

Design of Advent Hospital's Garden Based on the Therapeutic Garden Concept

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Abstract

The hospital environment plays an important role in supporting the healing process of patients, both physically and psychologically. However, most hospitals in Indonesia have not optimized green open spaces as healing elements. This study aims to design a garden at Advent Hospital Medan with a Therapeutic Garden concept that can provide healing effects through human interaction with natural elements. The research method was conducted through field observations, literature studies, and site analysis to determine the potential and design constraints. The results showed that hospital gardens can improve the comfort of patients, medical staff, and visitors through the application of vegetation, water, natural lighting, and reflection and meditation spaces. The healing garden design is expected to serve as a recommendation for other hospitals to improve the quality of open spaces that serve a therapeutic function.

Keywords: *Healing Garden, Therapeutic Garden, Hospital, Healing Landscape*

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Introduction

In relation to the global phenomenon of the Covid-19 pandemic, which is still ongoing, it will certainly have a significant impact on the health of the Indonesian people. Based on data quoted from the WHO, Indonesia ranks 14th in terms of the highest number of Covid cases. One of the health services playing a role in this matter is hospitals. According to the 2009 Indonesian Law, hospitals are health service institutions that provide comprehensive individual health services, including inpatient care, outpatient care, and emergency care.

North Sumatra itself has around 206 hospitals that are actively operating based on data quoted from the North Sumatra Provincial Statistics Agency, which means that North Sumatra, especially the city of Medan, also contributes to improving achievement indicators and worker indicators in the National Health System. Health services in meeting public health efforts must also be supported by the best facilities and a healthy environment. In this case, hospital gardens play a very important role in creating a healthy environment for workers and patients around them. This environment requires the arrangement and management of plants to create comfort, safety, and beauty so that it can help patients recover and increase the productivity of medical and non-medical personnel (Sulistiyantara, 2002).

Therapeutic Gardens, also known as therapy gardens, can be implemented in every hospital, so that hospital patients not only receive internal treatment, but also spiritual treatment. Considering that several hospitals in Medan also have sufficient open space to develop the concept of a therapeutic garden, the author attempted to implement this concept in one of the hospital gardens in the city of Medan.

Hospitals are healthcare institutions that provide inpatient, outpatient, and emergency care facilities. In addition to medical services, hospitals also need to pay attention to environmental aspects to support the patient's healing process. The condition of hospital gardens in Indonesia is generally not designed to be therapeutic, even though interaction between patients and green environments has been proven to reduce stress and speed up recovery.

Advent Hospital became the author's research location for implementing the therapeutic garden concept. This type C hospital covers an area of 4 hectares with a continuously expanding green open space. In addition to having sufficient land area to implement this garden concept, Advent Hospital is also a type C hospital that is currently in the process of constructing isolation rooms for Covid-19 patients. The author hopes that this design idea will be implemented at Advent Hospital in Medan.

Literature Review

2.1 Design

Designing is a series of procedures to translate the results of analysis, Presman (2009). Designing also has several stages, starting with exploring design forms based on data from the field and factors that influence it. During the exploration process, an ideal design will be obtained based on considerations of several results from the exploration. The design obtained after exploration is developed for the next stage to produce the desired design. The final stage is finishing, which serves to complete the presentation materials and show the final results.

According to Tim McGinty (1997), design, in the context of architecture, is a fundamental proposal that transforms something that already exists into something better. Design can be considered a three-part process consisting of an initial state, a method or process of transformation, and an imagined future state.

2.2 Landscape

Landscape is an outdoor space composed of natural and artificial elements, forming a harmonious unity that can be enjoyed by all human senses. Based on the views of experts such as Simonds (1983), Suharto (1994), and Zonneveld (1979), landscape is not just a physical

space, but also a complex ecological system resulting from the interaction between natural elements and human activities. Therefore, landscape design must consider the ecological balance as well as the functional and aesthetic values of each of its constituent elements.

Landscape elements consist of two major groups, namely softscape and hardscape. Softscape includes natural elements such as plants and water that serve to improve environmental quality, provide visual comfort, and support microclimate control. Meanwhile, hardscape includes man-made elements such as roads, pergolas, fences, benches, and paving materials that serve to shape space, regulate circulation, and support user activities. Both need to be designed in an integrated manner so that gardens or outdoor spaces function optimally both ecologically and visually.

In the design process, there are important compositional elements such as lines, shapes, textures, colors, and visual impressions that determine the character of a space. These elements not only affect the physical appearance but also the psychological perception of users regarding the comfort and aesthetics of outdoor spaces. Therefore, every landscape design needs to consider the harmony between function and beauty.

