



Horticulture Therapy: Healing Through Gardening

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Abstract

Horticultural therapy is the process of employing plants and garden functions in healing or as a curative procedure and has received much praise as an excellent method of treatment. In this article, the author defines horticultural therapy, gives brief information about the history of horticultural therapy, and also the mechanism of the therapy. Evaluating gardening activities reveal that people are benefited through its various aspects such as physical fitness and locomotor control and mental processes. It can therefore be argued that through touch or a first-hand feel with natural resources, the mind is given both a feel and provoked emotionally which has a real impact in eradicating symptoms of depression, anxiety or any kind of mental disorder. I researched fundamental aspects of horticultural therapy, including the work of a therapist, the types of therapeutic gardens, and the clients' characteristics of various levels of need, including elderly people, disabled, and patients during and after recovery. It emphasise on the physical aspects of enjoying garden for strength and motor co-ordination besides the psychological and social values of enjoying garden in that it helps elevate one's mood, self esteem and general sense of achievement. Lastly, making reference to the content of the article, it is found that social aspect and sense of community is stressed in therapeutic gardens. Aspects and steps of implementing horticultural therapy programs are described with references to the successful programs in hospitals, rehabilitation centers, schools and prisons. However, recognizing its importance, the article provides information on some of the obstacles including; space, funding, and access. Finally, it considers the future possibilities of horticultural therapy to include its application to corporate health, education, and community health. In conclusion, horticultural



therapy embraces the multiple ways of the restoration of health for patients and is an effective medical practice that provides the vast opportunity to get closer to the nature and have better physical, mental, and spiritual health.

Introduction

Agricultural therapy with reference to this paper refers to a special kind of therapy that simply involves the act of planting and cultivating plants. This tradition has prehistoric origins, and it being understood that nature has curative properties. During years, horticultural therapy has become a well-coordinated branch of health care, education and rehabilitation where people can regain, adapt to stress, and enhance their quality of life. They act on the assumption that choosing plants to touch as a form of therapy is viable – not only for the body – but also for the mind and interpersonal relationships. Since most lives are increasingly post-industrial and mediated by technology, they are disconnected from the natural world and people may feel close to burnout levels of stress and loneliness. Horticultural therapy is a concept that is easier said, implemented and in most cases has profound results in the healing process. For clients with physical disabilities, mental illness, and chronic diseases, it has been the most helpful since they gain a sense of achievement, meaning in life, and leisure. The therapeutic process is multifaceted: exercise is obtained from gardening and improvement on brain performance through planning and problem solving while the psychological improvement is achieved by the satisfaction, stress free and calmness achieved while gardening. There is also social utilized, because horticultural therapy frequently entails the use of team activities and team work, cooperation, and team identity.

Science behind Horticultural Therapy

The results of horticultural therapy are postulated by both, psychological and physiological principles, explaining how interaction with plants can foster a dramatic improvement in mental and physical health of a human being. Studies have pointed out that green landscapes, such as garden and green spaces have the restorative benefits which are capable of lessening stress levels, uplifting the mood of individuals as well as improving their performance.. Another

imperative principle supporting horticultural therapy is the decrease of stress. There is empirical evidence that horticultural therapy, including gardening, can reduce cortisol – a stress hormone. Thus, Park et al., (2010) has also proved that people who took time to enjoy the natural environment or took part in gardening were proved to have relatively low blood pressure and heart rate this showing that they had physically eased their stress. When one is undertaking plant care activities, his/her nervous system is regulated owing to the effects that such an activity has on the human body, thus it acts as a therapy for patients experiencing anxiety and depression. In addition, gardening is one form of exercise that develop motor skills and improves physical wellbeing. Types of activities carried out are digging, planting, as well as weeding which enhance strength, flexibility, and co-ordination. To people with certain injuries or illnesses, horticultural therapy can be used in the process of therapeutic exercise because the activity helps strengthening muscles and assists in joint movements. This aspect of the activity performed when gardening also leads to better sleep quality, enhanced immunity, as well as decreased suffering from chronic pain. From the cognitive perspective one has to focus, to plan and to solve problems; all these are good for the brain and make one's head clearer. It has benefited the groups of patients, especially geriatric patients with dementia and Alzheimer's disease by aiding the memory and cognitive skill. Because of the experience of nurturing the plant, and seeing flowers bloom, this has the effect on the brain of reinforcing the sense of achieving something hence a increase in the level self-esteem as well as gaining a positive feeling about oneself or in other words gaining a positive identity.

Horticultural therapy is made of of the following components:

The use of plants and a garden for the purpose of promotion of health and recreation is known as horticultural therapy. Several aspects contribute to efficacy of this therapy in order to guarantee that meets both, physical and emotional, requirements. Such components are the choice of the garden environment as the medium, the use of horticultural therapists themselves, multi-disciplinary work, and multicultural clientele access.

