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APPLICATION OF HEALING ARCHITECTURE IN THE INTERIOR OF A CANCER FIGHTER SHELTER HOUSE

[1]Cut Devi Intan Sukma, [2]Didit Widiatmoko Suwardikun, [3]Hanif Azhar, [4]Yanuar Rahman [5]Santi Salayanti
Telkom University, Indonesia
[1]cutdeviintansukma@student.telkomuniversity.ac.id,
[2]diditwidiatmoko@telkomuniversity.ac.id,
[3]hanifazhar@telkomuniversity.ac.id, [4]vidiyan@telkomuniversity.ac.id,
[5]santisalayanti@ telkomuniversity.ac.id

Abstract

The increasing number of cancer patients in Indonesia encourages the need for adequate supporting facilities, especially for patients outside the region who undergo treatment in Bandung and need a temporary place during the healing process. Yayasan Rumah Cinta Insani in Bandung is one of the halfway houses that accommodates cancer patients, especially children to adolescents and their families. However, the inadequate layout, facilities, comfort, and accessibility make this environment unable to fully support the healing process. Applying the Healing Architecture concept to the interior of the halfway house is a key solution to create an environment that is healthier, safer, and supports the physical and mental well-being of patients. Key design elements include natural lighting, ventilation, color, comfort, and accessibility. This research uses a qualitative method with a Design Thinking approach, including five stages: empathize through observation and interviews with patients, caregivers, and managers; define the main problem to find a solution; ideate presents ideas; prototype as the result; and test to evaluate the proposed design. The goal is to produce a more humane, flexible, and efficient halfway house. The expected result is an environment that supports holistic healing, improves comfort for patients and families, and adapts to resident needs.
Keywords: healing architecture, interior design, halfway house, cancer.

INTRODUCTION

Cancer is one of the most complex global public health challenges, and Indonesia is among the countries with high cancer prevalence rates. Based on the Global Cancer Observatory (Globocan) report released by WHO in 2020, there were 396,914 new cases of cancer and 234,511 cancer deaths in Indonesia. This figure reflects a health crisis that not only requires attention in terms of medical treatment, but also in the provision of supporting facilities that can help the patient's healing process, especially for those who come from out of town and need a temporary place to stay while undergoing therapy. Halfway houses are a solution for patients and families in providing temporary accommodation near the hospital. However, the condition of halfway houses in Indonesia in general is still not designed with an approach that can support the holistic recovery of patients. One of the halfway houses that became the object of this research is Yayasan Rumah Cinta Insani located in Bandung. This halfway house accommodates

pediatric and adolescent cancer patients and their caregivers. However, the observation showed that the condition of the halfway house still did not support the healing process optimally. Problems such as minimal natural lighting, inadequate ventilation, limited accessibility, and space zoning that does not pay attention to privacy are the main issues that need to be addressed. In this context, the Healing Architecture approach is the main theoretical basis used in this research. The concept of Healing Architecture emphasizes the importance of space design that supports the physical and emotional comfort of users, accelerates the healing process, and creates a healthy and inclusive environment. Healing Architecture is based on the theory of environmental psychology developed by Kurt Lewin (1943), which states that human behavior is strongly influenced by the environment in which it occurs. In the context of halfway houses, an unsupportive environment will increase stress levels and worsen the psychological condition of patients, especially children who have high emotional sensitivity. Therefore, the design of the halfway house space should consider elements such as natural lighting, soothing colors, good air circulation, and a safe and comfortable atmosphere. This research aims to implement the principles of Healing Architecture in designing a halfway house that is not only functionally feasible, but also able to be part of non-medical therapy for its residents.

