



Healing Gardens: Nature's Prescription for Wellness

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Abstract:

Mental health issues are becoming increasingly common as a result of changing lifestyles and rising urbanization, particularly in locations with little natural space and high population density. With their roots in antiquated customs and growing popularity, healing gardens provide a useful remedy. These urban gardens incorporate therapeutic features and offer advantages including stress relief, better mental health, and increased well being. Healing Gardens are being used more often in hospital settings to improve patient outcomes and staff happiness. They are intended to encourage both active and passive engagement with nature. These thoughtfully designed gardens serve as healing havens in the middle of the city, improving the general quality of life for city people with sensory components, easily accessible layouts, and wildlife-friendly vegetation.

Keywords: Mental health, Healing Gardens, urbanization, stress relief, well-being.

Introduction:

Over the world, expanding urbanization and lifestyle shifts have drawn more attention to mental health issues. Urban surroundings, with their concrete landscapes and over 350 million depressed individuals globally, are frequently associated with an increase in mental health issues. As essential parts of green spaces, flower gardens have become increasingly important in resolving these problems. Horticultural plants have long been used for therapeutic purposes, going back

thousands of years. Horticulture was known to have mood-enhancing qualities as early as 2000 BC in Mesopotamia. The Persians established a pattern for the incorporation of nature into human well-being in 500 BC when they created gardens with aromatic and bright flowers to entice the senses.

Incorporating gardens into a variety of environments, such as urban parks or residential care facilities, not only improves the aesthetic and environmental quality but also benefits people's general well-being.

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The need to lessen the negative consequences of urbanization and aging populations is what motivates modern scientific interest in the advantages of nature, especially flower gardens. According to World Bank predictions seven out of ten people will live in cities by 2050. This growing alienation from natural surroundings has sparked interest in the ways that nature affects health and well-being. Numerous advantages of green areas have been documented by research, including lowered stress levels, better mental health, and increased cognitive performance. Particularly, flower gardens in medical facilities like hospitals and rehab centers have shown to significantly boost staff satisfaction and patient outcomes. In order to support emotional, mental, and physical health, these gardens also referred to as healing or restorative gardens are being included more and more into hospital architecture. By integrating natural elements such as lush greenery, calming water features, and sensory experiences, healing gardens help alleviate stress, elevate mood, and improve overall quality of life for those dealing with various medical conditions and life challenges.

History

Healing gardens are based on a novel and ancient concept. Since the beginning of human settlement and community development, natural healing spaces have

existed in nature. The oldest Western hospitals and infirmaries relied heavily on plants, herbs, and enclosed gardens to aid in the healing process. The benefits of urban green spaces for health and wellness, including parks, greenways, schoolyards, and private gardens, have long been recognized.

It is believed that these spaces are vital to a city's health. In ancient Egypt, expansive gardens served as both a refuge for healing and a way to escape the outside world. However, by the late 20th century, the connection between nature and health had all but vanished, and landscaping had reduced to cosmetic greenery. Beginning in the 1990s, there was a rebirth of the idea of Healing Gardens in the field of sustainable landscape studies. The notion of healing gardens is currently experiencing a resurgence in popularity due to the poor living and environmental conditions that people experience globally.

The healing gardens

Healing gardens are spaces created with specific design elements to lower stress and enhance both physical and mental health. These gardens, sometimes referred to as outdoor therapeutic facilities, provide areas for rest, hiking, and observation. They promote both physical and psychological healing by reducing the detrimental effects of stress on health. Healing gardens combine two essential

design tenets: passive gardens, which offer therapeutic advantages through auditory and visual experiences, and active gardens, which entail direct engagement with the environment (e.g., planting and gardening). Both ideas are incorporated into well-designed healing gardens to promote general health.

The science of garden therapy

Gardening positively impacts mental health through a blend of physical activity, social interaction, and nature exposure. Engaging in gardening activities helps counteract social isolation. The social benefits of such projects extend to delaying symptoms of dementia, potentially due to the combined effects of social engagement and physical exercise. Additionally, gardening provides a more enjoyable and sustainable form of exercise compared to formal settings, aiding recovery from conditions like myocardial infarction or stroke. By integrating gardening into daily routines, individuals can enhance their mental well-being, reduce symptoms of anxiety and depression, and benefit from a supportive community environment.

Healing gardens are classified under four types:

➔ **Meditation gardens:** Meditation gardens are small, confined, serene, and calm spaces. Their design incorporates focus-point concentration, which aims to enhance inner serenity and concentration while

reducing everyday life stress and promoting healing.

