



Welcome to our presentation of designing therapeutic gardens for the Watermark Retirement Community. This project was completed by Kaitlyn-Ann and Olandrea.

Principles and Elements of Therapeutic Garden Design

01 Accessibility:

- Principle:
 - Ensure that the garden is easily accessible to individuals with varying physical abilities, promoting inclusivity.
- Elements:
 - Smooth pathways, ramps, and appropriate signage.
 - Seating areas designed to accommodate wheelchairs.

04 Plant Selection:

- Principle:
 - Choose plants based on their therapeutic benefits, seasonal interest, and compatibility with the local climate.
- Elements:
 - Medicinal plants with calming properties.
 - Plants that attract beneficial wildlife for added visual interest.

02 Sensory Stimulation:

- Principle:
 - Engage multiple senses to enhance the therapeutic experience.
- Elements:
 - Varied plant textures and shapes.
 - Water features for auditory stimulation.
 - Fragrant plants for olfactory stimulation.

05 Use of Color:

- Principle:
 - Leverage color psychology to evoke specific emotions.
- Elements:
 - Calming colors like greens and blue for relaxation.
 - Vibrant colors for energizing and uplifting effects.

03 Privacy and Seclusion:

- Principle:
 - Provide spaces for solitude and reflection.
- Elements:
 - Trellises, hedges, or plantings that create private nooks.
 - Well-designed seating areas with a sense of enclosure.

06 Texture and Materials:

- Principle:
 - Incorporate diverse textures for tactile experiences.
- Elements:
 - Smooth stones, rough bark, or different ground surfaces.
 - Comfortable, weather-resistant furniture.

When designing therapeutic gardens for the Watermark retirement home, we give top priority to ideas and components that are necessary to create environments that promote wellbeing. According to research, the placement of various plants is important when designing a therapeutic garden. Scent-rich varieties, like lavender or rosemary, arouse the senses, promoting calmness and lowering tension. Accessibility is still crucial; all inhabitants should be able to easily navigate wheelchair-friendly pathways. Furthermore, seclusion and privacy are essential components since they offer calm spaces for reflection and unwinding. A varied sensory experience is made possible by thoughtful plant selection, which includes adding eye-catching foliage, peaceful herbs, and vivid flowers. The use of color, particularly calming hues like green and blue, helps create a peaceful atmosphere. Adding different materials and textures, like rough walkways or smooth stones, improves sensory stimulation even further. Studies by Ulrich (1984) and Cooper Marcus & Barnes (1995) are just two examples of cited research that highlights the benefits of well-designed therapeutic gardens on lowering anxiety, elevating mood, and promoting general well-being. Our goal is to create immersive environments that promote healing, peace, and a sense of connection to nature for the residents of the Watermark retirement home by incorporating these ideas and components.

C. Cooper-Marcus and M. Barnes, *"Gardens in Healthcare Facilities Uses, Therapeutic Benefits and Design Recommendations," The Center for Health Design, Martinez, 1995. - References - Scientific Research Publishing.*

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Relaxation, Stress Reduction, and Mental Well-being:

Mental Restoration

Layout and Features:
Quiet corners with comfortable seating
for contemplation.
Water features or gentle fountains for a
soothing ambiance.



Mindfulness Spaces

Layout and Features:
Zen gardens or meditation areas with
minimalistic design.
Elements that encourage mindfulness
practices, such as walking paths or
labyrinth designs.



Therapeutic Horticulture Programs

Layout and Features:
Dedicated areas for horticultural
therapy activities.
Raised plant beds for easy access for
individuals with mobility challenges.



When it comes to the intentional components and locations that we use in the therapeutic garden design for the Watermark retirement community, we go beyond aesthetics to emphasize mental rehabilitation. Comfortable seating areas in quiet corners offer inhabitants peaceful areas for reflection and relaxation. Adding water elements reduces tension and creates a peaceful atmosphere. Examples of these features are flowing streams or soothing fountains. Furthermore, thoughtful places are carefully designed, using minimalistic design elements such as meditation zones or zen gardens. With features like walking routes and labyrinth designs that encourage introspection and calm, these areas are purposefully designed to foster mindfulness practices. Research highlights the beneficial effects of nature-induced restorative environments on cognitive function and psychological well-being, citing studies by Herzog et al. (2003) and Kaplan (1995). In addition, it is essential to have specific sections of the garden reserved for therapeutic horticulture initiatives. These areas are designed with horticultural therapeutic activities in mind. Raised plant beds provide easy accessibility, which is especially useful for people with mobility issues. Our intention is to create an immersive experience in the therapeutic garden that supports mental repair, peace of mind, and overall well-being for the residents of the Watermark retirement community by introducing these purposeful features and locations.

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Sensory Elements for Calming Atmosphere

01

Aromatherapy Gardens:

- Layout and Features:
 - Planting schemes with aromatic herbs and flowers.
 - Seating areas strategically placed for fragrance enjoyment.