Another theory that forms the basis of this research is the Biophilic Design Theory developed by Fromm, E., & Wilson, E. O. (1984). This theory states that humans have a biological need to interact with nature. Human connectedness with natural elements is proven to reduce stress, improve mood, and accelerate healing. In shelter design, the application of this theory can be realized through the use of indoor plants, natural materials such as wood and stone, as well as optimal natural lighting and ventilation. The integration of natural elements in the design not only beautifies the space, but also has a positive impact on the mental and emotional health of patients. In addition, the principles of Universal Design introduced by Mace, R. L. (1997) are also an important reference. Universal Design aims to create an environment that can be accessed and used by everyone without the need for additional adaptations. In a halfway house inhabited by pediatric patients with various physical conditions and ages, accessibility is a crucial factor. Wheelchair-friendly circulation paths, accessible doors and furniture, and inclusive bathrooms are some of the aspects that must be implemented to create a truly inclusive space. In developing the design solution, this research used the Design Thinking approach, which places empathy for users at the center of the design process. This approach involves five stages, namely empathize, define, ideate, prototype, and test. This process enables a design that is not simply based on assumptions, but built from real user needs obtained through interviews, observations, and questionnaires. This approach is reinforced by the Design Council UK's Double Diamond framework which divides the design process into two broad phases: problem exploration and solution development. The combination of the two provides a systematic and flexible

working structure to create contextualized and applicable design solutions. Another problem found in this halfway house is the absence of adequate learning and play spaces for pediatric patients. Education is a child's right that should not be neglected, even when they are undergoing cancer treatment. Therefore, the design of learning spaces that support children's cognitive and emotional stimulation is very important. In addition, green open spaces that can be used as nature therapy are also needed to support the holistic healing process. This is in line with the results of Sturge & Duff's research (2022) which states that the presence of green open space and private space can improve the quality of patient recovery. The condition of the halfway house, which is currently rented and does not have a fixed design, is also a challenge. Therefore, a flexible design that can be adapted to various building conditions is one of the main focuses in this research. In addition to the physical design aspect, this research also highlights the importance of sustainable support systems, such as digital fundraising, partnerships with educational and health institutions, and the involvement of the design community in the revitalization process of the shelter. This research is expected to make theoretical and practical contributions to the design development of non-medical facilities that focus on healing. Theoretically, this research enriches the literature on the application of the concept of Healing Architecture in the context of halfway houses, which has so far been minimally discussed. Practically, the results of this research can serve as a reference for halfway house managers, architects, and interior designers in designing spaces that not only meet technical standards, but also support overall healing. Thus, the urgency of this research is not only based on the increasing number of cancer patients, but also on the urgent need to create a more humane and empathetic space for patients and their families. A halfway house is not just a temporary residence, but rather part of a healing system that must be consciously and structurally designed. Through the integration of environmental psychology theory, biophilic design, universal design, and a participatory approach through design thinking, it is hoped that the halfway house can truly become a space that is healing, inclusive, and sustainable.

The concept of Healing Architecture also has a close relevance to the Sustainable Development Goals (SDGs), especially the third goal regarding good health and well-being. In the context of halfway houses, space design that takes sustainability factors into account not only contributes to user comfort, but also reduces environmental impact and resource efficiency. The use of local materials, energy-efficient lighting, and optimized natural ventilation are part of a sustainable design strategy that aligns with the principles of healing architecture. At the same time, it is important to emphasize the role of the community in the development and management of the halfway house. Participatory design that involves users, including patients, caregivers, and managers, can create a sense of ownership and shared responsibility for the space they occupy. This is in line with the participatory design approach as proposed by Lundin (2021),

which emphasizes that the design process must involve the voices and experiences of users to achieve results that truly meet their needs. Furthermore, halfway houses as semi-public spaces have an important social role in strengthening networks between patients and families. By creating shared spaces that are open, inclusive and supportive, design can encourage positive interactions and strengthen the collective spirit in dealing with the burden of illness. Spaces such as shared kitchens, children's activity rooms, or therapy gardens are important mediums in building healthy interactions and strengthening the spirit of recovery together. Finally, this research not only highlights the importance of good design for healing spaces, but also how design itself can be part of a broader social support system. With an evidence-based, participatory, and user-oriented approach, halfway houses can become living examples of inclusive, humane, and transformative design.

