

Do All Gardens Heal the Same?

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Images as credited

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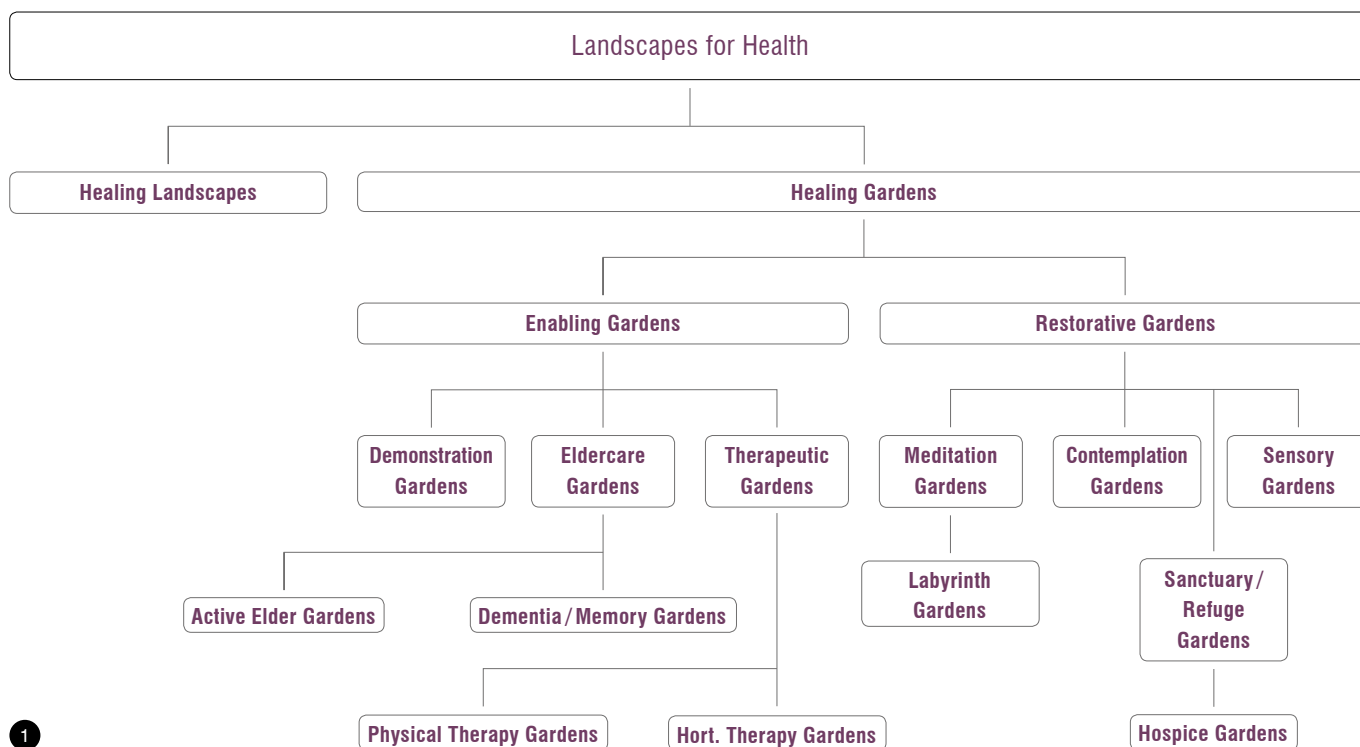
Most people recognise terms of healing such as therapeutic, restorative, sensory, and enabling, but are hard pressed to describe their differences in a garden setting.

Gardens are the linchpin of people-plant interactions and an important component of the horticultural therapy profession. Many organisations and facilities have embraced the importance of gardens in contributing to human well being and as a result, its inclusion in healthcare settings and group homes has become more commonplace. Consequently, numerous types of healing gardens have emerged, many of which are hard to distinguish from one another. Most people recognise terms of healing such as *therapeutic*, *restorative*, *sensory*, and *enabling*, but are hard pressed to describe their differences in a garden setting. It is important for therapists, designers, and other stakeholders to properly distinguish and describe the variations of garden types, especially as they relate to their own work and that of allied professionals, the needs of clients, and the development of additional therapeutic spaces. To that end, this paper will present a framework for understanding and categorising types of healing gardens while also describing the purpose, design characteristics, and potential users of each garden type using research and theory to guide its structure.