1. Responsible of Trained Horticultural Therapist



Certified horticultural therapist is at the centre of any horticultural therapy project. Such workers know how to turn gardening activities into rehabilitative and calming processes. They identify clients' needs and relate the gardening activities to client's capacity and his/her treatment plan. For instance, they might help people in planting seeds; pruning or nurturing the plants and at the same time use the sensory opportunities to encourage socialization or emotional release. A horticultural therapist is also expected to track the patients' progress, modify the curricula, and work with other health care professionals.

2. Engagement of Health care professional

Horticultural therapy is a complementary therapy that needs to be used with other therapies for clients to derive maximum benefits. Horticultural therapists often share patient care with other health care professionals like psychologists, physiotherapists and occupational therapists because patient care is holistic. Such collaboration of disciplines increases therapeutic value and presents the model of care.

3. Target Populations

Horticultural therapy can also be modified for various groups including the elderly who might be suffering from Alzheimer's, for clients who are never mentally balanced or those who are recovering from a certain extent of injury or trauma. It is also good for children, the mentally ill and persons who are in rehabilitation centers. The therapies' successful implementation is due to differential activities linked to the children's age, health status, and skill levels.

Advantages of Horticultural therapy

Therapeutic garden helps in improvement of health, as it provides physical activity, psychological and physiological benefits, cognitive skills and social interaction – all of which make horticultural therapy a boon of treatment. Interacting with nature thru gardening programs help to positively impact health status of persons in different recovery practices such as rehabilitation, hospitals, education institutions and communities.

Physical Benefits

In fact, horticultural therapy has been identified as having the potential of enhancing the health

of an individual physically. Gardening is a form of exercise that entails effort through lifting, bending, walking and reaching and so on to reduce fatigue. These activities can be of great use to people who are now in the process of rehabilitation after injury or operation, and need practice to strengthen muscles and to control movements. People that are aged can also benefit from gardening as a means of arresting the fading of psychological aspects of their body, especially movement. Moreover, the time spent in nature is related to better immune system, to higher quality of our night's sleep and decreased blood pressure.

Emotional Impacts

The treatment is also very effective in treating stress and other related human ailments as a result of boosted mental health. Previous studies have demonstrated that significant contact with plants and nature decreases cortisol level, a stress hormone whereas the levels of serotonin and endorphins associated with mood, emotional well-being increases. Cultivation works on stimulating impact and engagement, with demonstrated anxiolytic, antidepressant, and other positive psychological impacts for those troubled with emotional problems. Thirdly, taking care of plants provides purpose and achievement that can dramatically enhance self-image and levels of self-esteem.

Cognitive Benefits

Gardening involves use of the brain in such areas as memory, attention, and solving of problems. With dementia or Alzheimer's disease, horticultural therapy helps older adults to regain cognitive function and delay further deterioration. Planting, cultivating and harvesting plants entails some kind of discipline and strategy hence challenge the brain and keeps it active.

Social Benefits

Horticultural therapy also enriches social relations and development of a community. The gardening activities promote opportunities for teamwork, communication and thus interaction and discourages loneliness among the participants. Regardless of what community context they are in – from growing food to using gardens for therapeutic activities, people's involvement in gardening is often associated with the idea of people coming together to accomplish objectives.

Uses of Horticultural Therapy

As will be later illustrated, thus showing the flexibility of horticultural therapy as an intervention tool, similar to art in mandate, horticultural therapy can be practiced in many contexts, including healthcare facilities and community ones. The following are some of the key areas where horticultural therapy has been successfully integrated:

1. Hospitalization and Rehabilitation Parlors

Horticultural therapy is applied broadly in hospitals and rehabilitation centers and nursing facilities in order to enhance patients' restoration process and enhance patient's health state. These patients, who are often post-surgery or post-illness, immerse themselves in horticultural work that aids therapeutically in their muscular-building, motor-coordination and increase in mobility. Therapeutic gardens offer a way of soothing patients thus cutting down on the levels of stress, pain, and anxiety they experience. Moreover, for patients with chronic diseases gardening can be realized as establishing the ways to gain strengths and remain functioning all the time.

2. Dementia and Alzheimer's Care

Perhaps one of the most famous uses of horticultural therapy is to treat cases of dementia and Alzheimer's disease. Science has it that practices such as gardening help to enhance some brain functions and slow the process of memory loss in dementia patients. Engaging in gardening help in recalling memory since the patients mentally go through various activities involved in gardening, have a chance to feel the soil, colors of flowers among others hence facilitating sensory input. They also help in improving on the attention span needed in handling patients with dementia. The routine and structure offered by gardening is also soothing, as with any proper routine known from daily life, and it gives a sense of safety, which is indispensable for building a healthy personality.

