

## Horticultural Therapy Programs that Excite, Excel and Engage

By Lesley Fleming, HTR

Guelph Enabling Garden Workshop June 2015

A review of effective horticultural therapy (HT) programs sheds light on wonderful ideas that excite both staff and participants, engage people of all ages and abilities in plant-based activities and which excel in delivering quality programming. The goal of all 4 program types of horticultural therapy programming is to improve the health and well-being of participants. Each type of programming--clinical horticultural therapy, therapeutic horticulture, social horticulture and vocational horticulture (per American Horticultural Therapy Association Position Paper 2007) offers its own methodology and outcomes for improving health.

The June 2015 workshop hosted by the Guelph Enabling Garden provided insight into 25 programs that utilize plant-based programming. A tour of the Guelph Enabling Garden showcased the garden's beauty and barrier-free design, HT programming, and self-directed activities. The following list provides information for each of the HT programs presented. Cited research puts into context the empirical evidence on which horticultural therapy theory and practice is based.

### Wilmot Gardens, University of Florida College of Medicine

Horticultural therapy (HT), & therapeutic horticulture (TH) programming for veterans, cancer survivors and wellness groups are delivered in a recently built greenhouse. Research relating gardening to brain activity is currently being conducted, utilizing the close relationship with the university and its medical & agricultural schools.

Chun, D. (Oct. 2014). Healing Garden. *Gainesville Magazine*. Electronic version  
<http://www.gainesville.com/article/20141001/GMAG/140939962>

Greenhouse Project. Adjustable Potting Benches. Electronic version  
<http://www2.mae.ufl.edu/asme/garden.aspx>

Curry, C. (Oct. 2014). Using Gardening to Boost patients' Spirits. *Gainesville.com*.  
 Electronic

version

<http://www.gainesville.com/article/20141025/ARTICLES/141029763?p=1&tc=pg>

### Cape Breton Cancer Centre Healing Garden, Nova Scotia

Initiated as a pilot project for cancer survivors using the therapeutic garden adjacent to the infusion treatment room, the therapeutic horticulture program continues to rely on small group sessions, input from oncology and social work staff, and integration of nutrition/plants/growing of edibles to support the cancer journey for participants.

Fleming, L. & Figueiredo, M. (3013). Healing Gardens for Cancer Populations. *AHTA News*

*Magazine 41 (2) pp.13-15*. Electronic version

<http://ahta.org/sites/default/files/HealingGardensforCancerPopulations.pdf>

### Denver Botanic Gardens, Colorado

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

Partnering with the local cancer center, a program called *The Cancer Journey as Reflected in the Japanese Art of Bonsai* provides both indoor & outdoor therapeutic horticulture activities at the public gardens' Bonsai Pavilion and Japanese Gardens.

Boardman, D. (2013). Horticultural Therapy in the Japanese Garden. *Denver Botanic Gardens*.

Electronic version <http://www.botanicgardens.org/blog/horticultural-therapy-japanese-garden>

### **The Gathering Place: Norma's Healing Garden, Cleveland Ohio**

<http://www.touchedbycancer.org/about-us/take-a-tour>

Beautiful and functional therapeutic gardens designed by Canadian Virginia Burt provide an outdoor platform for comprehensive programming including therapeutic horticulture for this population. Raised beds, Children's Garden, The Gathering Terrace, Storybook Maze & Secret Mystery Garden offer a variety of nature settings for active programming and sanctuary space.

Herzog, T, et al. (1997). Reflection and attentional recovery as distinctive benefits of restorative environments. *J Environ Psychol* 17:165–70.

### **Camp Dream Street, Kaplen JCC on the Palisades, Tenafly, New Jersey**

<http://www.jccotp.org/camp-dream-street>

The outdoor summer camp setting is the exact opposite of hospital environments where many of the children with cancer and blood disorders who attend Camp Dream Street have spent time. The camp experience including therapeutic horticulture, focuses on developing new skills, building self-esteem and promoting group interactions in an outdoor nature setting.

### **Cancer Lifeline's O'Brien Center Gardens, Seattle, Washington**

<http://www.cancerlifeline.org/>

Offering programs, workshops and classes on therapeutic horticulture, relaxation, healing arts for creative expression, nutrition and medication, the programming and therapeutic gardens seek to "restore a sense of order, safety and privacy for those dealing with the chaos induced by cancer".

Taft, S. (2007-8). The Use of Therapeutic Horticulture in Cancer Support. *Journal of Therapeutic Horticulture* 18.

### **NYU Rusk Institute of Rehab Medicine, New York**

<http://www.med.nyu.edu/glassgardens/therapy/adults.html>

Rusk's interdisciplinary treatment model includes horticultural therapy as one modality for a wide range of populations—cardiac, pediatric acute care, epilepsy, blood disorders, & other rehab medical patients. Therapeutic goals include decreasing stress, enhancing mood, restoring physical functioning, & introducing positive leisure pursuits.

