

# Introduction to Horticultural Therapy its Role and Application in Improving Body, Mind and Spirit

M.L. Chadha

**Former Director AVRDC- The World  
Vegetable Centre**

**Email** [madanchadha75@gmail.com](mailto:madanchadha75@gmail.com)





Horticultural therapy is a time-proven practice. The therapeutic benefits of garden environments have been documented since ancient times.

Today, horticultural therapy is accepted as a beneficial and effective therapeutic modality. It is widely used within a broad range of rehabilitative, vocational, and community settings



# Horticultural Therapy Worldwide: Background and History



Horticultural therapy is a relatively new discipline. The first formal training programs in horticultural therapy began in the United States in the early 1970s.

The professional field of Horticultural Therapy (HT) began in 1973.

In 1973 the Council for Therapy and Rehabilitation through Horticulture (NCTRH) was established by a group of horticulture therapy professionals.

In 1988, they changed their name to the American Horticulture Therapy Association (AHTA) which they are still called today.

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## **Horticultural Therapy Worldwide: Background and History cont...**

**Today, horticultural therapy is Practiced in many countries, such as Japan, South Korea, Israel, Singapore, Australia, Peru, Spain, China, Hong Kong, the United Kingdom, Germany, France, Italy, India and Sweden.**

**Many universities in these Countries have education programs and research in horticultural therapy.**

**Special laboratories have also been built, such as Alnarp Rehabilitation Garden at the Swedish University of Agricultural Sciences campus area in Alnarp.**





## Horticultural Therapy Worldwide: Background and History cont...

The United States and Canada offer professional registration and training in horticultural therapy through the American Horticultural Therapy Association and the Canadian Horticultural Therapy Association respectively

The Hong Kong Association of Therapeutic Horticulture, which was established in 2008, provides HT professional certification, with its first registered horticultural therapist accredited in 2011.



The Taiwan Horticultural Therapy Association was founded in 2013 and provides courses and accreditation for horticultural therapists

# **Horticultural Therapy Worldwide: Background and History conti...**

**Horticultural Therapy Association of Victoria was established in 1984; it offers opportunities for training and networking for horticultural therapists and other interested people in Australia. (Therapeutic Horticulture Australia,)**



**Horticultural therapy and therapeutic horticulture is also practiced in several countries such as India, China, the United Kingdom and Singapore, where no national associations have been established.**

**The National Parks Board Singapore offers therapeutic horticulture programs which are “suitable for elderly groups, persons with dementia and other special needs”.**

**Despite the different stages of development of horticultural therapy as a profession in various countries, practitioners all have a common goal of serving their clients.**

**Horticultural therapy is used in hospitals, schools, rehabilitation and care centers**



**Horticultural therapy** is a professional practice that uses plants and gardening to improve mental and physical health.

It helps improve **memory, cognitive abilities, task initiation language skills, and socialization.**

In physical rehabilitation, it can help strengthen **muscles and improve coordination, balance, and endurance.**



Canadian Horticultural Therapy Association (CHTA) defines Horticultural Therapy as: a formal practice that uses plants, horticultural activities, and the garden landscape to promote well-being for its participants.





**Horticultural therapy** is defined by the American Horticultural Therapy Association(AHTA) as the engagement of a person in gardening and plant-based activities, facilitated by a trained therapist, to achieve specific therapeutic treatment goals.



# What Are Therapeutic Gardens?

The term therapeutic garden describes outdoor gardens that include a variety of plants that are chosen for their aromatic and to enhance sensory stimulation.



The basic features of a therapeutic garden can include wide and gently graded accessible entrances and paths, raised planting beds and containers, and a sensory-oriented plant selection focused on color, texture, and fragrance that is designed to improve our mental and physical well-being. They are used to benefit not only the person recovering from an illness but also their family, friends, and caregivers.



# Therapeutic Garden Panchatatva Opens In Hyderabad's Indira Park in *November 2020*

Panchatatva garden with walkway is developed on five elements of the nature (Panchabhutas)

— earth, water, fire, air and ether.