02

Tactile Gardens:

- Layout and Features:
 - Plants with varied textures for touch.
 - Sculptures and installations for tactile exploration.



Sensual components are essential to establishing a tranquil and peaceful environment in the holistic approach to therapeutic garden design used at the Watermark retirement community. As mentioned earlier, the significance of plants for relaxation, mental healing, and sensory stimulation has a big influence on wellbeing as also supported by Herzog & Chernick (2000). It's imperative to embrace environmentally friendly plant choices. This strategy is best demonstrated by aromatherapy gardens, which have designs that purposefully grow fragrant flowers and herbs. There are lounging places in these gardens that are thoughtfully positioned to enhance the smell and promote relaxation. Studies by Lehrner et al. (2005) show that the presence of lavender, rosemary, or jasmine improves olfactory perceptions and aids in relaxation and stress reduction. Including tactile gardening also further enhances the sensory encounter. These gardens provide a variety of textures among their plants, which invite investigation and touch. In addition to facilitating tactile exploration, sculptures and installations also support Ulrich & Parsons's (1992) research, which shows that tactile involvement has a good impact on well-being and stress reduction. Our design attempts to create an immersive therapeutic atmosphere that nurtures the mind and body for the inhabitants of the Watermark retirement community by incorporating these sensory elements: tactile gardens and aromatherapy.

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Ulrich, Roger & Parsons, Russ. (2020). Ulrich & Parsons 1992 Influences of experiences with plants on well-being and health.

Ecological Considerations

Water Conservation Strategies:

- Exploration:
 - Investigate methods to design gardens that minimize water consumption.

Natural Pest Control Methods:

- Exploration:
 - Research natural and environmentally conscious approaches to pest control in garden settings.

Environmentally Friendly Practices:

- Exploration:
 - Research sustainable and eco-friendly practices for garden management.



An important factor in our effort to create therapeutic gardens for the Watermark retirement community is ecological considerations. Our strategy for addressing water conservation is looking at techniques that reduce water usage. According to research by Bishop (2023), effective irrigation techniques like drip irrigations and drought-resistant plant species, such as native plants, can help gardens flourish while using less water. In addition, by adopting natural pest management techniques, we investigate ecologically friendly ways of controlling pests in garden environments. To lessen dependency on chemical pesticides, studies conducted by the US Department of Agriculture in 2004 support integrated pest management, placing a strong emphasis on companion planting and beneficial insect habitats. Additionally, sustainable garden maintenance is a part of our dedication to eco-friendly techniques. Eco-friendly gardening practices that minimize environmental effect and increase sustainability, such as composting, mulching, and soil augmentation, are supported by research published in Energy (2023). Our goal is to construct therapeutic gardens that prioritize environmental harmony, sustainability, and eco-consciousness for the residents of the Watermark retirement community by including these ecological principles.

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Ecological Considerations

Wildlife-Supportive Garden Design:

- Exploration:
 - Investigate methodologies for designing gardens that serve both therapeutic and wildlife habitat purposes.

Flora Selection for Biodiversity:

- Exploration:
 - Explore the types of plants, flowers, and trees that attract and support various wildlife species.

Use of Native Plants:

- Exploration:
 - Understand the benefits of incorporating native plants into garden designs.

We are dedicated to creating therapeutic gardens that combine the advantages of therapy with the preservation of animal habitats for the Watermark retirement community. We look into techniques that allow gardens to benefit wildlife as well as people. According to research by Shanahan et al. (2019), it's critical to incorporate natural components and a variety of habitats into garden designs in order to support local animals and improve the healing environment for inhabitants. Furthermore, biodiversity is given first priority in our flora selection, which includes a variety of plants, flowers, and trees that draw and support a wide range of wildlife species. Research by Delano (2022) support particular plant species that support a healthy ecosystem in the garden by giving food, cover, and nesting places for wildlife. Examples of these species are winterberry holly for birds to eat and coneflowers for butterflies and hummingbirds. Furthermore, our method incorporates native plant usage, recognizing the advantages of using native species in garden designs. According to the article "Why Native Plants Matter" (n.d.), native plants not only preserve the biodiversity of the area but also demand less upkeep and resources while giving vital assistance to native fauna. Our aim at the Watermark retirement community is to design therapeutic gardens that are beneficial to the local fauna and also serve as dynamic environments for the inhabitants by adhering to these ecological principles.

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Integration of Therapeutic and Wildlife Elements

Cohesive Garden Design Analysis

Analyze strategies for seamlessly integrating therapeutic elements with features that support wildlife.

Challenges and Solutions

Investigate potential challenges in creating gardens that cater to both human and wildlife needs, and explore viable solutions.

Benefits of Dual-Function Elements

Explore the advantages of incorporating elements like natural sounds, water features, walking paths, and seating areas that enhance both human well-being and wildlife attraction.

