



## THE INFLUENCE OF GARDEN ON PSYCHOLOGICAL COMFORT WITHIN THE HEALING ENVIRONMENT CONCEPT (CASE STUDY: ZAINOEL ABIDIN HOSPITAL PARK)

Zya Dyena Meutia<sup>1\*</sup>, Yasnibar<sup>2</sup>

Department of Architecture, Faculty of Science and Technology, Ar-Raniry State Islamic  
University, Banda Aceh, Indonesia

\*Email Correspondence: [zya.meutia@ar-raniry.ac.id](mailto:zya.meutia@ar-raniry.ac.id)

eReceived : 19 May 2025

Accepted : 12 June 2025

Published : 30 June 2025

### ABSTRACT

Zainoel Abidin Hospital has implemented a garden surrounding its premises to promote comfort, aesthetics, and safety. One approach to creating comfort in a hospital environment is by organizing and managing the space in both functional and aesthetic ways. This study aims to explore the perceptions of hospital users regarding the influence of the garden on their psychological comfort, based on the concept of a healing environment. The object of this study is the garden at Zainoel Abidin Hospital, with informants consisting of 10 individuals, 5 patients and 5 visitors. The method used is qualitative descriptive, with data collection techniques including observation, interviews, and documentation. The results of the study, as seen from the interviews with garden users, indicate that the presence of a garden in the hospital provides greater benefits than merely enhancing aesthetic value. Informants noted that while some users found the garden calming and beneficial, others expressed discomfort due to inadequate facilities within the garden area.

**Keywords:** Perception, Park, Users, Comfort, Hospital

### ABSTRAK

Rumah sakit Zainoel Abidin telah menerapkan taman di sekitar rumah sakit untuk menciptakan kenyamanan, keindahan, dan keamanan. Salah satu cara untuk menciptakan kenyamanan di lingkungan rumah sakit dengan melakukan penataan dan pengelolaan lingkungan rumah sakit secara fungsional dan estetika. Penelitian ini bertujuan untuk mengetahui persepsi pengguna Rumah sakit tentang pengaruh taman terhadap kenyamanan pengguna Rumah Sakit dengan konsep healing Environment. Objek pada penelitian ini yaitu taman Rumah Sakit Zainoel Abidin, responden penelitian ini adalah pasien dan pengunjung berjumlah 10 orang yaitu 5 pasien dan 5 pengunjung. Metode yang digunakan adalah deskriptif kualitatif, teknik pengumpulan data menggunakan observasi, wawancara dan dokumentasi. Hasil dari penelitian yang di lihat dari wawancara pengguna taman yaitu dengan kehadiran taman di Rumah Sakit tentu memberi manfaat yang lebih besar dari sekedar menambah nilai estetika. Responden juga menyatakan bahwa ada pasien dan pengunjung yang merasa kurang nyaman dengan taman yang ada di rumah sakit karena kurangnya fasilitas pada taman.

**Kata kunci:** Persepsi, Taman, Kenyamanan, Rumah Sakit

### Introduction

One of the health development targets in the 2020–2024 RPJMN is the development of healthy areas, which includes creating a healthy work environment and providing spaces that encourage physical activity, such as public

open spaces, particularly in public health facilities, mass transportation and intermodal connectivity, healthy environments, and reductions in air pollution.

Health issues change over time and vary across regions, often influenced by local characteristics. This study addresses national strategic goals in the health sector, which emphasize preventive efforts through the development of healthy spaces and environments (Permana et al, 2013). Although numerous studies have explored healthy and sustainable environments in various public spaces, relatively few have focused on green, aesthetically pleasing, and sustainable environments within primary healthcare facilities such as hospitals (Permana et al, 2013).

Hospitals function as institutions providing services for various illnesses and health problems (Deni et.al, 2018). To deliver optimal healthcare, hospitals must be constructed and equipped with adequate infrastructure and facilities that are well-maintained, ensuring smooth operations, spacious and non-congested rooms, and proper sanitation, all of which contribute to comfort and support the patient's recovery process (Deni et.al., 2018).

According to Saputra (2020), the arrangement of the hospital environment is crucial in creating comfort, beauty, and safety. This plays a significant role in supporting patient recovery and motivating both medical and non-medical personnel. Environmental arrangement is also mandated by Article 9 Paragraph 3 of Law Number 44 of 2009, which obliges hospitals to provide safe and comfortable services for all individuals interacting with the facility, including patients and visitors (Zahra et al, 2021).