Types of Gardens

In 2013, a search on Wikipedia for 'types of gardens' would display a list of 65 garden types. Surprisingly, not a single garden type included in that list evidently fell into the realm of healing gardens, despite the fact that there were several unique garden types included, such as *pinetum*, *firescape garden*, and even *beer garden*. The *paradise garden* was on the list but its description focused on its early history as a walled garden. There was a *sacred grove*, but that entry referred to a grove of trees with significant religious importance, versus a cultivated garden. The *zen garden* was perhaps most closely related to a healing garden but the description accompanying it primarily focused on its early history as a place of contemplation and enlightenment rather than physical and mental healing.

As of this year, Wikipedia lists over 104 garden types, which include *memorial garden*, *raised bed gardening*, *sensory garden*, and *therapeutic garden*. However, a healing garden is still absent from the list. The sensory garden description referred to a space with multi-sensory opportunities but it also focused primarily on the importance of accessibility. The description for therapeutic garden was fairly general, only hinting to the main attributes of a healing garden such as meeting physical, psychological, social, and spiritual needs of the users. It also stated that the garden's primary focus is "on incorporating plants and friendly wildlife into the space" (Wikipedia, 2017).



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Establishing The Hierarchical Framework

A dictionary can help shed some light in trying to formulate distinctions between the various healing garden types. Looking up the adjectives describing the various gardens – words like *healing*, *contemplation*, *enabling*, etc. – may seem tedious but because they use, and to some extent, rely on, semantic nuances, it is crucial to be clear on the definition of these words. In linking definitions, existing research, and landscape theory, a hierarchical framework emerges, with the broadest garden types at the top and the more specific types falling underneath them as they become more distinct in definition.

One thing that is important to state at this point is that the fact that a definition of a garden type is specific does not mean that the garden itself has only a few options in terms of its design. A garden with particular qualities can be created in a multitude of ways, and that is the beauty of good design. In addition, because gardens are living, growing entities and no two gardens are exactly the same, it is impossible to create absolute design rules for any garden type. There is bound to be some overlapping of characteristics between garden types depending on the users and the facility. However, the main focus or intent of the garden can be categorised, and that is the purpose of this healing garden framework.

When first approaching the development of this framework it would seem that the healing garden should be the overarching garden type, with all the more specific garden types falling below it. However, there were some obstacles with that reasoning; the first being the term healing. In the past, this term was commonly related to the alleviation of a medical issue. However, in recent times, it has become a widely used expression in the quest for personal well-being. The definition of the word *healing* is “to make sound or whole; to restore to health; or to cause an undesirable condition to be overcome: mend”. This definition reinforces that healing can be used broadly and is not always about fixing something. It can also be used to refer to the process of overcoming an issue or transcending difficult circumstances. That is precisely what a healing garden experience is about – a visitor can’t always eliminate the issue they are facing but they can often learn to overcome or successfully cope with it through regular contact with nature.

The other concern with using healing garden as the umbrella term for all these garden types was actually the term *garden*. A garden is a green space that has been manipulated in some way; by definition “a plot of land where herbs, fruits, flowers, or vegetables are cultivated”. A garden thus implies that something has been created. However, this becomes problematic when spaces that have minimal human intervention also demonstrate characteristics of a healing garden.



A garden that offers a variety of choices is one that will help to reduce stress. Choice can be provided by incorporating various pathways, seating areas, destinations, plantings, and options for sun and shade, among other features.

Landscapes For Health

What about the many natural landscapes then, that have not been manipulated? Can they be considered healing spaces? Absolutely; in fact for some people, they are the most therapeutic spaces. However, these cannot be defined as gardens because they have not been manipulated or created and therefore, do not fit under the healing gardens category. By the same token, not all natural spaces provide positive experiences and so, *natural landscapes* or a similar term does not serve well as the umbrella term either. Naomi Sachs coined the term *landscapes for health* defining them as any wild or designed landscape that promotes and supports human health and well-being. Landscapes for health, as a broad but defining term, serves as the overarching classification that all the other healing garden types fall below.