RESEARCH METHOD

This research uses a qualitative method with a design thinking approach as the main framework in understanding, formulating, and solving the design problems of the shelter space. This approach was chosen because it is able to deeply explore the experiences and needs of users through an empathic and participatory process. The research process consists of five stages: empathize, define, ideate, prototype, and test, all of which are iterative. This method allows for user involvement in every stage of design decision-making, so that the end result truly reflects the real needs of the shelter residents. The data collection method is done through a triangulation technique, which is a combination of direct observation of the physical condition of the halfway house, semi-structured interviews with patients, companions, and managers of the Rumah Cinta Insani Foundation, as well as distributing questionnaires to residents of the halfway house. Observation serves to see firsthand how spatial layout, lighting, ventilation, and space circulation work in the daily lives of residents. Interviews provide in-depth information related to emotional, psychosocial needs, as well as user constraints on existing facilities. Meanwhile, questionnaires were used to obtain a quantitative overview of occupant satisfaction and needs. This combination of methods allows researchers to get richer, deeper data, and complement each other.

The data sources in this research consist of primary data and secondary data. Primary data came directly from the research subjects, namely child patients with cancer, family companions, and shelter managers, who directly use and manage the facility. Observations were made by looking at real conditions in the field such as natural lighting, cross ventilation, space distribution, and existing interior design elements. Interviews involved resource persons from various backgrounds to understand different experiences and needs. Questionnaires were prepared in the form of a Likert scale to measure the level of user satisfaction with certain aspects of the space such as comfort, safety, and psychological support. Meanwhile, secondary data was obtained

from literature studies which included scientific journals, theoretical books, healing architecture standards, similar design documents, and references related to the principles of healing architecture, biophilic design, and universal design. The types of data collected in this research include qualitative and quantitative data. Qualitative data includes narrative descriptions of users' perceptions, experiences, and expectations of the halfway house space. This includes verbal and non-verbal expressions during interviews and observations, such as stories of the experiences of pediatric patients and caregivers, as well as social interactions that occur within the space. Quantitative data was obtained through the distribution of structured questionnaires, which generated simple statistical figures such as percentages of the comfort level of the space, preferences for design, and the need for other supporting facilities. This combination of data allowed the researcher to build a comprehensive understanding of the existing conditions of the shelter and opportunities for improvement through user-driven design. The data analysis process was conducted thematically by grouping the findings based on relevant design issue categories, such as lighting, ventilation, accessibility, zoning, space flexibility, and psychological comfort.

The researcher then used SWOT analysis (Strengths, Weaknesses, Opportunities, Threats) to assess the internal and external conditions of the shelter as a whole. The results of the SWOT analysis provided a strategic foundation for design development, including how strengths (such as the manager's dedication), opportunities (community and donor support), and weaknesses (such as limited facilities) could be used to produce a more humane and empathetic space solution. In addition, data analysis was also conducted through an interpretative approach to the results of interviews and observations, where each finding was matched with relevant theories such as environmental psychology, biophilic design, and inclusive design. The researcher also compared the field findings with previous studies to test the suitability and significance of the findings. The results of the analysis were used to develop an interior design prototype of a halfway house that integrates the principles of healing architecture in concrete forms, such as layout sketches, 3D visualizations, and simulations of space use by residents. This prototype was then tested again through evaluation sessions with users to obtain feedback that would refine the design results. With this comprehensive approach, the research not only produced an applicable design solution, but also built a methodological model that can be used in other social facility design contexts. The methods used proved effective in accommodating user perspectives, objectively analyzing existing conditions, and formulating designs that are responsive and relevant to the social and emotional context of users.

RESULT AND DISCUSSION

Findings

Figure 1 Observation, Interview and Questionnaire Data
Source: Sukma, 2025

At the *Empathize* stage, an empathic approach was taken through direct observation and in-depth interviews with residents and managers of the Rumah Cinta Insani Foundation in Bandung. Observations showed that the 9 x 14 meter halfway house consists of three bedrooms, a common room, kitchen, laundry area, and toilet. However, the layout of the space does not support patient comfort: ventilation and natural lighting are minimal, space zoning is not appropriate, and the occupant capacity exceeds the ideal limit. This condition triggers mold growth in some parts of the house such as rooms and kitchens, which has a direct impact on the quality of patients' health. An interview with the manager revealed that the shelter is still under contract, accommodates children with cancer aged 3 months to 16 years, and receives referrals from several major hospitals in Bandung. In addition to meeting basic needs, the foundation also organizes educational activities. However, limited facilities make the implementation of learning and mentoring programs not running optimally. The results of the questionnaire show that most patients (68 percent) suffer from leukemia, followed by Wilms tumor (12 percent), lymphoma (8%), and other diseases (4%). Children who need long-term assistance. 75% agreed that it is very important to improve the layout and add more learning spaces and green spaces. Volunteers and medical personnel rated psychosocial programs and isolation rooms as very important. Overall, 86% of the people who responded expressed their support for the development of social and medical services aimed at improving patients' quality of life.