Interactive Features for Well-being and Wildlife

Explore interactive elements such as sensory gardens, bird-watching stations, or educational signage that engage both visitors and wildlife.

Plant Selection for Dual Impact

Investigate the types of plants that not only offer therapeutic benefits but also support wildlife, such as pollinators.

Nature-Inspired Art and Structures

Explore the integration of art and structures inspired by nature, contributing to the aesthetic appeal for humans and potential habitats for wildlife.

To create a therapeutic garden at the Watermark retirement community that effectively combines wildlife support and therapeutic advantages, we conduct a comprehensive analysis of garden design. It is important to emphasize the significance of methods for balancing therapeutic components with wildlife-friendly qualities. Finding a balance between the demands of humans and animals can be difficult, but careful design holds the key to success. Boundaries, buffering areas, and thoughtful layout planning help to manage challenges like possible disturbances or conflicting needs.

Dual-purpose components improve both human well-being and animal attraction, which results in major advantages. For example, seating places, walking trails, water features, and natural noises not only enhance the healing atmosphere for people but also act as draws and havens for wildlife. The University of Illinois recommends that interactive features that engage both tourists and wildlife, such as sensory gardens, bird-watching stations, or educational signage, 2022.

Choosing plants that sustain wildlife and provide therapeutic benefits—such as pollinator-friendly plants—aligns with our goal. According to research by Engbersen et al. (2021), these kinds of plant selections can support sustainable agricultural output, improve ecosystem functioning, and simultaneously increase biodiversity and offer therapeutic benefits.

In addition, the garden's incorporation of naturally inspired artwork and architectural elements fulfills both decorative and practical objectives. These components enhance the area's aesthetic appeal to humans while also perhaps serving as wildlife habitats or improving the surrounding conditions.

By integrating these components into our design in a comprehensive way, we hope to create a

stimulating environment that supports biodiversity and wildlife within the Watermark retirement community while also fostering a vibrant ecosystem for the benefit of the residents.

Engbersen, N., Stefan, L., Brooker, R. W., & Schöb, C. (2021). Using plant traits to understand the contribution of biodiversity effects to annual crop community productivity. *Ecological Applications*, 32(1). <https://doi.org/10.1002/eap.2479>

University of Illinois. (2022). *How to Create a Sensory Garden*. https://extension.illinois.edu/sites/default/files/how_to_create_a_sensory_garden_infosheet.pdf

Community Engagement and Education in Therapeutic Gardens

School Programs and Partnerships

Consider establishing programs or partnerships with local schools to incorporate the garden into educational curricula.

Educational Initiatives for Visitors

Explore effective ways to educate garden visitors about the therapeutic benefits and wildlife conservation aspects of the garden.

Collaboration with Local Organizations

Consider the potential for collaborations with local organizations, schools, or healthcare facilities to enhance the therapeutic and ecological value of the garden.

Healthcare Facility Collaborations

Explore partnerships with healthcare facilities to integrate therapeutic garden visits into wellness programs or rehabilitation services.

Online Platforms for Community Engagement

Develop online platforms or social media campaigns to engage a broader community and share information about the garden's therapeutic and ecological aspects.

Strategies for Community Engagement

Develop community involvement strategies that encourage participation in the design and maintenance of therapeutic gardens.

There are different conceptual approaches in our investigation of creating a therapeutic garden at the Watermark retirement community that promotes community interaction and education. A suggestion is to look into possible partnerships with nearby schools in order to incorporate the garden into the curriculum. The goal of this partnership concept is to raise children's awareness of the environment at a young age by giving them practical learning experiences regarding the ecological relevance and therapeutic advantages of gardening.

There is also innovative educational programs to inform guests about the ecological and therapeutic benefits of the garden. The goal of these conceptual tactics is to convey the garden's dual nature of improving well-being and acting as a habitat for nearby species through interactive signs, guided tours, and informational displays.

Conceptual partnerships with schools, hospitals, and community organizations have a lot of possibilities. We hope to increase the therapeutic and ecological benefits of the garden and broaden its community impact by developing partnerships with these organizations. For example, collaborating with healthcare facilities in the concept might help us incorporate visits to therapeutic gardens into wellness initiatives or rehabilitation services, which could improve patients' recuperation and general health.

In addition, our social media campaigns and creative web platforms aim to interact with a larger population. These conceptual channels seek to disseminate information about the therapeutic uses of the garden, its ecological features, forthcoming events, and possible community involvement opportunities.

To promote possible involvement in the creation and upkeep of therapeutic gardens, conceptual community involvement initiatives are also being taken into consideration. By allowing locals and stakeholders to contribute ideas and labor, the garden will be shaped to reflect the community's overall vision and promote a sense of ownership and pride.

Through the conceptualization of these all-encompassing approaches, we hope to develop a therapeutic garden that might potentially improve residents' quality of life and function as a center for learning, cooperation, and possible community involvement inside the Watermark retirement community.

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Thank you for your time of reviewing our presentation. Have a good day!