A Study in Horticultural Therapy: Matt's Seed Story

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Matt's seed room is a place where not just seeds grow, but people grow, too. This is about Matt, who at the age of 19 suffered a traumatic brain injury from a motorcycle accident. Horticultural therapy, specifically a seed program designed to meet Matt's rehabilitation needs, is one of the main tools used in his treatment. This seed program addresses four areas of his recovery: - cognitive, physical, social, and behavioral. Using horticultural therapy, a human life can have a new beginning.

From a seed grows a life

Matt's seed program took root and flourished at a unique place called Tangram Rehabilitation Network, founded in 1978 in San Marcos, Texas, by Stanley Seaton. Tangram is a group of progressively independent treatment programs designed to meet the rehabilitation needs of individuals with brain injuries.

When Matt suffered a severe, traumatic brain injury in August 1979, he was a beginning college student. His accident occurred when a passing truck collided with the motorcycle on which he was a passenger. He was rendered comatose and suffered post-traumatic amnesia for about 1 year. Matt suffers from balance, locomotor, and motor difficulties; spasticity; and controlled-movement impairment. He primarily uses a wheelchair to transport himself. He has speech, hearing, and vision difficulties and short- and long-term memory deficits. He exhibits difficulties with word finding, visual-spatial organizing, and orderly sequential thinking. He has a difficult time shifting mental sets and, therefore, relies on a concrete and fixed way of thinking. He tends to focus only on one concept of a complex situation at a time. Matt's attention span relies greatly on the amount of stimulus in his setting, and he requires a low-stimulus setting in which he will not be distracted.

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Matt is very motivated and will pursue a goal once he has it firmly in his mind. Matt was admitted to Tangram in March 1982 to develop basic fictional skills and began participating in Tangram's Nursery Program for prevocational training in 1985. Due to his severe physical and cognitive deficits, his prevocational training options were quite limited. As a result, a highly innovative horticultural therapy program was initiated to increase his sense of worth and self-esteem.

The role of horticultural therapy

Horticultural therapy is the use of plants as a therapeutic modality geared toward people with disabilities. The milieu created by horticultural therapy is nonthreatening and success oriented.

Projects and activities are designed to increase an individual's self-esteem and confidence by seeing that they can make a difference. Seaton states, "I believe horticultural therapy seeks to unify the healing process for people with disabilities, and the growth process in plant life offers a dynamic and direct treatment option."

Horticulture, a science and an art, has proven to be therapeutic to many people. Why is it so successful? Harlan Shoulders, manager of Tangram's Nursery, believes that clients benefit by becoming caregivers rather than care recipients and that their self-esteem improves by caring for these plants.

Matt's seed program

It was difficult to find a meaningful horticultural program for Matt, but, after years of trial and error, his niche was found—a native Texas seed program.

Initially, Matt participated in Tangram's weekly plant class to learn basic information about indigenous trees. Next, Matt and other clients went on field trips where they could learn more about the trees and the seeds collected from them. More than 50 types of seeds were being collected through the seed program at this time. The seeds were sorted, dehulled, cleaned, counted, packaged, and labeled, then they received specific treatment for storage. Matt responded very well to the program. His father commented, "It's amazing how he could remember 40 different seed names, but couldn't even remember what day it was."

The next step for the program was to grow trees from the collected-and treated seeds. The value of plant production is client involvement from start to finish, a process that offers a multitude of therapeutic opportunities. Matt developed a particular interest in working with Texas mountain laurel seeds, *Sophora secundiflora*. An entire program was developed around this hardy Texas tree. Among many advantages, mountain laurel seeds can be collected throughout the year and in large quantities. They require no refrigeration and stay in the pods for a long time. All these factors, plus the fact that mountain laurel is popular in this area, contributed to Matt's success.

Matt is now the nursery's seed manager. He has the added responsibility of arranging field trips for staff and clients to collect mountain laurel seeds. He also participates in the hiring process with the nursery manager when clients are added to his Seed Team (Matt even has a sign that reads Matt's Seed Room). Matt handles all transactions involved in clean-

ing, packaging, and selling seed packs. Classified ads selling 100 seeds for \$5.00 run in state-wide horticultural publications, and, when orders are received, Matt packages the seeds in an envelope, labels it, and mails the seeds to the customer complete with growing instructions. Matt is responsible for endorsing checks, getting receipts from the retail nursery, and writing follow-up letters. A checklist, word processor, and small tape recorder all are used to assist Matt in the mail-order procedure. Matt participates fully in every aspect of the seed program, even though the steps he takes require 80% to 90% cueing from staff with one-on-one supervision.

Another aspect of Matt's seed program is Matt's seed

Fig. 1. In Matt's Seed Room, Matt cleans and packages seeds.

class. The class meets 1 day a week for 15 minutes. Matt teaches a group of clients about a different tree and its seeds each week. Matt's father stated that when Matt realized he was going to be the teacher, he became very motivated to learn the material. Matt works in his seed program 8 hours a week, Tuesday through Friday, 2 to 4 PM.

Matt is very excited to know that a paper is being written on his seed program. Matt was asked why he likes the seed program. After a moment of thought, he enthusiastically responded, "I like to see people, shell seeds, and come to the nursery."

Results of the seed program

Matt's seed program is a reflection of creativity, patience, and hard work. A highly innovative program emerged as a result of these factors. The benefits that Matt gained through the seed program include improved written and verbal communication skills and increased short- and long-term memory. Matt's abilities with counting, sequencing, and recalling names of people with whom he works also have improved.

The seed program has given Matt many physical opportunities to exercise gross and fine motor skills and eye-hand coordination, all in functional, meaningful ways. His physical endurance has increased through seed collecting. Matt also has shown increased self-esteem, confidence, and enthusiasm about his life. His self-esteem continues to increase as he averages one order per week for his Texas mountain laurel seeds, and his list of responsibilities continues to grow. Future direction of the seed program includes an

expansion of the selection of seeds available and a greater variety of species.

The seed program has been custom-tailored to address many of Matt's needs and those of other clients in the program. He is able to put aside his own disabilities and use his horticultural skills to help bring out other people's abilities. Matt's abilities are many, and he is a shining example that the benefits of horticultural therapy are multifaceted.

Discussion and conclusion

Through creativity and flexibility, horticultural therapy is an effective approach for individuals with severe disabilities. Matt's life took on a new beginning with the practical application of a unique seed program. The program started with a single seed and grew to an entire seed program—Matt's own program. The key to a successful program is to target a client's interests and needs. The growth of a plant, the happiness in a smile, the result of hard work, the feeling of self-worth—this is what horticultural therapy is all about. Collect a seed, plant it, water it, and watch it grow. Give people the tools, the control, and watch them grow. Through the growth of a seed, we can say we have seen the growth of human potential. This is what Matt's story is all about.

Literature Cited

Mattson, R.H. 1983. Introduction to horticultural therapy. Kansas State Univ., Manhattan.

Olszowy, D. 1978. Principles of horticultural therapy: Program planning goals and objectives. Charles C. Thomas, Springfield, Ill.

Fig. 2. Matt uses a word processor to assist in mail-order transactions with one-on-one supervision.