The *define* stage was then conducted to formulate the main problems to be addressed by the design. These problems include space zoning that is not in accordance with the special needs of pediatric cancer patients, limited ventilation and natural lighting, the absence of open learning and therapy spaces, and accessibility that is not inclusive. These problems stem from the condition of the residential building, which was not specifically designed for the function of a halfway house. As a result, the space is not only functionally sub-optimal, but also does not support the psychological and emotional recovery process. To strengthen the direction of the design solution, a SWOT

analysis was conducted which confirmed that the foundation's strength lies in its social dedication and active volunteers. However, the main weakness arises from the physical limitations of the space and reliance on donations. Collaboration opportunities with the design community, educational institutions, and digital donors are important strategies to accelerate the realization of a sustainable *healing architecture-based* design.

Table 1: SWOT Analysis
Source: Sukma, 2025

Strengths-Weakness	**Weakness-Opportunities**
Rumah Cinta Insani Foundation has strengths in the form of social commitment, volunteer support, and meeting the basic needs of patients. However, the limitations of physical facilities such as lighting, ventilation, and space zoning are the main obstacles. To optimize these strengths, space redesign needs to refer to the principles of *Healing Architecture* to be more efficient and support patient comfort.	Taking advantage of the great opportunity to collaborate with educational institutions, digital donors, and social programs can help address issues such as spaces that are still not well organized, involving the design community in the improvement of shelters is an effective strategy that can result in sustainable design innovations.
Threats - Opportunities	**Strengths - Threats**
Halfway houses face issues with circulation, ventilation, and budget limitations due to their reliance on donations. However, this opens up opportunities for the application of *Healing Architecture* and collaboration with social architects or health institutions for professional renovations that support healing.	Despite its high dedication and strong humanitarian values, the foundation still faces the threat of space conditions that are not functionally and psychologically appropriate. Strategic efforts to improve the space are needed to align with the values and goals of the foundation.

In the *ideate* stage, various design ideas were developed openly and creatively in response to the key needs that had been identified in the previous phase. This stage is an important point in the design process, because this is where the seeds of solutions begin to be formulated to answer the real problems faced by the users of the space - in this case, children with cancer and their families who live temporarily at the Rumah Cinta Insani Foundation Shelter House. The process of exploring ideas was not only based on theory or technical approaches, but also considered direct input from the users through a process of observation and interviews. The participatory design approach encouraged the design team to be more sensitive to the social and emotional context of the shelter residents, so that the resulting solutions are truly rooted in authentic needs. One of the main focuses of the idea development was the optimization of natural lighting throughout the shelter. Natural light not only provides functional benefits in terms of energy savings, but has also been shown to have a significant impact on a person's mental and emotional health. In the context of pediatric cancer patients, exposure to

sufficient natural light can help to improve mood, reduce stress, and create a more positive and open feel to the space. To support this, new openings, additional windows and transparent materials were designed that allow light to penetrate deeper into previously dark and closed spaces.

In addition to lighting, a cross ventilation system was also a crucial element developed at this stage. Many spaces in the previous shelter were considered stuffy and damp, with poor air circulation, which could worsen the residents' health conditions. Therefore, the design strategy was geared towards improving natural airflow by opening up cross-circulation directions, installing air screens, and expanding openings on the opposite side of the room. These measures not only improved the indoor air quality, but also helped prevent mold and odors, and created a healthier and more comfortable microclimate to live in. Re-organizing the space zoning was also a central idea at this stage. Spaces were reorganized based on their level of privacy and functional needs. For example, the bedroom as a private space was designed to be quieter and have visual and acoustic boundaries from other spaces, to ensure the quality of the patient's rest. Conversely, communal spaces such as living rooms, dining rooms, or children's playrooms are organized with the principles of openness and ease of access, encouraging healthy social interaction between residents. This zoning also considers the needs of the patient's companion, so that there is enough space to rest without disturbing the comfort of the child.