This paper will only focus on the healing gardens track but it is important to note that there is another track under the landscapes for health umbrella – specifically those natural landscapes that promote health and healing, such as a site designated for forest bathing or *Shinrin yoku*.

Healing Gardens

The American Horticultural Therapy Association (AHTA) defines healing gardens as “plant dominated environments including green plants, flowers, water, and other aspects of nature, generally associated with hospitals and other healthcare settings. They are designated as healing gardens by the facility, accessible to all, and designed to have beneficial effects on most users. A healing garden is designed as a retreat and a place of respite for clients, visitors, and staff” (AHTA, 2016).

Clare Cooper Marcus emphasises the importance of a multi-sensory experience in the healing garden. She states that the more the garden engages the visitor through all of his or her senses, the lower the rate of pain gets and one’s perception of it gets. To do this, the garden should include colourful flowers, varying shades and textures of green plants, fragrances, wildlife, the view and sound of water, and features that move with even a slight breeze. A ratio of plants to hardscape of 7:3 is ideal.

Cooper Marcus points to evidence that increased social support from friends and family can lead to better patient healing. Thus, providing semi-private areas for conversation in the garden is essential, as are opportunities for pathway choices. The loss of control is a major issue when one enters a healthcare setting and also as one ages. The more a person is able to exercise control the less he or she will experience stress. Therefore, a garden that offers a variety of choices is one that will help to reduce stress. Choice can be provided by incorporating various pathways, seating areas, destinations, plantings, and options for sun and shade, among other features.

In short, a healing garden is an environment that provides stress-reducing and healing experiences at several levels and in many forms. The term *healing* is itself a fairly vague term and could refer to physical rehabilitation, cognitive improvement, or emotional restoration, among many other things. That is where the healing garden sub-categories come into play – for example, a healing garden designed for a children’s hospital should be significantly different from a healing garden designed for adults with Alzheimer’s disease.

Under the healing garden track are two major garden types: the *restorative garden* and the *enabling garden*. Each of these has a list of sub gardens that further categorise these two types.

Restorative Gardens

The restorative garden track is shaped by research and theory developed by pioneers in the environmental psychology field.

Ulrich's Theory of Supportive Gardens

Roger Ulrich posits that the effectiveness of a garden comes largely from how efficient it is in enhancing the process of coping with and decreasing stress. He points to four resources that must be present to facilitate restoration: **perceived and actual control** that provides access to privacy and a temporary escape from stressors; **social support** for visitors and staff as well as patients; opportunities for **movement** and exercise; and **natural distractions** such as plants, water, and wildlife. His theory further suggests that one must feel a **sense of security** in the garden for the four resources to be effective. When all of these things are present, the garden provides restoration and refuge from stress, enabling better coping, and eventually leading to improved health outcomes.

Kaplans' Theory of Attention Restoration

Based on their research in environmental psychology, Rachel and Stephen Kaplan have developed the Attention Restoration Theory, which identifies four components of a landscape or garden that are essential in fulfilling the goal of being restorative. The first is **being away**, which refers to escaping from one's stressors, temporarily at least, and could involve physical escape from the stressful environment, a psychological escape, or better yet, both. **Extent**, the second component, is concerned with the qualities of the place one has escaped to; it must provide a sense of truly being away that is coherent and rich enough to feel like an actual environment, not just a new stream of fascinating information (as in data from a screen). As the Kaplans' assert, it should feel like "a whole other world...It must provide enough to see, experience, and think about, so that it takes up a substantial portion of the available room in one's head" (Kaplan, 1995).

The third component, **fascination**, refers to gentle stimuli in the landscape or garden – things that are interesting and capture rather than demand your attention. A classic example would be a butterfly drifting from flower to flower. Lastly, **compatibility** refers to whether the garden supports the activities that will be restorative for users. Are there butterflies to watch, pleasing sounds to listen to, and engaging sights to view in the garden? Is there a pleasant place to walk or sit so that

one can enjoy, comfortably, all that the garden has to offer? Can the visitor engage in these activities easily and without any struggle?