Wichrowski, M., Whiteson, J., Haas, F., Mola, A., & Rey, M.J. (2005). Effects of horticultural

therapy on mood and heart rate in patients participating in an inpatient cardio pulmonary rehabilitation program. *Journal of Cardiopulmonary Rehabilitation and Prevention* 25(5), pp.270-274.

### **Resettled Refugee Programs, Dallas, Texas**

Implemented as a vocational horticulture program at the Dallas Arboretum with a specific intake of resettled refugees, the program offered an 80 hr. apprenticeship at the public garden as a means of preparing participants for entering the workforce with horticultural skills and experience.

A Gardening Program Helps Refugees Learn and Put Down Roots. *The Chronicle of Philanthropy*. Sept. 8, 3013. Electronic version <https://philanthropy.com/article/A-Gardening-Program-Helps/154401>

### **Healing and Hope Through Science, North Carolina Botanical Garden**

**<http://www.healingandhopethroughscience.org/>**

Begun by a student in 2006, the HHTS program has become institutionalized by the botanic garden, Duke University & University of North Carolina as a program with educational, therapeutic, & recreational components held in hospital classrooms, playrooms and individual patient rooms.

Jessee, P., Strickland, M., Leeper, J., & Hudson, C. (1987). The Effect of Nature-Based Experiences on Children's Adjustment to the Hospital: A Comparative Study. *Journal of Environmental Education*, 19(1), pp. 10-15.

**Homewood Health Centre, Guelph, Ontario**

A long-standing leader in HT, Homewood continues to be involved with innovative projects including the recent multi-site Project Soil research investigating organic food production systems at public institutions.

Project Soil Webinar. Electronic version <http://projectsoil.ca/2014/09/23/project-soil-webinar/>

**Legacy Health, Portland, Oregon**

**<http://www.legacyhealth.org/health-services-and-information/health-services-for-adults-a-z/horticultural-therapy/legacys-gardens.aspx>**

Legacy Health's horticultural therapy programs and therapeutic gardens within hospital settings address the needs of many populations including those recovering from stroke, accident, burns among other health challenges. Through their HT services they offer patient assessment, treatment plan, measurement of outcomes, as well as training for HT practitioners, workshops and research related to HT.

Ulrich, R. *The Health Benefits of Gardens in Hospitals.*

[www.planterra.com/SymposiumUlrich.pdf](http://www.planterra.com/SymposiumUlrich.pdf)

Browning, L.M. & Lee, S. (2011). Pregnancy and Place: Creating Therapeutic Gardens for

Maternity Care Patients. *Journal of Therapeutic Horticulture* 21(2)

**Mira Manor Seniors Centre, Cape Breton**

An example of social horticulture programming, government funding was used to construct a greenhouse and garden shed for seniors at this community garden/facility to promote socialization, physical activity and community cohesion.

**Windsor Elms Assisted Living Facility, Nova Scotia**

**<http://windsorelms.com/services/therapeutic-services/>**

Recreation programming integrating gardening activity is the model that offers both therapeutic and leisure activity for seniors at Windsor Elms Assisted Living in Nova Scotia. Activities are both group and individual focused, including some residents with their own vegetable gardens on site.

Gigliotti, C.M., & Jarrott, S.E. (2005). Effects of horticulture therapy on engagement and affect. *Canadian Journal of Aging* 24(4), 367-377. Peer-reviewed comparative study of adult day service patients found that horticultural therapy was as effective or more effective in maintaining crucial measures of functioning.

**Portland Memory Garden, Oregon**

**<http://www.centerofdesign.org/pages/memorygarden.htm>**

One of only two memory gardens built on public land in the U.S. designed specifically for older adults and those living with Alzheimer's and other forms of dementia and their caregivers, the therapeutic horticulture programming delivered at the garden seeks to improve the well-being of

the seniors while also modeling effective use of gardening activity for caregivers. Special events offer a wider range of activities and garden use by the general public.

Cassidy, P. (2013). The Portland Memory Garden: A Therapeutic Resource on Public Land.

*Journal of Therapeutic Horticulture* 23(1) 49-58.

### **Eating Disorder Clinic, Capital Health, Halifax**

<http://www.cdha.nshealth.ca/mental-health-and-addictions-program/programs-and-services/mental-health-services/diagnosis-based--1>

Dealing with relationships with food, this out-patient clinic in a hospital setting uses a multi-modality approach which includes growing and preparing nutritious food to change behavior. Hands-on gardening provides social, nutritional and psychological guidance from trained professionals.

Clatworthy, J., J. Hinds & P. M. Camic (2013). Gardening as a mental health intervention: a

review. *Mental Health Review Journal* Vol. 18 No. 4 pp. 214-225.