Not only stopping at improving existing spaces, the ideate stage also generated ideas to add new space functions that have not been available, but are needed to support overall recovery. One of the proposed spaces is the children's study room, which is designed as a special place for children to continue their learning activities while undergoing treatment. This space not only provides basic facilities such as tables, chairs, and bookcases, but is also designed with child-friendly colors and shapes, and supports focus and enthusiasm for learning. In addition, there is also the idea of developing a green open space as part of a non-medical therapeutic approach. This green space is expected to serve as an area of reflection, relaxation and light recreation, a place where children can reconnect with nature and feel emotionally calm in the midst of recovery.

Overall, the *ideate* stage of this project shows a strong integration between the user needs-based design approach and the principles of *healing architecture*. Each idea developed not only aims to beautify the space or improve functional efficiency, but also to strengthen the quality of life and emotional well-being of the residents. This holistic approach is what sets this design apart, where the design becomes a healing tool that blends into the daily lives of patients and their families.

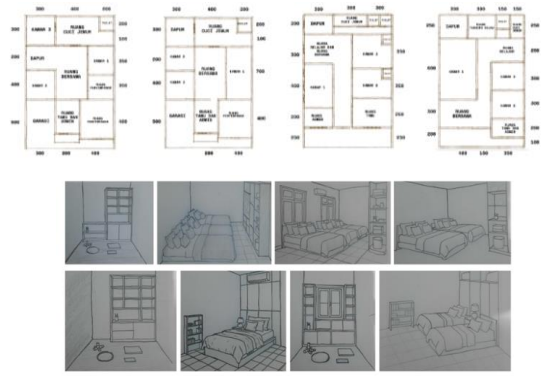

Figure 3 Initial Sketch
Source: Sukma, 2025

The initial sketch of the design was then submitted to the Rumah Cinta Insani Foundation to go through a joint evaluation process. This stage was conducted collaboratively, involving foundation managers, patient assistants, and patient family representatives to provide input based on real experiences and needs during their stay at the shelter. The discussion focused on how the design can truly answer the functional and psychological problems that have been felt by residents, as well as create a space that better supports the healing process of children with cancer. From the discussion, it was agreed that the main priority in design development should be focused on improving the bedrooms and adding study rooms. The bedroom is considered a vital space that affects the patient's comfort and quality of rest, while the study room is important because children still need intellectual stimulation and daily routines despite their recovery. Both spaces are considered to have a direct impact on children's physical and mental well-being, so design interventions are geared towards improving functionality, comfort, as well as a positive psychological atmosphere within both areas.

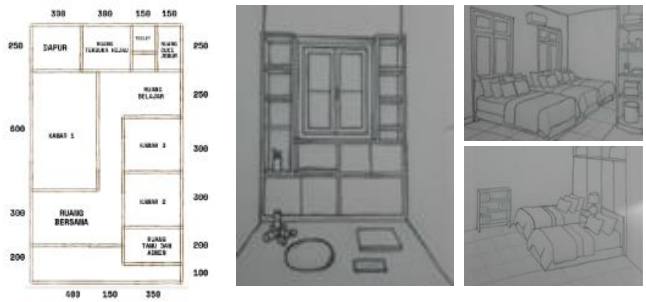

Figure 4 Selected sketch
Source: Sukma, 2025

The *prototype* and *test* stages are carried out by compiling the final design in the form of three-dimensional (3D) visualization to provide a comprehensive overview to the foundation regarding the implementation of the design. The prototype was designed by integrating elements of healing architecture in a real and contextual way. Natural lighting is optimized through the strategic placement of large openings, while cross-