It may seem like all of these components would make sense for any type of healing garden, and of course they do. However, these prescribed components for a restorative experience emphasise mental, cognitive, emotional and/or psychological restoration, not physical rehabilitation. These theories address the restoration of one's mental capacity rather than physical ability, with the assumption that the accompanying physical issues will also improve following the restoration of one's mental strength. A healing garden, on the other hand, could be a restorative space as described above, or may be primarily concerned with promoting accessibility and physical improvement as in the case with an enabling garden.

Elizabeth And Nona Evans Restorative Garden

A great example of a restorative garden is the Elizabeth and Nona Evans Restorative Garden, located within Cleveland Botanical Garden in Cleveland, Ohio (USA). Despite the fact that the garden is next to a busy dining terrace, the enclosing plantings and stone wall provide a quiet space and reinforce the sense of being away from the surrounding areas. Water gently falls into a shallow pool and muffles the traffic noise, while fragrant, richly textured plants provide a source for fascination. Walkways lead to even more private seating areas and moveable furniture allows visitors to sit wherever they prefer.

Alnarp Rehabilitation Garden

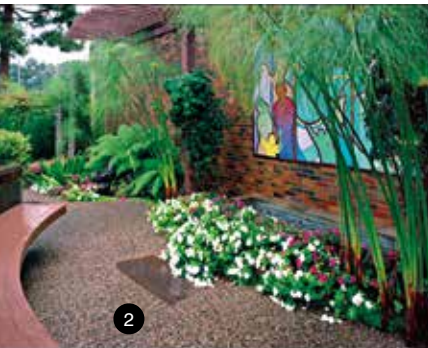
A different type of restorative garden is the Alnarp Rehabilitation Garden in Alnarp, Sweden. Most of the users of this garden have been referred to it by their doctors, insurance companies, or employers because they can no longer work as a result of depression or burn out. The garden is just under five acres and is divided into a number of garden rooms. Clients can relax in the quiet, hedge-enclosed 'Welcoming Garden' or they can practice light gardening tasks in the greenhouse, vegetable garden, or orchard. Clients can also walk along a forest path or relax in a large meadow. The garden was intentionally designed with a variety of outdoor rooms to accommodate the needs and levels of mental strength of every user, thereby fulfilling the compatibility aspect of a restorative garden but in a way quite different from the previous example.

Meditation Garden

The *meditation garden* is a subcategory of a restorative garden. Incorporating most of the components of a restorative setting, this garden also includes design elements that serve as catalysts in an individual's quest towards emotional or physical healing. The verb *meditate* is defined as "thinking or reflecting, especially in a calm and deliberate manner". Meditation can be further defined as looking inward with the goal of inner peace and healing. A meditation garden could take physical form as a series of small and semi-private garden rooms or enclosures spread out within the space facilitating quiet and peaceful reflection.

12 Step Garden

The 12 Step Garden at Scripps McDonald Center in San Diego, California (USA), though no longer in existence, was a great example of a meditation garden. The garden was designed with rich, earthy materials and lush plantings that enclosed distinct spaces for meditation and reflection representing each step in the 12-step recovery process. The series of spaces created unique opportunities to sit alone or in small groups and the sequential or progressive experience of the design emphasised the process concept of healing and recovery.



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Contemplation Gardens

According to the dictionary, *contemplation* is "the act of concentrating on spiritual things as a form of private devotion". The *contemplation garden* may be similar to a meditation garden, but there tends to be a more spiritual, sometimes religious component to contemplation. While that might not necessitate major change in the design of the garden, it does suggest the inclusion of specific symbolic or representative objects to serve as catalysts for thought. Just as meditation can be thought of as looking inward and working toward the goal of inner peace and healing, contemplation is often defined as looking beyond and examining issues that are larger than oneself. This distinction could suggest the framing or opening-up of long views in the garden to help facilitate extrospection.