➔ **Therapeutic gardens:** Therapeutic gardens serve as a sanctuary for individuals seeking solace from hectic surroundings. These gardens, which are also known as treatment centers, are made to provide individuals with possibilities for hiking, walking, relaxing, and observation as well as physical, psychological, and physiological relief. They also provide them a chance to improve their physical motions and motivations. When people spend their time in these gardens typically, they are able to activate all five senses and discover healing and tranquility.

➔ **Restorative gardens:** For the benefit of both patients and healthy individuals, restorative gardens are built. Healthy individuals are encouraged by these gardens to learn how to be confident in social situations. When people spend time in these gardens, they provide them with comfort and help them become ready for introspection or they generate a sense of community. Restorative gardens were designed using behavioral and social science ideas.

➔ **Enabling gardens:** Enabling gardens provide entertainment for individuals of all ages based on their individual capabilities and constraints. These gardens are

especially designed with the elderly and disabled in mind. Safety and ease of use are the most important factors to consider when creating sites for the elderly and disabled.

Elements of a healing garden

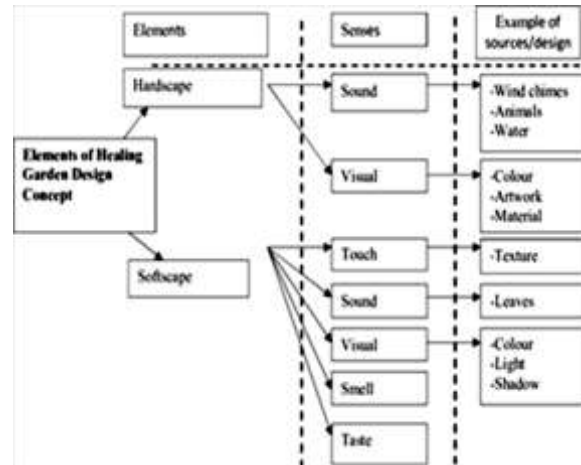
Forrest and Clark-McDowell, in their 1998 book "The Sanctuary Garden," assert that the importance of acknowledging and respecting the relationship between humans and the natural world and the spirit is greater than that of focusing solely on plants. They suggested adding a variety of components to improve the therapeutic effects of these gardens, including distinctive entrances, water features, colors, garden features, and particular plants.

The physical properties of these components are defined in part by the design elements, which include "line, form, color, texture, and visual weight". To arrange or organize these elements to produce a visually appealing design, design principles of proportion, order, repetition, and unity is used. These elements can be arranged or organized in accordance with the design principles of "proportion, order, repetition, and unity" to produce a visually pleasing and harmonious landscape.

Framework to design healing garden

The landscape architect's main goals when constructing a healing garden are to

facilitate the healing process and create an outside space that both supports and enhances it. To guarantee that the garden is effective, important factors to take into account are the location of the garden and the selection of suitable structural and botanical elements.



Source: Hamzah et al., 2020

Site Selection

a) **Accessibility:** When designing healing gardens, it's essential to ensure easy access and transportation. These gardens, often located in city parks or health facilities like hospitals and nursing homes, should be easily reachable for visitors and service providers.

b) **Topography:** The site's topography influences the design and functionality of the healing garden. It affects the size of the facility, the layout of entrances, emergency vehicle access, and service routes. Proper planning is required to account for how topography impacts both

the aesthetic and practical aspects of the design.

- c) **Noise:** Natural sounds in healing gardens, such as rustling leaves, flowing water, and bird songs, have beneficial effects on people. Therefore, it's important to choose locations away from noisy traffic and urban areas during the site selection and design process.
- d) **Landscape:** The landscape plays a crucial role in shaping the first impression of any site, including healing gardens. Effective landscape design is vital for therapeutic green spaces, as visual access to natural elements can be healing for patients.

Layout

- a. **Clear View:** The garden design ensures a clear, unobstructed view from the entrance, accessible via a simple, winding circular pathway.
- b. **Convenient Destinations:** It features various areas such as terraces, tabernacles, booths, or summer villas with ample seating and space for social activities and scheduled events.
- c. **Privacy and Safety:** Shrubs are used to conceal fences and walls, creating a secure environment without feeling enclosed.
- d. **Variety of Options:** The garden offers a range of seating, pathways, vistas, and destinations to enhance user experience.

e. **Sense of Community:** It provides expansive views of the landscape, helping users feel connected to a larger community.

f. **Gardening Area:** A designated space for gardening, including raised beds, a tool shed, and large containers, allows the elderly to engage in familiar activities.

g. **Accessibility for Wheelchair Users:** The garden includes sensory plants that are accessible for wheelchair users to touch and smell.

h. **Comprehensive Oversight:** Caretakers should be able to monitor the entire garden from any location within it .