The Panchatatva walk is a circular track developed using eight components to walk over this track. The components include: 20mm stone, 10mm stone, 6mm chips, river stone, rough sand, tree bark, black soil (Tank silt) and water.





**The walking is done from very hard paining surface to smooth and relaxing component by which the blood circulation in the body improves curing several ailments of the body. According to experts, panchatatva walk can control insomnia, improve eyesight, nervous system, immunity, help in hormonal issues, reduce inflammation, enhance cardiovascular activity, maintains blood Pressure, clears mind and improves mood.**





In recent years. Medical doctors, physical therapists, neurologists, and psychologists are becoming increasingly aware of the many benefits of interacting with nature through gardens and gardening activities.

## Five Types of Therapeutic Gardens to Heal the Body and Soul

- ▶ Healing
- ▶ Enabling
- ▶ Meditative
- ▶ Rehabilitative
- ▶ Restorative

# Healing Gardens

A healing garden uses horticultural therapy to enhance the **overall healing process**. These gardens incorporate fragrant and colorful plants & water features that **encourage physical, mental, and emotional healing in both patients and visitors**.



**For example, a healing garden can help Alzheimer's patients and those suffering from similar brain function disorders. Pleasant memories are stimulated through all five senses increasing the patient's overall well-being**



# Enabling Gardens

Enabling therapeutic gardens focus more on the physical recovery and condition of patients after a severe injury or traumatic event.

An enabling garden may even include professional training for work in the horticultural industry after recovery



Physical gardening activities improve confidence and restore mental balance as well as provide strength and coordination.



# Meditative Gardens

Meditative gardens often contain therapeutic garden plants that are beautiful and attract **birds, butterflies, or other peaceful wildlife** for the observant visitor to enjoy. These gardens encourage quiet, stress-reducing environments where difficult life events can be processed at leisure and to rejuvenate & restore emotional and psychological balance.





# Rehabilitative Gardens

**Rehabilitative gardens are unique in that they are not only for the healing of the gardeners but also for the environment. In areas where natural or man-made factors have damaged soil or created potential erosion issues, a rehabilitative garden can help bring communities together for both social and environmental healing. Therapeutic garden plants can include natural species as well as more traditional garden occupants.**



# Restorative Gardens

Restorative gardens are planned around the idea of relieving stress and restoring calm to shattered nerves after traumatic events.

Are designed to create easy walks or private repose areas as visitors seek physical & mental healing. Users can enjoy calming, natural plant.

Some healing benefits of restorative gardens horticultural therapy include:

- Increased muscle strength
- Improved coordination
- Improved balance
- Greater endurance
- Greater Problem solving skills
- Increased social skills
- Increased ability to follow directions





**Before incorporating any plant into the therapeutic garden, research the plants' potential toxicity and safety hazards and determine if they are appropriate to use.**

**Fragrant Plants:** Plants with scented flowers and foliage **provide opportunities to engage in exploring their sense of smell.** Fragrant plants **include rose, lavender, rosemary, lilac, chocolate cosmos, lemon balm,, pine trees,** and much more. One likes to use a collection of mints, – ideally in containers.



**Edibles:** Edibles include herbs – such as basil, cilantro, thyme, and more, – fruits like **citrus and pineapple, vegetables including tomatoes, peppers, carrots, and leafy greens.**



**Seasonal Annual:** **Incorporating annuals provides a continuity of seasonal activities** in the garden. For example, pansies, marigolds, sweet potato vine, and seasonal bulbs like tulips. Also recommends shade- and sun-loving cultivars for their easy propagation and variety of leaf colors and textures.



Pink muhly grass

**Ornamental Grasses:** **Ornamental grasses gracefully respond to the breeze and often add a soft texture and sound to gardens.**



**Wildlife Friendly Plants:** Incorporate plants, especially native plants, that are known **to attract pollinators and other forms of wildlife.** Sunflower, dill, fennel, and many more are great options

# Definition of a Horticultural Therapist

Horticultural therapists are professionals with specific education training, and credentials in the use of horticulture for therapy and rehabilitation.