Howard Ulfelder Healing Garden

A beautiful example of a contemplation garden is the Howard Ulfelder Healing Garden at Massachusetts General Hospital in Boston, Massachusetts (USA). The garden is quite expansive in terms of its view, given that it is located on an eighth floor rooftop. However, the space also feels intimate because it is not very large. It is designed as a place of respite and includes beautiful teak seating, abundant plants, sculptures, and a water feature, in addition to stunning views of the city skyline and the Charles River. The glass parapet ensures that nothing blocks the sweeping views while the features facilitate contemplation of issues beyond and greater than oneself.

Stations of the Cross Garden

Another example of a contemplation garden with a religious theme is the Stations of the Cross Garden at The Grotto in Portland, Oregon (USA). A circular path leads visitors through woods and gardens past the 14 Stations of the Cross depicted in bronze sculptures and surrounded by stones, trees, ferns, and flowers. The progressive movement through the garden strives to provide peace and spiritual inspiration.



The fact that this garden type suggests some specific design elements in no way means that there are fewer options for implementing that design.

Sanctuary Gardens

A third type of restorative garden is a *sanctuary garden*. The word *sanctuary* is defined as “a consecrated place or a place of refuge and protection”. Focus on the well-being aspect of this definition – refuge and protection – gives guidance on the physical design of the space. *Refuge* is defined as “a place that provides shelter or protection, and something to which one has recourse in difficulty”. The second part of that definition particularly speaks to the role of a sanctuary garden as the “something” to which one has recourse in difficulty. While the components of a restorative space continue to be essential in a sanctuary garden, this type of garden calls for a more specific design due to the inclusion of shelter – it should involve manipulation of spatial planes, overhead and vertical, to physically create the sense of a shelter or protection.

The fact that this garden type suggests some specific design elements in no way means that there are fewer options for implementing that design – the sense of a refuge or shelter can be created within a garden through creative planting design, careful inclusion of built features, and thoughtful focal points.

Gift of Life Garden

The Gift of Life Family House Garden in Philadelphia, Pennsylvania (USA) is an example of a small sanctuary garden that serves patients recovering from transplant surgeries and their families. Located at the Family House, which provides temporary, affordable housing to those who travel to the city for transplant-related care, the garden is enclosed by brick walls and lush plantings that provide refuge from the surrounding city and health-related stressors. A water fountain provides further noise buffering and a focal point. The garden has proven to be a place of respite for all who visit the Family House.

2. The McDonald’s 12 Step Garden at Scripps Hospital designed by the Schmidt Design Group.

(Photo: Schmidt Design Group).

3. The Ulfelder Healing Garden at Massachusetts General Hospital designed by Halvorson Design.

(Photo: Elizabeth Diehl).

Sensory Gardens

The last type of restorative garden covered in this paper is a *sensory garden* and as is apparent by its name, is a garden that is designed to stimulate one’s senses. Any well-designed garden should stimulate the senses, but a true sensory garden must place special emphasis on plants, objects, and spatial arrangements that provide various planned and reproducible sensory opportunities and experiences throughout the year. Well-designed sensory gardens can be both stimulating and relaxing.

Lerner Garden for the Five Senses

A good example of a sensory garden is the Lerner Garden for the Five Senses at the Coastal Maine Botanical Gardens in Boothbay, Maine (USA). The garden has various sections designed to bring out each sense through plantings, views, sculptures, seating, water features, and other hardscape elements. Visitors are invited to smell, touch, hear, notice and taste in many creative ways. The sensory spaces within the garden blend with each other as one moves from section to section, much like one’s own senses, and are thoughtfully sited as evidenced by the sight garden, occupying the highest ground. Located adjacent to the main entrance of the larger garden, one of the intentions of this particular sensory garden is to prepare and sharpen visitors’ senses so that they are able to better appreciate the rest of the botanical gardens.

As discussed here and in the literature mentioned, the restorative experience is aimed primarily at the restoration of one’s mental capacity. Therefore, the restorative garden and all the sub garden types discussed so far are geared toward a passive experience and designed to heal or restore mental strength.