The use of natural elements in healing has been practiced since ancient times. However, with the advancement of medical technology, their importance was gradually overlooked. Today, the role of natural elements in the healing process is being reconsidered.

One way to create comfort within hospital environments is through functional and aesthetic spatial management. Gardens within hospital areas can offer therapeutic benefits. Psychologically, they can reduce stress, provide a sense of calm and shade, and help rejuvenate one's mental state (Saputra, 2020).

Numerous studies have examined the role of therapeutic gardens in hospitals (Saputra, 2020; Permana et al, 2013; Zahra Rima Putri et al, 2021). However, there is limited research that specifically addresses garden design based on a healing garden concept and its influence on the psychological comfort of hospital users, including patients, their families, medical staff, and visitors. Therefore, this study aims to investigate the impact of garden design in offering positive benefits for its users, so that it can accelerating the healing process, reducing stress, and enhancing daily functioning aligned with user needs and hospital space functions.

Hospital gardens can significantly influence the psychological state of users (Kaniaa, 2010). A well-designed garden can induce a sense of calm, which helps reduce the effect of pain on patients, so it can be said that the garden supports the effectiveness of healing a person's illness. Parks in the hospital area can provide healing to humans. The intended psychological effect is to relieve stress for patients, as well as provide calm and shade and rejuvenate a person's mental condition (Saputra, 2020).

In terms of perception, there are three levels considered relevant to human cognition: sensory recording, pattern recognition, and attention (Suharman, 2005). Perception begins with the reception of stimuli by the senses,

leading to a response that enables individuals to become aware of their surroundings. Environmental perception involves cognitive (thinking), affective (emotional), interpretive, and evaluative components that emerge in response to sensory stimuli. Perception is inherently individual; despite similar stimuli, responses may vary due to differences in opinion and cognitive ability (Pomerantz, 2014).

According to Tembeleka (2011) landscape or garden architecture is the art of planning, designing, and organizing natural and artificial elements to balance functional needs and resource preservation, ultimately creating an environment that fulfills both physical and spiritual needs. This emphasizes the integration of functionality and aesthetics in planning.

Plants play a vital role in enhancing comfort and supporting the healing process. Trees, shrubs, and ground cover are selected based on their shading, edging, directional, landscape, and aesthetic functions, and are distributed across areas according to their intended use. A green zone system is recommended, including buffer plants or trees at settlement fronts to mitigate the impact of disasters like tsunamis, floods, and landslides. Protection systems using generators can help control water movement. Additionally, vegetation helps reduce temperature, lowers CO<sub>2</sub> levels, and maintains climate humidity, serving as an environmental protection system (Meutia, 2021).

The healing environment is a therapeutic design concept aimed at supporting psychological recovery (Michael, 2010). Therefore, many hospitals have adopted healing environment principles in their physical design (Knecht, 2010). This concept is grounded in research demonstrating that environmental factors significantly affect the quality of patient recovery (Michael, 2010). The concept includes three approaches: the natural approach, sensory stimulation, and the psychological approach.

Both natural and built environments greatly influence recovery, not only physically but also psychologically (Afra et al, 2017). A good mental state has a positive impact on a person's physical condition and accelerates the healing process.

Another approach in this concept is through sensory stimulation, which includes hearing, sight, smell, taste and touch. The healing environment concept focuses on creating a positive impression through human senses, such as visual ambience, sound, aroma, and texture. The concept of natural environment plays an important role in hospital design, as through these natural elements, sensory stimulation therapy can be delivered (Aripin, 2006).

Thus, the healing environment concept integrates natural and man-made elements to establish an atmosphere conducive to patient healing, both physically and psychologically. The use of natural elements, such as plants and water, combined with sensory stimulation through human senses, positively impacts overall well-being (Zahra et al, 2021).

This study aims to examine the influence of the hospital garden on the psychological comfort of users at Zainoel Abidin Hospital, using the concept of a *healing environment*. Although a garden has been developed at the hospital, its actual impact on users' psychological comfort has not yet been studied.

## Method

Based on the formulation of the problem and the objectives of the research, this study adopts a qualitative research method. The qualitative approach is used to understand core phenomena, where researchers conduct interviews with visitors by asking general or broad questions (Abdulwahab, 2017). This study employs a descriptive qualitative method, which is based on current information and aims to solve contemporary problems (Manab, 2015).