ventilation is taken into account for smooth air circulation throughout the space. Circulation paths were reorganized to be easily accessible to pediatric patients and caregivers, including wheelchair users or those with limited mobility. Natural elements are also highlighted, such as the presence of indoor plants, the use of wind-patterned wall motifs and bamboo leaves, and the selection of warm and soft colors that create a calm, comfortable atmosphere and support mental and physical recovery. The foundation's response to the prototype was very positive. They appreciated the design approach that is not only oriented towards aesthetics and comfort, but also pays attention to the sustainability of the foundation's social and economic programs. During the evaluation session, important feedback was given regarding the addition of a display space to showcase and sell the work of the patients' children, such as handicraft products or clothing, which can be an alternative source of funding for the foundation. In addition, the furniture design is specifically designed to support daily activities and medical needs, including multifunctional storage shelves, hygienic and easy-to-clean kitchen sets, and modular cabinets that can function as storage areas as well as study tables. All furniture elements are tailored with universal design, ergonomic and flexible principles to maximize the function of the limited space while still supporting a friendly healing atmosphere for all residents.

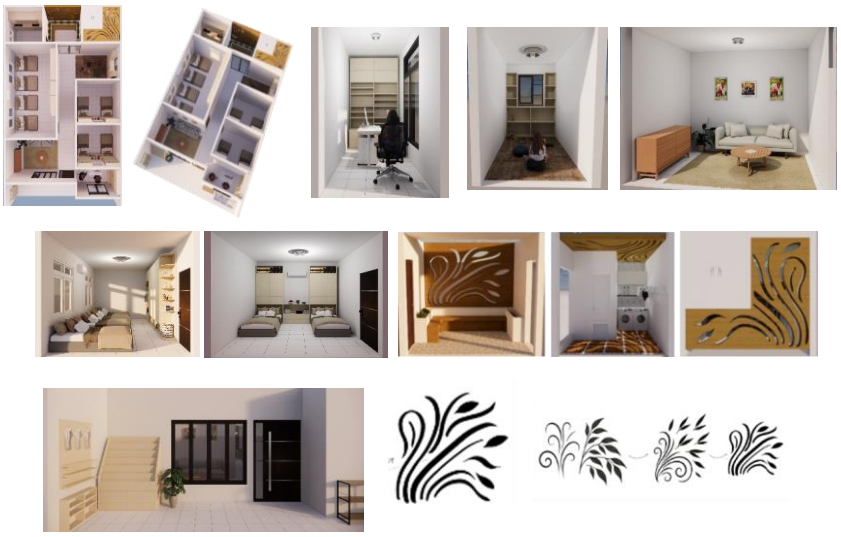

Figure 5 Final Prototype
Source: Sukma, 2025

Furniture such as storage shelves, cabinets, and kitchen sets are designed with a functional, ergonomic approach, and support a comfortable healing atmosphere. Storage shelves consist of open and closed horizontal compartments tailored to the needs of medicine storage, administrative documents, and children's learning supplies, using light-colored wood materials to give a warm and clean impression. The wardrobe is designed to be modular and multifunctional-consisting of open units for hanging

clothes, closed drawers for personal items, as well as a middle section that functions as a desk or study shelf, maximizing space efficiency in the patient's bedroom. Meanwhile, the kitchen set is organized in a minimalist manner with upper and lower cabinets, featuring a cooktop, white ceramic backsplash, and double sink, designed to be easy to clean and remain hygienic in a low-immunity patient environment. These three elements not only strengthen the function of the space, but also consider visual comfort and accessibility, in line with the principles of *healing architecture* and *universal design*.

Source: Sukma, 2025

The bookshelf in the first image is shaped like a ladder with a multilevel arrangement and high sides. The bottom is equipped with a closed cabinet, while the overall design appears minimalist with a warm light wood touch. And for the display shelf in the second picture, it is designed with two elements, a wall shelf for displaying hanging clothes, suitable for displaying the sales of clothes made by cancer patients, and a horizontal shelf with several open compartments underneath that can be used to organize small accessories such as key chains. Minimalist design with wooden material.