There is another track of garden types that also falls under the healing gardens sub-category and runs parallel to the passive, restorative track. Fittingly described as the active track, the types of gardens in this track are aimed at assisting and improving the physical function of the user.



While physical accessibility is essential for a garden geared towards older adults, psycho-accessibility is also crucial.

Enabling Gardens

The definition of the word *enable* is “to provide with the means or opportunity, or to make possible, practical, or easy”. The *enabling garden* strives to make the experience of the garden accessible. Whatever the user’s issue or disability, the enabling garden aims to eliminate, or at least ease it. The use of raised beds, for example, brings plants up to a higher level so those using wheel chairs or walkers, or those who cannot lower themselves to the ground can interact with them. Square foot gardening frames and bright colours help those with low vision to locate and enjoy plantings better while ergonomic tools and design features like hanging basket pulley systems assist those with arthritis or a weak grip.

The focus of the enabling garden as a garden type is on universal and accessible design, with gardening as its goal, rather than on the restoration of mental strength. However, similar to the restorative experience, with one comes the other. Once the physical barriers to an active experience in the garden are removed, the door is opened to all types of healing experiences.

Demonstration Gardens

There are at three subcategories of the enabling garden, the first being a *demonstration garden*. These gardens often provide therapeutic programming but given that they are commonly located within larger botanic gardens, the greatest impact they have is educating visitors about enabling gardens and horticultural therapy programs. For the general public, understanding the accessibility issues in a garden is usually the first step to grasping the intent of a healing garden.

Buehler Enabling Garden

The Buehler Enabling Garden, within the Chicago Botanic Garden in Glencoe, Illinois (USA) is an excellent example of a demonstration garden. While it does run some therapeutic horticulture programs, its primary purpose is to educate visitors about accessible gardening. The materials, layout, and design details illustrate that such features can be beautiful and fit seamlessly into the overall garden design.



4. The Buehler Enabling Garden at the Chicago Botanic Garden designed by MTR Landscape Architects. (Photo: Elizabeth Diehl).

Eldercare Gardens

The next subcategory of an *enabling garden* is the *eldercare garden*, primarily designed for nursing homes, assisted care facilities, adult day care, and other facilities that specialise in the care of the elderly. These gardens must be highly accessible, whether for facilitating the act of gardening, moving through the garden, or just comfortably sitting in the garden. Design elements like railings to make movement comfortable and a variety of seating in areas with shade are important. While physical accessibility is essential for a garden geared towards older adults, psycho-accessibility is also crucial. Does the older adult user feel comfortable and secure in the garden? Are there overhead structures or plantings that extend the indoor/outdoor threshold and soften the transition of light and temperature? Are there opportunities for experiencing the garden while sitting close to the building for those not ready to venture too far? And as those older adults become more comfortable with moving further into the garden, are there new views and seating areas to support this movement?

Active Eldercare Garden

An *active eldercare garden* is a subcategory of an *eldercare garden* that is designed with more activity and movement in mind and would be appropriate for a facility with a large number of users functioning at a relatively high physical level. The space could include opportunities for active gardening, areas for exercise, and more than one pathway to provide options for walking. Areas for outdoor games such as shuffleboard or a putting green create opportunities for social and physical activity in the garden.

Dementia/Memory Gardens

Another subcategory of an *eldercare garden* is a *dementia or memory garden*. This type of garden includes all of the considerations mentioned for an *eldercare garden* along with some very specific design elements to provide safety and positive experiences for those affected by dementia. For example, the design should include a single entry and exit point, if possible, and some easily identifiable reference points to help the users navigate the space. The routing of the path should serve as a guide through the garden, avoiding t-intersections and therefore not requiring users to make any decisions about which way to go. It is best to avoid changing ground surface colours as this can be perceived as a change in elevation by an individual with dementia. A security barrier that is not visually intrusive should also be incorporated to ensure the safety of the users.