The object of the research is Zainoel Abidin Hospital, located at Jl. Tgk. Moh. Daud Beureueh No.108, Bandar Baru, Kuta Alam Sub-district, Banda Aceh City. The research site was selected based on the criterion that the hospital features a landscaped garden, making it a suitable object of study. In a qualitative approach, data collection instruments include observation, interviews, and documentation. Observation was carried out to analyze the physical condition of the Zainoel Abidin Hospital (RSZA) garden. Interviews were conducted to obtain insights regarding the use of the garden at RSZA, while documentation was collected to provide evidence that the data obtained in the field reflects the actual condition of the object.



**Figure 1.** RSUDZA Hospital Park

This study used purposive sampling, a technique in which samples are selected based on specific criteria. The selected age range for participants was between 16 and 50 years, as individuals within this age group are considered to have the cognitive capacity to assess comfort in a park setting. The purpose of purposive sampling in this study was to ensure the selection of respondents who could provide mature and relevant perspectives on environmental comfort within hospital grounds. A total of 10 informants were interviewed, consistent with the qualitative emphasis on the depth and quality of data. The selected categories of informants included patients, patients' family members, and medical personnel at Zainoel Abidin General Hospital.

**Table 1.** Assessment Instrument (Yes/No) Application of the Healing Environment Concept (Afra et al, 2017; Zahra et al, 2021) in the Zainoel Abidin Hospital Garden.

No.	Implementation of garden outside the Hospital building (RSUZA)	Assessment	Explanation	Documentation
		Yes/No		
1.	<i>Sustainability</i>			
2.	<i>Sensitivity to natural cycles</i>			
3.	<i>Partnership</i>			
4.	<i>Diversity</i>			
5.	<i>Interdependence</i>			

The table above is an instrument designed to guide the researcher in addressing the research questions regarding the application of the healing environment concept in the garden of Zainoel Abidin General Hospital. The points to be assessed include plant design elements and the implementation of healing environment principles, in accordance with the literature review.

## Results and Discussion

This study investigates the implementation of the healing environment concept in Zainoel Abidin General Hospital (RSUZA). The concept aims to create a calming natural atmosphere through the use of elements such as plants, water, wood, and stone. These elements are intended to support natural healing and promote a sense of tranquility and peace among patients while enjoying the green-lined RSUZA garden. The purpose of applying the healing environment is to foster optimism, enhance patients' morale, and encourage a positive mindset throughout the healing process. This concept encompasses two main aspects: the natural environment and human psychology. The implementation of a healing environment in hospitals is crucial in supporting the healing process of patients, in addition to medical factors that must also be fulfilled. Hospitals need to provide comprehensive treatment options, both medical and non-medical. By applying the healing environment concept, hospitals can maximize their role in the overall healing process of patients (Afra, dkk, 2017; Zahra, 2021; Knecht, 2010).

Below are the findings based on the assessment instrument of the healing environment concept applied to the Zainoel Abidin Hospital garden:

### 1. *Sustainability*

RSUZA garden has existed for a long time. With increasing population and growing public awareness of environmental issues, more visitors are seeking open spaces that are both beautiful and environmentally friendly. Therefore, RSUZA created a sustainable garden using native plants and existing geographic features to preserve natural resources and enhance the quality of environmental life. However, one drawback noted by visitors is the limited availability of garden facilities such as benches, observation towers, and lighting. The following is an excerpt from an interview with an informant related to sustainability.

“Comfortable, indeed the role of the garden is very important, especially in hospitals, because when you are outside in the garden area your mind becomes calm (interview informant C)”.



**Figure 2.** RSUZA Garden

## 2. *Sensitivity to Natural Cycles*

Through planned and strategic spatial proximity requirements, RSUZA's healing environment can be enhanced or reduced and the ambience changed through the use of movable partitions and varied lighting arrangements. The following is an excerpt from an interview with an informant related to sensitivity to natural cycles.

“My response is of course that the garden in this hospital is good enough for a hospital setting. However, it would be better if the garden at Zainoel Abidin Hospital were more functional such as by adding benches or gazebos for family time because those in the park are not only patients but also visitors to the patient's family, and also medical staff (interview informant A)”.



**Figure 3.** RSUZA Inner Courtyard

## 3. *Partnership*

The Zainoel Abidin Hospital garden demonstrates a harmonious relationship between humans and nature, The garden is well-maintained and clean, and the presence of plants contributes to the production of

oxygen while also absorbing carbon. In a healing environment, healing partnerships are promoted, whose characteristics encourage the creation of relationships between humans and nature. Trees contribute greatly to humans and all living things by providing free oxygen, but unlike other living things on earth, trees also store carbon. The existence of trees is essential for the survival of humans and the universe. The following is an excerpt from an interview with an informant related to partnership.