Horticultural therapists have a foundation of knowledge in plant science, human science, horticultural therapy principles and experience in the application of horticultural therapy practices.



**Horticultural therapy (HT) programming**, can be used as one method to “**a more natural, effective, and chemical-free pathway to wellness.**”

Horticultural activities also serve as a source of **relaxation, enjoyment, accomplishment, satisfaction and affirm** that **people need a good relationship with nature to lead healthy lives.**

It is not an overstatement that the field of horticultural therapy (HT) changes **lives of both the therapist and those they serve.**



# Horticultural Therapy Program

There are three types of horticulture therapy programs:

1. Vocational,
2. Therapeutic, and
3. Social.

**1. Vocational programs work to develop skills and characteristics that will lead to employment.**

Can include rehabilitation as individuals recover from injury, illness, or disability. People undergoing therapy can learn skills involving greenhouses, vegetable gardening, tree and shrub care as well as learn about plant production, sales and services.

Vocational horticulture therapy teaches people how to grow and work with plants, learning the benefits of supporting themselves mentally and financially.



## **2. Therapeutic programs**

that therapeutic horticulture are designed to assist with recovery with the goal of wholeness and healing with focused on enhancement and mental fitness. The belief is therapy revolves around in nature has restorative properties.

## **3. Social programs**

are focused on gardening as a leisure activity that supports general well-being.

**Social and therapeutic horticultural** is the process of using plants and gardens to improve physical and mental health, also benefits people with many different disabilities, including those recovering from stroke and heart disease, blind and partially sighted people, those in the early stages of dementia and people with physical and learning disabilities.

# ***Horticultural Therapy Methods and Applications:***

**Discovering new ways to enrich nature and garden activities for people of all ages and abilities.**



**Horticulture therapy is the use of plants and the natural world to improve the social, spiritual, physical, mental, and emotional well-being of individuals who participate in it.**

**Conti.....**



# Some example of horticultural therapy activities include the following:

- Hands-on propagation of plants, seasonal planting, bulbs and seeds
- Potting up seedlings
- Observations of gardens, plants
- Flower arranging
- Learn how to prune shrubs, plant cuttings,
- Design your dream garden/home gardens
- Smell-and-tell sessions, touch-and-identify, familiar flowers, plants, fruits, & herbs
- Nature crafts, e.g., pressing foliage, flowers
- Garden club discussion groups (e.g., recalling past gardens, seasons, learning names of plants)
- Community outings (e.g., visiting public parks and gardens.



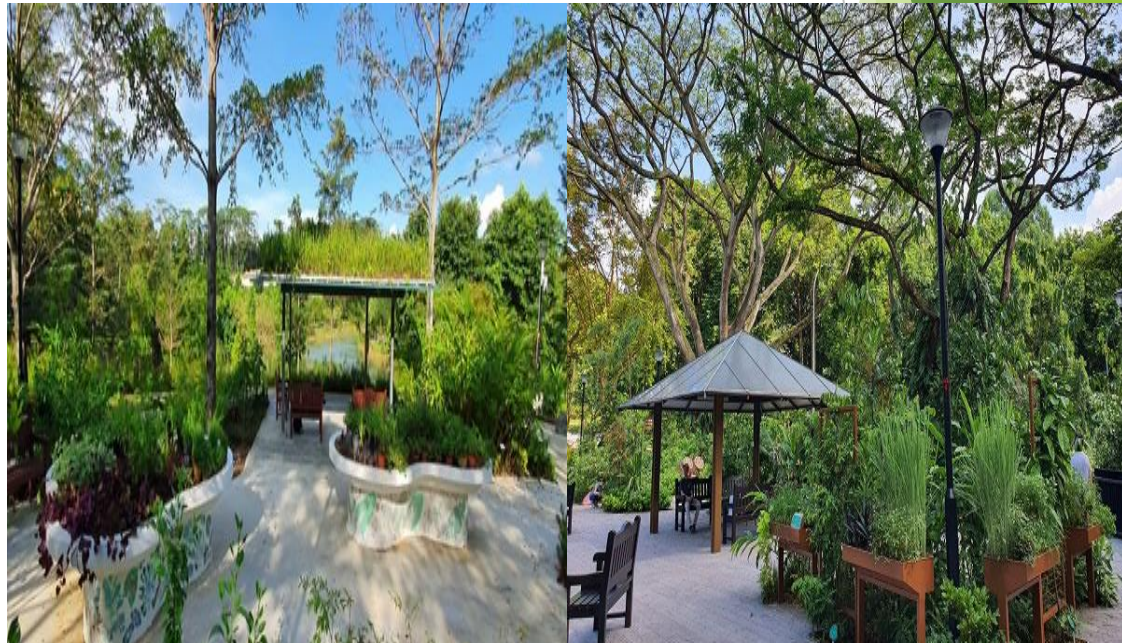
**Output: *Increase physical strength, stamina, and flexibility, Learn stress management and relaxation techniques.***