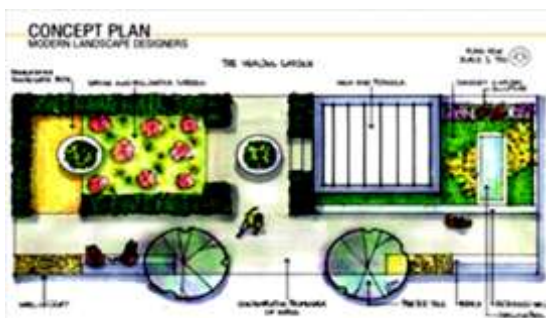
Visual Communication

Signs and visual communication done well are essential to improving the garden visiting experience. Clear communication of information can be facilitated by the purposeful use of graphic components like photos, plans, colors, font, and positioning. The requirements of the elderly and those suffering from cognitive impairments, such as dementia, require special consideration. In the garden and other green spaces, consistency in texture, material, color, contrast, and text is crucial. However, too much information may confuse the view and make individuals feel overwhelmed or confused, especially in a potentially stressful situation.

Planting Design

The goal of urban biodiversity and conservation initiatives is to improve health and quality of life by incorporating ecological concepts into city planning. Urban landscapes with a variety of plant life become hospitable places with a welcoming quality, and the presence of dynamic and seasonal plant elements enhances people's well-being. Good landscape design makes use of plants for both decorative and practical purposes, promoting human health and offering therapeutic benefits through wildlife-attracting and native plant-filled landscapes.

Principles for designing a healing garden



Source: Cantieni et al., 2019

i. User Needs: The initial step in the design process involves understanding the user's needs and the site's conditions. With this, we can organize the hardscape elements and plants. The requirements of staff members, patients, and their families, among other possible users should be taken into consideration. The garden's design should be made in such a way that

the age ranges are taken into account and medical issues that it will benefit. According to Cooper Marcus and Barnes, a key element of therapeutic design is understanding how people perceive and interpret their surroundings. This involves being aware of how individuals view their environment and how they react to it.

ii. Simplicity: It should be made sure that the layout of the garden is uncomplicated and user-friendly. This involves creating an arrangement that is easy to navigate and understand. Clear, unobstructed paths and spaces reduce the risk of accidents and make it easier for users to engage with the garden. An uncomplicated design ensures that visitors, whether they are patients, caregivers, or other users, can move through the space without confusion or difficulty. Clearly delineated spaces and paths add to a feeling of safety and tranquility. For example, separate zones can be designated for relaxation, social interaction, sensory stimulation, and physical activity. This separation helps users easily identify and access the areas that best meet their needs or preferences, reducing potential stress and increasing the garden's effectiveness as a therapeutic environment.

iii. Minimize Distractions: To establish a calm atmosphere, outside stimuli like

noise pollution should be lessened. External stimuli, such as traffic or construction noise, can disrupt the garden's calming atmosphere and hinder its therapeutic benefits. By incorporating features like dense plantings, water elements, and physical barriers, unwanted sounds can be reduced and serene environment can be fostered.

- iv. **Comfortable Transitions:** The transitions between the garden's different sections should be simple to utilize. It entails creating easy-to-use, intuitive paths between various spaces to guarantee accessibility and ease of mobility. When transitions are smooth and uncomplicated, guests may move around the garden without feeling lost or uneasy.
- v. **Providing a variety of activities:** It is essential to cater to various communication needs by offering a range of activities. Some areas may be less demanding, such as ponds or water features, while others, like garden cultivation, might be more challenging. These varying levels of engagement should align with the mental capacity of the visitors, ensuring that there is something suitable for everyone.
- vi. **Accessible to everyone:** Healing gardens, just like any public green space, should be designed with universal accessibility in

mind. This means incorporating features that make the garden usable and enjoyable for people of all ages and abilities from the very beginning. By embracing the "design for all" principle, we should be able to create a truly inclusive environment that welcomes everyone without the need for later modifications.

- vii. **Colour selection:** The visual appeal of a garden matters. A harmonious color palette should be created by combining predominantly soft, calming hues with strategic splashes of vibrant, uplifting colours. Soothing hues like blues and purples can have a calming influence, while vibrant shades such as red, yellow, and orange can be invigorating and more easily perceived by older people.
- viii. **Sensory Stimulation:** The garden should be designed to accommodate the physical and sensory needs of elderly individuals. Incorporating a diverse array of plants with varying leaf textures, shapes, and fragrances can engage multiple senses and trigger reminiscences. Flowers with soothing fragrances, such as roses, lavender, or jasmine, should be included to stimulate the sense of smell and promote relaxation.