“In the garden area in this hospital building, there are various types of flowers with diverse scents, some have a pleasant aroma and some have a pungent smell, of course there are many insects that come such as butterflies because the garden area is fragrant in full of flowers with various aromas (interview informant B)”.



Figure 4. RSUZA Garden

#### 4. *Diversity*

In the RSUZA garden, the spatial components of the healing environment vary in adaptive healing according to the changing needs of long-term healing. The purpose of this observation is to find out the relationship between public space and the surrounding environment of Zainoel Abidin Hospital, especially the extent to which the diversity of the public space environment affects the success of the public space. The following is an excerpt from an interview with an informant related to diversity.

“A park that can function properly. A park that is truly a place of therapy for patients, not just an aesthetic park (interview informant D)”.

#### 5. *Interdependence*

The principle of interdependence is reflected in how the environment and human health interact. Healing environment in Zainoel Abidin Hospital Therapy Park exemplifies this principle. For instance, the textured floor in the front yard, made of small stones, provides therapeutic benefits for rheumatic conditions. The following is an excerpt from an interview with an informant related to interdependence.

“Of course you can, although the park has wide and accessible circulation, but still with the help of family or caregivers to bring to the park area, there is no way we let patient go alone, it's common to take them out to get fresh air in the garden (interview informant E)”.



**Figure 5.** The garden area in front of RSUZA

## Conclusion

Based on the results of research and interviews conducted with users of Zainoel Abidin General Hospital (RSUZA) garden, it can be concluded that:

The application of the *healing environment* concept in the RSUZA garden has produced both positive and negative perceptions among hospital users. Some respondents acknowledged the positive impact of the garden, noting that it offers more than just aesthetic value. The presence of greenery and living plants contributes to a fresher atmosphere, improves visual comfort, reduces noise from surrounding vehicles, and helps protect hospital buildings from direct sunlight, thereby enhancing indoor thermal comfort.

To enhance the utility of hospital gardens, it is recommended that hospitals provide additional supporting facilities, other respondents indicated that the garden's current facilities are insufficient to fully support user comfort. The absence of essential features such as benches, gazebos, and adequate lighting reduces the functionality of the space, particularly for visitors, patients, and medical staff who wish to use the park for rest, recovery, or leisure.

## References

- Afra, M., & Nuffida, Nur, Endah. (2017). Aspek Alam sebagai Bagian Therapeutic Architecture pada Rumah Sakit Ketergantungan Obat. Jurnal Sains dan Seni ITS. 6 (1).
- Deni, M., Yakup, Y., & Sodikin, E. (2018). Perancangan Taman Rumah Sakit Umum Daerah Kabupaten Ogan Ilir (Doctoral dissertation, Sriwijaya University).
- Knecht, Michael L. (2010). Optimal Healing Environments. Healthy Communities by Design: Redlands and Loma Linda, CA.
- Meutia, Z.D., Trimafika, S., Darnas, Y. (2023). Capability of Green Open Space Vegetation Reducing Carbon Emissions in The Transportation Sector (Case Study of The Simpang jam Area in Banda Aceh City. Indonesian Journal of Environmental Sustainability 2 (1), 52-58.
- Permana, F., Sarwadana, S. M., & Mayadewi, N. N. A. (2013). Pengelolaan Lanskap Rumah Sakit Umum Daerah Patut Patuh Patju Kecamatan Gerung Kabupaten Lombok Barat Provinsi Nusa Tenggara Barat. E-Jurnal Agroekoteknologi Tropika. 2(1). 7-17.

- Pomerantz, A.M. (2014), Psikologi Klinis. Edisi 3. Yogyakarta: Pustaka Pelajar.
- Saputra, A., Negara, Z. P., & Yakup, Y. (2020). Perancangan Taman Rumah Sakit Umum Daerah Tipe C Di Kabupaten Empat Lawang. (Doctoral dissertation, Sriwijaya University).
- Sugiyono. (2016). Metode Penelitian Kuantitatif, Kualitatif dan R&D. Bandung: PT Alfabet.
- Susanto, J. (2011). Perancangan Taman sebagai penunjang aktivitas Rumah Sakit di Rumah Sakit DR. H. Marzoeqi Mahdi, Bogor. (Bogor: IPB).
- Zahra R, P., Mohamad., M, & Bambang, T. (2021). Lanskap Terapetik sebagai strategi pemulihan pasien kejiwaan pada desain Rumah Sakit di Yogyakarta. Jurnal Ilmiah Mahasiswa Arsitektur Vol 4 NO 1, Januari 2021.