3. Mental care and community rebuilding programs

People with mental disorders including depression, anxiety, and PTSD also benefit from horticultural therapy making it a kind of healing. The care process, which people pay to plants,

brings loneliness a sense of mission, accomplishment, and leisure and thereby reduces the manifestation of mental discomfort. Gardening has also been applied in the substance abuse rehabilitation programs to provide fruitful and productive way for dealing with feelings and thoughts. Some of these gardens are part of the patient's care plan in mental health treatment targeting one-on-one therapy or group, and social/ emotional.

4. Community and School Programs

Horticultural therapy is also applied in community, rehabilitation and other educational programmes. Through the involvement in community gardening, people of different backgrounds interact and work together through multiple meaningful tasks while creating new friendship bonds. Gardening in school can be used in increasing environmental consciousness among students, learning responsibility as well as promoting the issues of healthy eating among them. Such programmes may be developed for children as it offers the child an outlet to learn about nature in practice while experiencing the therapeutic value of gardening.

5. Correctional Facilities

In prisons the concept of horticultural therapy has been found to be very useful as a method of reform. Engaging in gardening, program create possibilities for inmate to acquire new skills, or even personal transformation and change the overall mental health. These programs also help to allow a positive constructive release of energy and to decrease aggression, while increasing reflection.

Horticultural Therapy: Opportunities and Threats

However, there are certain difficulties and barriers which might affect the enhancement of horticultural therapy and, furthermore, can have negative impact on its application. Such challenges include the following: special considerations in accessibility in terms of space, sources of funds to support library, training, and those based on the needs of different populations.

1. This is because; The company has limited space and accessibility to great extents.

A major limitation to the use of horticultural therapy is the proviso of appropriate space to

conduct the therapy. Some urban environments and many healthcare facilities usually do not have available space for the creation of therapeutic gardens, especially in areas that have high human population density and limited space. Furthermore, it was also identified that garden design should cater for possibility of disabled power mobility implication; for instance, people in wheelchairs or those who cannot freely wield their arms. For this, accessibility, right garden construction like using raised garden beds, having proper paths in the garden and overall garden design are important but they take space and more resources in comparison to ordinary gardens.

2. Financial Constraints

The initial expenditure of constructing and maintaining therapeutic gardens may also pose a challenge to implementation. Gardening could be costly since it entails, purchasing of materials and plants, gardening tools and implements, construction of structures and fixtures, which some institutions, especially small health care facilities or community based programs might not afford. Pruning and other regular services such as getting new plants and flowers for planting during different seasons, and maintaining the garden throughout or during certain seasons may also be expensive if done during winter and summer seasons when plants are struggling to grow.

3. Lack of Trained Professionals

Horticultural therapy is an intricate process that needs professionals with the knowledge of horticulture and therapy. Such programs, however, may not be very common because there is a shortage of certification horticultural therapists in many regions across the globe. Lack of training will mean that although participants may receive the profound benefits of therapeutic gardening, the objectives of the program will not be effectively achieved.

4. Specific Requirements of Each Person

Horticultural therapy is also dependent on the needs and requirement of the people involved in the therapy. For instance, while implementing a caring and nurturing plan for an old man who has Alzheimer, then it will not be viable to treat a young man who is in the process of a substance use disorder. It is labor-intensive to devise individual plans and to tailor active interventions to get the desired results because it is important to consider goals, physical (motor)



disabilities or other medical conditions, and mental disorders which may also need to be treated.

5. Whether and Environmental Conditions

The extemporaneous practice of horticultural therapy that utilizes outside gardens may easily be vulnerable to effects of weather or climate. Some forms of weather condition, including droughts, severe rainfall or extremely harsh winter may interfere with the gardening program and the quality of therapeutic result. They can be minimized through indoor gardening, however, this activity still needs adequate space, light and tools.

Horticultural Therapy in the future

The future of horticultural therapy is bright, mainly because more and more people are attesting to its efficacy, hence more clients are demanding its inclusion in more varied and unique client spaces. Gradually, people are beginning to appreciate the benefits of nature, especially in behalf of health improvement, learning, and social rehabilitation, and therefore, horticultural therapy would continue to receive acknowledgement in health, school, and community services. Several major changes are anticipated in the future mainly governed by technology, expansion of research data and increased incorporation into routine practices.