**Horticulture therapy can take place in many different settings, both indoors and outdoors.**

**From digging in a garden, to sitting on a bench in a park, to working with potted indoor plants, to doing activities with a licensed horticultural therapist, and many more.**

**Use of a safe outdoor garden may reduce the rate of falls for frequent users, as compared to infrequent or non-users**

**Gardening and spending time outside can have many positive benefits for our mental, physical, social, and emotional health.**





# Why is gardening so peaceful?

Researchers found that bacteria found in the soil actually helped activate brain cells that could produce **serotonin**.

Allow yourself 15-20 minutes to open to the experience of connecting with nature and you will find a positive shift in mood, lessen depression, anxiety, loneliness, and stress. and a sense of enjoyment



# The Benefits of Horticultural Therapy (HT) Programs

Research shows that there are many benefits of HT



**HT improves mood, increasing social participation and promoting healthy interpersonal relationships.**

**It also Improves, cognition, alertness, concentration and lowered chronic stress, which can reduce the ability to learn and remember.**

Conti...



**Horticultural Therapy promotes emotional growth which improves self-confidence and self-esteem.**

**Reduces stress. engaging in gardening activities and interacting with nature reduces stress and lowers levels of the stress hormone cortisol.**

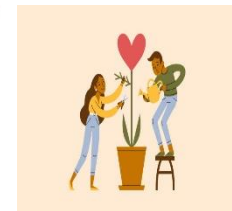
**But research shows that horticultural therapy can also help the body learn to respond better to stress, reducing its negative effects like increased heart rate & blood pressure.**

**Gardening improves coordination and balance, and muscle strength too through activities such as digging, careful pruning, weeding and gardening becomes a hobby that brings great joy and peace.**

# Home gardening: for great physical activity

- A great, low-impact exercise: Doctors suggest 30-60 minutes of low to moderate intensity physical activity per day for a healthy heart and weight.
- Typical calories burnt (in adults) for 30 minutes of:

- Watering the lawn or garden – 61
- Mowing (push mower) – 243
- Trimming shrubs – 182
- Raking – 162
- Planting seedlings – 162
- Planting trees – 182
- Weeding – 182
- Digging, spading, tilling – 202





# Home gardening : for Mental, Emotional, and Social Well-being

- Can be an escape from stress and an ideal place for relaxation - cheapest, healthiest, keenest pleasure
- Family works together and ties strengthen
- Saves money; the value of the produce you grow yourself is around 20 times the value of the material costs. People take up gardening to grow and harvest fresh fruits, vegetables, flowers, and rewards, such as aesthetic pleasure, restoration.
- Provides a link to nature, and a sense of satisfaction from receiving the direct benefits of hard work: "Better food, better health, better living-- all these the home garden offers in abundance.