In addition, landscape design principles such as balance, rhythm, emphasis, simplicity, contrast, proportion, space, and unity are the main foundations for creating an orderly and attractive composition. The application of these principles helps designers achieve integration between natural and artificial elements, resulting in spaces that are not only visually beautiful but also effective in supporting the activities and needs of users. Thus, good landscape design is a combination of ecological, aesthetic, and comfort values that can provide a comprehensive spatial experience for humans.

2.3 Hospital's Garden

Gardens play an important role as part of the landscape, providing aesthetic value, comfort, and ecological functions for the surrounding environment. According to experts such as Suharto (1994), Arifin (2000), and Sinta and Muharnanto (2004), a garden is not merely a visual element that beautifies outdoor spaces, but also holds emotional and psychological values that can influence human moods. The presence of a garden can create a sense of comfort, safety, and tranquility, offering users a soothing spatial experience.

In the context of hospitals, a garden serves more than just an aesthetic purpose. As explained by Sulistyantara (2000) and Hatmoko (2009), hospital gardens play an essential role in the healing process. Plants function as the “lungs” of the environment by providing oxygen and absorbing pollutants, while garden design elements such as vegetation, water features, pathways, and lighting contribute to a refreshing, shaded atmosphere that supports patient recovery. A well-designed hospital garden not only aids patients but also provides a relaxing space for medical staff and visitors.

The users of hospital gardens consist of three main groups: patients, visitors, and staff (Marcus, 1998). Each group has different needs and behaviors. Patients utilize the garden as a space for therapy and relaxation to support physical and mental healing; visitors use it as a place for interaction and emotional support for their loved ones; while hospital staff need the garden as a resting area to relieve stress from work demands. Therefore, hospital garden design must be inclusive, taking into account accessibility, privacy, and comfort for all users.

Furthermore, there are various types of hospital gardens, each with distinct functions and purposes. According to The Centre for Health Design (CHD), these types include the Healing Garden, Enabling Garden, Meditative Garden, Rehabilitative Garden, Restorative Garden, and Therapeutic Garden. Each garden type has its own focus, ranging from physical and psychological healing to social and environmental recovery. Among these, the Therapeutic Garden holds particular importance as it is specifically designed to support medical treatment through a calming and restorative environment.

Overall, hospital gardens are vital elements that integrate ecological, psychological, and social functions. A well-designed hospital garden not only enhances the environmental quality and aesthetics of the area but also contributes positively to the health and well-being of all hospital users. By applying the Therapeutic Garden concept, hospitals can become holistic healing spaces that unite medical, emotional, and spiritual aspects within a harmonious landscape.

2.4 Therapeutic Garden

The Therapeutic Garden is a special type of garden designed to support physical and mental healing through human interaction with natural elements. According to experts such as Gerlach-Spriggs & Weisen (2002), Ulrich (1984, 1999), and Stigsdotter & Grahn (2002), a therapeutic garden is not merely an ordinary green space but a consciously designed therapeutic environment that provides tranquility, reduces stress, and aids in the patient's recovery process. This type of garden creates a calming atmosphere and offers users opportunities for meditation, reflection, and emotionally restorative experiences.

The main concept of the Therapeutic Garden is rooted in the ability of natural environments to positively influence human psychological conditions. Ulrich (1984) stated that a therapeutic garden functions as a place to alleviate physical symptoms while also supporting overall health improvement. Meanwhile, Vapaa (2002) emphasized that the healing effect of a garden is more related to its capacity to calm and restore emotional balance rather than providing direct medical treatment. Thus, the role of a therapeutic garden focuses more on offering a restorative spatial experience that nurtures the mind and emotions of its users.

In its design, a Therapeutic Garden must meet several criteria formulated by scholars such as Stigsdotter & Grahn (2002) and Marcus & Barnes (2011). These criteria include accessibility for all users, sensory stimulation, provision of both active and passive spaces, diverse vegetation, presence of water elements, and comfortable seating areas. The garden should also feature harmonious plant arrangements, wheelchair-friendly paving, soft lighting, and visual elements such as birds, butterflies, and fountains that create a soothing atmosphere. With careful planning, the garden can serve as a safe, comfortable, and inclusive environment for patients, staff, and hospital visitors alike.

Overall, the Therapeutic Garden plays an essential role in supporting the concept of hospitals as holistic healing spaces. It not only provides physical benefits such as improved comfort and air quality but also strengthens the psychological and social well-being of users through a peaceful and meaningful natural setting. By adhering to proper design principles and criteria, a Therapeutic Garden can serve as an effective environmental therapy medium that enhances human health, happiness, and overall well-being.