### **Hope Network, Michigan**

<http://hopenetwork.org/>

This non-profit healthcare organization provides a continuum of care at multiple locations for brain injury, spinal injury, developmentally delayed & substance abuse populations. Horticultural therapy in greenhouse and garden settings is part of its specialized care services.

### **Napa Valley Hospice and Day Services California**

<http://nvhads.org/mission/>

Using the life cycle of plants as a parallel for those dealing with end of life and bereavement challenges, the day services offered by Napa Valley Hospice offers therapeutic horticulture activities as one of its services. Understanding the needs and characteristics of its population allows its programming to be sensitive to patient and family, relevant to the individual's stage of life and their physical and emotional challenges.

### **Melwood, Maryland**

<http://www.melwood.org/services/day-services>

A large social service agency that uses a social enterprise model for habilitation for people with differing abilities, Melwood delivers programs in horticultural therapy, culinary arts, fitness, creative arts & employee development. Melwood has been able to provide horticultural vocational training, internships and employment in the community for its clients through its Crossroads, Personal Enrichment and Community Connections programs.

### **Gary Corner Youth Center, Chicago**

<http://www.gcyhome.org/index.php/project/green-initiatives/>

Providing social services for at risk children & youth, this facility has an award winning "8,000 square foot rooftop garden, a 1.75-acre youth education farm, an environmental education garden" and a fruit orchard that are used to teach seed to harvest cycle, environmental stewardship, cooking and positive leisure activities. Their plant-based methodology engages its population in this sky-high setting with its urban agriculture and culinary arts programming.

Rahm, J. (2002). Emergent learning opportunities in an inner-city youth gardening program.

*Journal of Research in Science Teaching*, 39(2), 164-184.

### **Norfolk Botanical Garden, Virginia**

<http://norfolkbotanicalgarden.org/education/arborist-programs/>

Arborist training for at-risk youth is one of the programs offered by Norfolk Botanical Garden. Partnering with the local arborist association, this 15 week vocational horticulture program includes arborist methods and practices, tree-climbing, safety procedures, & pruning.

Fleming, L. & Dutrizac, G. (2010). Botanical Gardens: Fertile Soil for the Practice of Horticultural Therapy. *Journal of Therapeutic Horticulture* 20 (1) 55-65.

### **Cleveland Botanical Garden, Ohio**

<http://www.cbkgarden.org/lets-learn/green-corps.aspx>

High school students participating in the garden's Green Corp program earn stipends while growing, harvesting and selling edible produce from 6 urban neighborhood farms. Part education, entrepreneurship, & horticulture, students find the program to be interesting and fun while providing opportunities for future success.

### **Veteran to Farmer Models**

<http://veteranstofarmers.org/about-veterans-to-farmers/>

An emerging trend in nature-based programming, veteran to farmer programs in the U.S. offer transitioning veterans a blend of vocational, physical, psychological and social activity that is meaningful, task focused and a healing experience through connections with nature.

Fleming, L. (2015). Veteran to Farmer Programs: An Emerging Nature-based Programming Trend. *Journal of Therapeutic Horticulture* 25 (1) 27-48.

### **Hong Kong Therapeutic Horticulture Association's Programming for Earthquake Survivors**

<http://www.hkath.org/>

Therapeutic horticulture programming for school students and social service agency staff dealing with the after effects of the 2009 Chinese earthquake focused on using plant-based activity encouraging emotional restoration, reflection and new meaning to life.

### **Forest Breathing/Shinrin-yoku**

Empirical research has validated physiological and psychological health benefits from walking in forests. An example of an emerging preventative health strategy supported by (Japanese) government, it is overwhelmingly popular with citizens, corporations and tourists.

Park, B, et al. (2007). Physiological effects of Shinrin-yoku (taking in the atmosphere of the forest)—using salivary cortisol and cerebral activity as indicators. *J Physiol Anthropol* 26:123–28.

### **Reflexology Paths**

<http://nsunews.nova.edu/medicinal-garden-opens/>

The use of self-directed reflexology paths at universities and other settings has renewed interest in the ancient practice of reflexology. Recent research has validated the physical health improvements that can be achieved through reflexology paths.

Li, F., PhD; K. John Fisher, PhD; and Peter Harmer, PhD. (2005). Improving Physical Function and Blood Pressure in Older Adults Through Cobblestone Mat Walking: a Randomized Trial. *Journal of the American Geriatrics Society* (Volume 53) Issue 8, pp. 1305-1312.

### **Guelph Enabling Garden**

<http://www.enablinggarden.org/>

"The Guelph Enabling Garden (GEG) is a multi-use garden designed for children, the elderly, families, but especially for those community members with varying degrees of physical and cognitive abilities." Their programs include: Sense-based Activity, Fitness in the Garden,

Personal Growth in the Garden, Soil/Compost/Water, Fairy Garden, & Staying Well in the Winter.