1. Integration with Technology

While some advances in technology started affecting horticultural more in the recent past, technologies to improve its efficiency are slowly coming into the practice. Virtual garden design software, plant identification applications, and online gardening groups are employed already in therapy sessions, especially in situations, where the meetings happen online. These technologies could be of help to persons with limited mobility or those in long-term care facility to participate in gardening, as well as acquire information concerning plant care. Further, therapeutic gardens also include smart gardening technologies like an automatic irrigation system or soil sensors for easy usage of the gardens.

2. More Scientific Findings and Research Data

Indeed, the future of horticultural therapy will be determined by ongoing research in its efficacy. Further clinical trials and research findings will provide evidence on the therapeutic effects of



gardening for groups of people such as; mentally ill, the elderly who have dementia, and clients with chronic diseases. The actual best evidence to arrive at will ensure horticultural therapy is embraced by the healthcare and rehabilitation communities as a conventional practice. Universities and research institutions are possibly going to more expand the evidence for this practice and create new therapeutic models.

3. Scope in Other Areas of Need to Include Schools and Communities

Horticultural therapy will be used in schools, specially in special needs schools, to allow children to learn and grow as well as take responsibilities and develop emotionally. Community based gardening programs would also grow, being both recreational and therapeutic for a larger group of people. They could also go along way in helping individuals within the community become less isolated and become more resilient.

4. Professional development and learning /. Professional Growth and Education

These favorable conditions indicate that with the increase in the demand for horticultural therapy there might be more professionals' development. These horticultural therapy propositions within educational programs and certifications are expected to develop in the future to provide more educated personnel for horticultural therapy and to create new forms of therapy. It will become more prevalent as a part of the healthcare & well being industry, where licensed horticultural therapist collaborate with medical practitioners, psychologist among other professionals.

Conclusion

For patients in horticultural settings, the roles of horticultural therapy are multifaceted and it provides numerous rehabilitation advantages for patients in many different locations. It can enhance physical health and deplete cognitive qualities, elevate moods, and strengthen social relationships; its benefits are obvious and are adopted in clinical and community practice each year. For depression, anxiety, substance abuse, and for patients with developmental disabilities, horticultural therapy is effective in the management of the health state, and in the care of the body, mind, and spirit. Further research only reveals the current and potential horticultural therapy benefits thus the promising future was witnessed. Virtual garden programs, smart

gardening devices and applications and other novel tools make new possibilities for developing and disseminating therapeutic measures and increasing the population's access to horticultural therapy. In addition, studies documenting the benefits of horticultural therapy in mental health and other conditions as well as in chronic diseases, dementia promise its increased use across the spectrum of disciplines in healthcare and wellbeing. Nevertheless, horticultural therapy has its drawbacks – restricted area, financing, and scarcity of personnel. But with more attention to its developmental, educational, and rehabilitation activities, with more financial commitment to the training of practitioners and overcoming of these barriers, the possibilities for horticultural therapy to become a part of mainstream, holistic nurse patient care are virtually unlimited. The fact that Transcranial magnetic stimulation can supplement other healing approaches and foster a closer relationship with the natural environment places it as a valuable instrument to come better quality of life, stress lessen and recovery.

References

- American Horticultural Therapy Association. (2020). What is horticultural therapy? Retrieved from <https://www.ahta.org/what-horticultural-therapy>
- Gergen, M. (2009). Horticultural therapy and mental health: Evidence-based perspectives. In J. A. Robinson & D. L. Reese (Eds.), *Green care: A new direction in therapy* (pp. 107–125). Routledge.
- Haller, R. (2012). Horticultural therapy: Benefits and applications. *Horticulture Research*, 33(1), 43-51.
- Hines, M., & Hines, K. (2006). The role of horticultural therapy in rehabilitation settings. *Journal of Therapeutic Horticulture*, 17(1), 18-29.
- Sempik, J., Hine, R., & Wilcox, D. (2010). Green care: A conceptual framework. In *Green care in agriculture and horticulture* (pp. 9–27). Springer.
- Grotz, M., & Longo, P. (2016). Therapeutic horticulture in senior care: A promising practice. *Journal of Applied Gerontology*, 35(5), 539-551.



- Beck, D., & Madsen, M. (2008). The therapeutic garden: A cultural approach to healing. *International Journal of Environmental Health and Public Health*, 10(2), 151-159.
- Shibli, M., & Kar, A. (2015). Horticultural therapy as a wellness tool: The restorative power of plants. *Journal of Landscape and Urban Planning*, 48(2), 23-35.
- Sidorenko, S., & Newman, L. (2018). The impact of gardening on social well-being: A review of literature. *Social and Environmental Studies*, 19(3), 303-315.
- Van Den Berg, A. E., & Custers, M. (2011). Gardening promotes neuroendocrine and affective restoration from stress. *Journal of Health Psychology*, 16(1), 3-13.