positive association with wellbeing among those who had not taken a course. While preliminary, these results highlight the importance of both meaning and provisioning skills in supporting psychological wellbeing and suggest they may be valuable components of resilience-focused interventions.

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