

# Horticultural Therapy for the Mind and Body

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"Patients who have sustained spinal cord injuries and brain injuries respond to the opportunity to be around plants and other people and share the common interest of growing plants and caring for something," says Mattie Cryer, horticultural therapist, Craig Hospital. Photo courtesy of Craig Hospital

**Is it any wonder** that the fragility of mental health is in the spotlight perhaps more today than ever before? Personal setbacks, economic uncertainty, national crises, and global calamities can take a toll. COVID has had a lasting and significant impact on our sense of well-being, with shifts in school systems, workplace cultures, and daily routines. According to the National Institutes of Health, one in four adults suffers from mental illness, with depression and anxiety being the most common disorders. Women are almost twice as likely to suffer from major depression as men.

The silver lining is that the pandemic brought increased awareness to mental well-being, helping to destigmatize it and leading to more open conversations. After being isolated for so long, we experienced profound relief and joy getting out in green spaces again. It also launched a new appreciation and interest in horticultural therapy (HT).

The American Horticultural Therapy Association defines therapeutic horticulture as "a process that uses plants and plant-related activities through which participants strive to improve their well-being through active or passive involvement." Benefits include helping to lower blood pressure, decrease pain and the need for pain-relieving medication, and decrease stress, anxiety, and depression, as evidenced through a compilation of research gathered by the National Library of Medicine. HT is increasingly used in hospitals, community and botanical gardens, assisted living and senior centers, correctional facilities, and vocational, occupational, and rehabilitation programs, and schools.

One such place is Wilmot Botanical Gardens, part of the College of Medicine Healing Gardens and Teaching Laboratory at the University of Florida (UF). As both a registered horticultural therapist and a licensed landscape architect focused on healing gardens and therapeutic design and programming, Elizabeth "Leah" Diehl, director of therapeutic horticulture at Wilmot Botanical Gardens, is passionate about the value of HT. She witnesses its remarkable success every day. "The thing that's so fantastic about HT is that there are so many ways for it to be beneficial, no matter if someone is struggling with mental illness or cognitive or physical disability," she notes.

Diehl has overseen a variety of programs and research projects at Wilmot, including a pilot study on alleviating chronic lower back pain. Seven people experiencing pain—and anxiety that movement might trigger more back pain—participated in gardening activities. The findings: a reduction in anxiety, and an increase in spine flexion and rotation. "It was an exciting project in the sense that there were physical and mental benefits," says Diehl. "The key to HT is that it is a holistic practice."

Another intriguing study was conducted by Diehl and colleagues with UF students who participated in weekly therapeutic horticulture activities to help them manage stress, anxiety, and loneliness. They learned about plants and how interacting with plants can be beneficial for lifelong wellness. The findings? Students who participated in horticultural sessions over the course of a semester had a statistically significant decrease in stress, depression and anxiety



An environmental horticulture student teaches therapeutic horticulture participants how to create an air layer in a croton plant. Photo courtesy of Leah Diehl, director of therapeutic horticulture at Wilmot Botanical Gardens.

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—Elizabeth “Leah” Diehl

and an increase in academic resilience. It also showed an increase in help-seeking behavior, perseverance, ability to manage negativity, and a sense of belonging.

Other horticultural therapy professionals are finding great results as well. “The benefits our patients often see from working with plants through horticultural therapy can range from making progress toward therapy goals like memory, speech, hand strength and coordination, exploring or reconnecting with a meaningful recreational activity, achieving pain and symptom relief, and calming their nervous system,” notes horticultural therapist Mattie Cryer at Craig Hospital, a nationally recognized neurorehabilitation and research hospital in Denver, Colorado, specializing in spinal cord and brain injury.

Teresia Hazen, a horticultural therapist and 2016 winner of a Zone XII Horticulture Commendation for her work in horticultural therapy, reflects on her work at Legacy Health in Portland, Oregon, “Trees are the foundation of the four-season plant palette contributing to health and well-being for all who visit. During horticultural therapy sessions we guide the patient in talking about the shape of columnar, vase-shaped, and layered trees. Practicing focus of attention and ‘compare-and-contrast’ activities aid in cognitive retraining for patients recovering from stroke and brain injury, and so much more! With pediatric patients we use a variety of tree leaves for leaf rubbing cards and nature craft projects.”

The National Health Service (NHS), the umbrella term for the publicly funded healthcare systems of the United Kingdom, pays for green social prescribing (GSP). GSP allows healthcare professionals to prescribe nature-based activities to patients at no cost; the NHS believes this could save them millions. Unfortunately, in the United States HT is not recognized by insurance companies as a reimbursable intervention or therapy.

HT has the power to positively impact people’s lives, sometimes in subtle ways and other times in dramatic ways. It is not a trend, fad, or a new age concept. Rather, HT works, and there is documented evidence of its benefits for our mental, physical, cognitive, and social health. So, as you consider matters of self-care, consider getting outside and working in the dirt to experience the benefits of horticultural therapy.

Trees are essential in the well-designed therapeutic garden. They signal seasonal changes and are intentionally placed through the garden to carry the visitor intuitively through the sensory and seasonal experience every day in Legacy Health hospital gardens. Photo courtesy of Legacy Health