**Horticultural therapy** serves many vulnerable populations through psychological processes as natural environments and their elements can act as a distraction, reducing stress and anxiety and promoting health and well-being.

For example, prior research demonstrated that viewing nature through a window had physiological and psychological healing benefits postoperatively for patients who viewed the canopy of a large tree from their hospital beds, compared to those who viewed a brick wall.

Being in nature or viewing plants and gardens through a window or in pictures provides relaxation and restorative benefits.

– numerous studies have reported that being in view of nature, gardens, and plants helps regulate emotion, lowers stress levels, and fosters improved mood.





# Who Can Benefit From Horticultural Therapy?

People of all ages and abilities including families and caregivers.

**Horticultural Therapy (HT) can help those who feel;**  
**Depressed, Anxious, Socially isolated, Overwhelmed with life responsibilities, Unbalanced, Hopeless, Loss of power and control**

**HT can help those who live with;**  
**Cognitive challenges, Physical disabilities, Sensory limitations, Emotional imbalances**

**HT can aid in the process of recovery from:**  
**Addictions, Loss, Life Changes, Physical injury, Abuse**

**Those who participate in HT feel:**  
**Empowered, Inspired, Competent, Grounded, Full and balanced, Reconnected, A sense of belonging, A sense of accomplishment, Self-confidence, Developing new skills, Increased vocabulary and communication ability and Time outdoors promotes overall well-being.**



# Effectiveness of Horticultural Activities and Future Directions:



**Horticultural therapy is fast becoming a vigorous profession.**

- Research social interaction and communication has found the benefits of rehabilitation through horticulture are enormous.

**While evidence describes horticultural therapy as an appropriate to treat a range of conditions and to improve overall wellbeing in older adults, to date there are few controlled clinical trials.**

- More randomized controlled trials and other rigorous systematic analyses of the therapeutic benefits of horticultural therapy, and as compared to other therapies, is needed.

**It is important to rigorously examine the benefits of horticulture therapy and incorporate them when they are working with patients.**

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**-Additionally, there is a need to collaborate with policymakers, government, educators, researchers, hospitals, retirement homes, public, and non-profit organizations and help people who need horticulture therapy but are not aware of the benefits.**

**Horticultural therapy uses the activities such as gardening, plant propagation, plant care, visits to natural environments and gardens and parks etc. in personal development; a feeling of well-being, improve physical health and encourage social interaction.**

**We all benefit!**

**Horticultural therapy helps: Those rehabilitating from surgery; Prison inmates to find new directions and purpose; People with mental health disorders.**

**-Horticulture therapy helping people develop social skills, improve physical mobility, and regain confidence.**

**It is slowly but surely becoming more widely recognized as an efficacious form of therapy- A magical Therapy for Healthy Life.**

# Conclusion and take away benefits of HT

## BENEFITS OF THERAPEUTIC HORTICULTURE

### COGNITIVE

- Improve concentration
- Improve attention span
- Stimulate memory
- Achieve goals

### PHYSICAL

- Improve immune system
- Decrease Stress
- Improve eye-hand coordination
- Improve fine and gross motor skills

### PSYCHOLOGICAL

- Improve sense of well-being
- Increase sense of control
- Increase sense of pride and accomplishment

### SOCIAL

- Interaction within a group/community
- Improve social skills
- Practice communicating
- Learn cooperative skills



# **Thank you...from MCSHVF : Your partner**

**in Horticultural Therapy and awareness against pesticides residues /abuse effecting consumers health. Encouraging Safe & healthy vegetable production through Home/Kitchen /school/market gardening**



**Madan Chadha**

**Safe Healthy Vegetable Foundation (MCSHVF)**



**Dr. M. L. Chadha**  
**Founder Chairman , MCSHVF**  
**Former Regional Director Africa &**  
**South Asia**  
**AVRDC- The World Vegetable Center**

**Email: [madanchadha75@gmail.com](mailto:madanchadha75@gmail.com)**

**[www.safevegetables.com](http://www.safevegetables.com)**