Research Methodology

The research used a qualitative descriptive approach with the following data collection methods:

1. Field Observation: Direct observation at the Advent Hospital site to obtain existing data, user activities, and vegetation conditions.
2. Literature Study: A review of the literature on healing landscape theory and the concept of Therapeutic Gardens from various sources such as Marcus & Francis (1998), Stigsdotter & Grahn (2002), and Ulrich (1999).
3. Site Analysis: Covering climate, circulation, and vegetation analysis, as well as identification of the location's potential and constraints.
4. Design Synthesis: Combining the results of the analysis to produce a healing garden design concept that is appropriate to the site context and user needs.

Results

4.1 Site Analysis

Advent Hospital Medan is located on Jl. Gatot Subroto Km 4, Medan Petisah District, with a land area of approximately 4 hectares and flat topographic conditions. Around 60% of the area consists of unoptimized green open space. The site is bordered by residential areas on three sides and a main road on the northern side, thus requiring shade vegetation and visual buffers to reduce noise and maintain privacy.



Figure 1. Advent Hospital, 2010



Figure 2. Location of Medan Advent Hospital

4.2 Design Concept

The *Therapeutic Garden* concept is based on four main principles:

1. Sensory: Stimulating the five senses through the use of color, aroma, and plant textures.
2. Psychological: Creating a sense of calmness, comfort, and safety for users.
3. Ecological: Providing a healthy microclimate through pollutant-absorbing vegetation.
4. Activity: Facilitating both active activities such as reflexology and passive activities such as meditation and relaxation.

4.3 Garden Zoning

The garden is designed into five functional zones (Susanto, 2011):

1. Reception Zone: A transitional area equipped with informative signage.
2. Social Interaction Zone: A gathering space featuring gazebos and garden benches.
3. Therapy Zone: Includes reflexology paths, physiotherapy areas, and small fountains as sensory therapy features.
4. Meditation Zone: A quiet area designed for relaxation and prayer.
5. Aesthetic Vegetation Zone: Consists of shade trees, flowering shrubs, and aromatic plants such as *Michelia champaca* (Cempaka) and *Pandanus amaryllifolius* (Pandan Wangi).

4.4 Main Design Elements

1. Hardscape: A wheelchair-accessible *loop* pedestrian path made of conblock, ergonomic benches, pergolas, and garden lights with low-intensity illumination.
2. Softscape: A combination of shade trees (*Swietenia mahagoni*), directional trees (*Roystonea regia*), and border plants (*Ixora sp.*).
3. Water Elements: Shallow ponds with fish and small fountains to create natural sound effects.
4. Accessibility: Ramps and handrails are provided for disabled patients.
5. The application of these design elements aligns with the *Therapeutic Garden* criteria proposed by Stigsdotter & Grahn (2002), which emphasize accessibility, spatial diversity, and sensory stimulation.

4.5 Implementation and Impact

The proposed garden design is expected to provide direct benefits such as increased comfort, reduced stress, and enhanced patient recovery—particularly for those affected by Covid-19. Additionally, the garden functions as a healthy social interaction area for hospital visitors and staff, fostering both psychological well-being and community connection within the hospital environment.

Conclusion

The design of the *Therapeutic Garden* at Advent Hospital Medan demonstrates the significant role that landscape architecture plays in supporting physical, psychological, and emotional healing within healthcare environments. The garden is conceived not merely as an aesthetic complement to hospital facilities but as an integral component of the healing process, enhancing the connection between humans and nature through sensory, ecological, and spatial design elements.

The proposed design is rooted in the principles of *therapeutic landscapes*, emphasizing accessibility, comfort, and restorative interaction with the natural environment. By integrating vegetation, water features, and comfortable seating areas, the design seeks to stimulate the senses, reduce stress, and improve mood for patients, visitors, and staff alike. The zoning system—comprising reception, social interaction, therapy, meditation, and aesthetic vegetation zones ensures that every user group can experience the garden according to their specific physical and emotional needs.

Moreover, the inclusion of both *softscape* and *hardscape* elements, such as shade trees, ergonomic benches, accessible walkways, and reflective water features, contributes to a balanced and sustainable outdoor environment. These design interventions are aligned with the criteria outlined by Stigsdotter & Grahn (2002) and Marcus & Barnes (1999), who assert that a healing garden must offer sensory stimulation, psychological comfort, and opportunities for both active and passive engagement.

In a broader sense, the implementation of this *Therapeutic Garden* can serve as a model for other hospitals in Indonesia seeking to integrate landscape design as part of a holistic healthcare strategy. Beyond improving microclimate quality and aesthetic appeal, the garden promotes emotional resilience, social interaction, and mental restoration transforming the hospital environment into a space of recovery, peace, and human well-being.

Ultimately, the *Therapeutic Garden* embodies a holistic approach to healing by harmonizing natural and built environments. It reinforces the idea that healthcare design should not only cure the body but also nurture the mind and spirit, creating a comprehensive healing experience that aligns with the principles of sustainable and human-centered landscape architecture.

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