Fundamental features for relaxation and engagement

A healing garden should engage visitors on multiple sensory levels, including sight, smell, and hearing. In a healing garden, it is essential to incorporate various forms of communication and emotional expressions. In 1991, Patrik Grahn identified eight characteristics linked to how environments can have a restorative effect on visitors.

Characters	Basic description
Serene	Characterized by peace and silence, free from rubbish, weeds, or disturbances. Natural sounds from wind, water, birds, or insects prevail.
Wild	Exhibits a natural, untamed quality with self-sown plants, and rocks covered in lichens and moss.
Rich in Species	Home to a diverse range of plant and animal species.
Space	Offers a sense of entering a distinct world, akin to a beech forest.
The Common	An open green field that invites relaxation and provides expansive views.
The Pleasure Garden	An enclosed, safe, and secluded refuge providing opportunities for solitude and play.
Festive	A venue for social gatherings and celebratory events.
Culture	A historically significant place that offers intrigue and connection to the past.

Source: Stigsdotter et al., 2002

The benefits of healing gardens

1. Social Support
2. Sense of charge

3. Positive Distractions
4. Reduction of Mental exhaustion
5. Reduced pain
6. Improved quality sleep
7. Lower infection occurrence
8. Attention restoration
9. Stress recovery
10. Evocation of positive emotions
11. Physical outdoor activities
12. Social integration
13. The Collective experience of nature.

Choosing flowers and plants for mental health benefits

Fragrant Plants

Scented flowers and foliage offer a unique way to engage clients' sense of smell. The sense of smell is closely linked to the brain regions responsible for memory and emotion, so the aroma of a rose shrub or freshly mown grass can evoke deep, sometimes forgotten memories, which can be particularly meaningful for individuals experiencing memory loss. Fragrant plants include varieties such as rose, gardenia, lavender, rosemary, lilac, heliotrope, chocolate cosmos, lemon balm, lemon verbena, and pine trees. Variety of mints like spearmint, chocolate mint, orange mint, and pineapple mint can be grown in containers. Additionally, prairie dropseed (*Sporobolus heterolepis*), an ornamental grass, is known to have a popcorn-like fragrance when it blooms.

Edibles

Plants that are valued for their culinary uses gives a chance to engage with the entire life cycle of these plants, from sowing seeds to growing, harvesting, and enjoying them. This hands-on involvement fosters a deeper, more mindful connection with the food they consume and the land from which it originates. The edibles include herbs such as basil, cilantro, thyme, and pineapple sage, as well as fruits like citrus and pineapple, and vegetables including tomatoes, peppers, carrots, and leafy greens.

Seasonal Annuals

Incorporating annuals into garden design ensures ongoing seasonal engagement for clients. For instance, pansies are a favored cool-season plant that adds vibrant colour during times when other plants are dormant. Other annuals to consider include geraniums, marigolds, snapdragons, straw flowers, Angelonia, sweet potato vine, and seasonal bulbs like tulips and hyacinths.

Ornamental Grasses

Ornamental grasses add a graceful touch to gardens, responding beautifully to the breeze and contributing both texture and sound. These grasses, reaching shoulder and eye level when fully grown, create delightful spaces to hide, explore textures, and soften external noises with their gentle rustling. They also spark children's imaginations. Inland sea

oats is preferred for their rattling brown seed heads, bunny tail grass for its soft, fluffy seed heads, and pink muhly for its airy, striking fall display.

Wildlife Friendly Plants

Incorporating plants, particularly native species that attract pollinators and wildlife, can enrich the garden experience for the users. A garden that welcomes various “community residents” can shift focus from self-reflection to fostering a sense of wonder and altruism. Purple cone flower draws finches with their fall seed heads. Including host plants for caterpillars and nectar-rich flowers for butterflies and hummingbirds is also essential. Lantana, bacopa, and lobelia, while other excellent choices include salvia, milkweed, pentas, butterfly bush, chastetree, Mexican sunflower, dill, and fennel for creating a wildlife-friendly garden.

Conclusion

Even in our modern, fast-paced world, people continue to have a deep connection with nature. The rapid industrialization and dense, concrete environments have negatively impacted our inner well-being. Reconnecting with nature is crucial for maintaining our mental and emotional health. This reconnection is a personal journey of rediscovery and reintegration with the natural world. Thoughtfully designed elements like shape, size, color, and texture can help restore a sense

of calm and balance, bridging the gap between nature and our contemporary lives.

Healing gardens offer benefits beyond their visual appeal, delivering profound and enduring impacts on individuals lives. These tranquil green spaces provide a valuable respite from the constant demands and stress of modern life, creating a soothing sanctuary that enhances mental, physical, and emotional well-being.

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