Sophia Louise Durbridge-Wege Living Garden

The Sophia Louise Durbridge-Wege Living Garden in Grand Rapids, Michigan (USA) is a good example of a dementia/memory garden. Designed for individuals affected by Alzheimer's disease or dementia, there is only one entry door to the garden and a simple looped pathway that encourages walking. There is a waterfall, strategically placed to avoid access that provides a soothing sight as well as calming background sound. Perennials that were popular in earlier years provide opportunities for memory-recall led by the staff. Horticultural therapy activities take place in a small garden and orchard area.

Banora Point Dementia Garden

The Banora Point Dementia Garden in New South Wales, Australia provides cognitive and sensory stimulation through the inclusion of destination points such as clothes lines, folding benches, chicken coops and raised vegetable garden beds. These active destinations have been carefully incorporated to allow the residents to engage in meaningful and familiar experiences with staff and family.

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Defining healing environments with clear language also makes it easier to plan, design, and implement these gardens, and just as importantly, compare and evaluate healing garden settings as well as the activities and outcomes they support.



Therapeutic Gardens

The third sub-category of enabling gardens is a therapeutic garden. The focus of such a space is a therapeutic intervention of some kind. The definition of the term *therapeutic* is “relating to the treatment of disease or disorders by remedial agents or methods”. Therefore, a therapeutic garden should support the prescribed treatment for the patient or client, and in doing so help the facility with which it is associated meet its goals. The garden should be designed to produce a measurable outcome, just as a medication is expected to produce a desired effect. Although usually designed for use as a component of a treatment program such as occupational therapy, physical therapy, or horticultural therapy programs, a therapeutic garden may also exist on its own as an extension of an indoor therapeutic program area or a part of a larger healing garden.

Physical Therapy Gardens

A *physical therapy garden*, a sub-type of a therapeutic garden, is a space designed to support physical rehabilitation and to provide an environment where goals could be set and measured consistently.

Kennedy Krieger Institute Therapy Garden

A great example of a physical therapy garden is the Kennedy Krieger Institute Therapy Garden in Baltimore, Maryland (USA) that serves children and adolescents with disorders of the brain, spinal cord, and musculoskeletal system. The garden is designed to complement the work of the therapy staff and is made up of a series of outdoor rooms that provide a setting for physical and cognitive therapy. The designers incorporated a variety of spatial scales, paving patterns, textures, and elevation changes, linking them all with a series of water elements to make the space appealing for the children.

Horticultural Therapy Gardens


A *horticultural therapy garden* is another type of therapeutic garden that is designed to use plants and plant-based activities as a remedial intervention in supporting both the goals of the facility as well the individual’s treatment plan. Managed by a trained therapist, horticultural therapy gardens are variable in terms of design. Some gardens are completely barrier free so that nothing gets in the way of the people-plant experience. Others may combine elements of both horticultural therapy and rehabilitation that aid in the therapeutic intervention.

Schwab Rehabilitation Hospital Therapeutic Rooftop Garden

The therapeutic rooftop garden at Schwab Rehabilitation Hospital in Chicago, Illinois (USA) offers several rehabilitative programs designed to maximise the healing benefits of plant-based horticultural therapy activities. Therapists use methods of treatment like motor co-ordination, relaxation, leisure skills training and sensory stimulation to benefit the users.

Conclusion

This paper serves as a summary of a hierarchical framework of healing garden types. While this discussion provides general guidelines for the design and function of each garden type, it is important to recognise that none are absolute – not only is there bound to be overlap in garden types but also many gardens may have multiple purposes. The intention of this hierarchical framework is to understand the distinctions and relationships between healing garden types. In addition, this framework is by no means complete; there are additional garden types that could be inserted and others that could shift position based on the primary function of the particular example. However, the basic structure of the framework – dual tracks of primarily active or passive gardens – remains constant.

A healing garden framework, such as the one presented here, is critical so that professionals can talk intelligently about the distinctions between the types and avoid imprecise descriptions that may dilute efforts to educate and persuade stakeholders to embrace and support the development of healing gardens. Defining healing environments with clear language also makes it easier to plan, design, and implement these gardens, and just as importantly, compare and evaluate healing garden settings as well as the activities and outcomes they support. 

5. The Family Life Garden at the Gift of Life Family House designed by Design for Generations, LLC. (Photo: Jack Carman, Design for Generations).