Analysis/Discussion

The design of a halfway house for children with cancer at Yayasan Rumah Cinta Insani was developed with a *healing architecture* approach integrated with the principles of *universal design* and *participatory design*. This approach not only focuses on the physical improvement of the building, but also on how the space can support the holistic recovery of patients both physically, emotionally and socially. A halfway house is not just a place to stay, but an important part of the healing process. In this context, space design has the power to ease anxiety, reduce stress, and improve the quality of life of pediatric patients and their accompanying families. This research departs from field findings that show that the existing conditions of the shelter have not been able to meet the basic and psychological needs of residents. Some spaces, especially bedrooms and bathrooms, do not have adequate ventilation and sufficient natural lighting. These spaces feel stuffy, damp and cramped, and do not support the daily activities of patients and families. Space zoning is also poorly organized; private and communal spaces are mixed, disrupting privacy and resting rhythms. In some cases, pediatric patients had to

share space with adults, which made them uncomfortable and deprived them of personal space to rest. These conditions have a major impact on children's psychology. Based on Kurt Lewin's (1943) theory of environmental psychology, human behavior is strongly influenced by the physical environment they are in. Closed, dark and noisy environments can trigger stress, sleep disturbances and anxiety, especially in children who are emotionally more vulnerable. Therefore, design interventions are geared towards creating an environment that supports calmness, a sense of security and emotional connectedness. The aim is to transform the halfway house into a place of complete recovery, rather than just a temporary residence. One of the main focuses of the design was to improve the quality of natural lighting. Natural light is very important in healing architecture as it can enhance mood, improve circadian rhythms and support psychological health. Therefore, window openings were enlarged, and walls in certain spaces were replaced with frosted glass material that can transmit light while maintaining privacy. Skylights were also added in certain areas such as hallways and transition rooms. These efforts aim to create a bright, warm and pleasant space - different from the dark and gloomy feel of spaces often found in conventional shelter facilities.

Cross ventilation was another important intervention. The previous halfway house had a limited ventilation system that prevented air from moving properly. This not only caused discomfort, but also posed health risks, especially for patients with low immune systems. By opening up the airflow paths from both sides of the room, as well as adding wooden grilles or tall vents, the air circulation becomes smoother and fresher. The room becomes less humid, naturally cooler and feels more alive. This ventilation system also reduces the need for artificial cooling, making it more energy efficient. The design also considers the principle of *biophilic design* which is part of *healing architecture*. *Biophilia*, as proposed by Edward O. Wilson, is the natural human tendency to seek connection with nature. By bringing natural elements into the design such as live plants, small gardens, and wood or stone-based materials the space becomes more calming. In this halfway house, the therapy garden is designed as a green open space with a circular path, where children can walk, sit, or simply enjoy the fresh air with their families. Potted plants are also placed in every corner of the common space, and natural motifs such as leaves, wind waves or water droplets are used in wall and floor ornaments. Furthermore, the *universal design* aspect is the foundation in the design so that the shelter can be used by anyone without barriers. Accessible design is not just about the availability of wheelchair ramps, but about how the entire space system is designed to be inclusive. Circulation paths are made wider so that children who use walkers or wheelchairs can move freely. Room doors are made with sliding systems that are easier to open. Bathrooms are designed with non-slip flooring, easy-to-reach handrails and shower areas without high barriers. In addition, furniture is designed with obtuse angles and ergonomic height to be safe and child-friendly.

The children's bedroom is given special attention as it is the main space for rest and recuperation. The beds are designed with a height that is suitable for children, and are equipped with storage drawers to keep the space neat and efficient. Each bed also has a curtain cover to give a sense of personal space despite being in the same room together. Warm colors such as soft yellow, sage green and pastel blue are used to create a calming atmosphere. Visual elements such as illustrative murals or decorations made by children are also added to stimulate imagination and enthusiasm. The application of *participatory design* was a key value throughout the design process. Children patients, parents, foundation managers, and volunteers were involved from the early stages of design. Through interviews, group discussions, and prototype simulations, various inputs were collected and analyzed. For example, children's suggestions for a learning space with cheerful colors and individualized desks were accommodated in the design of the education room. Parents expressed the importance of a quiet worship space, as well as a consultation room with a psychologist, which was eventually realized in the form of a semi-private space with quiet acoustics and dim lighting.

One of the tangible results of this participatory approach is that the terrace space has been transformed into a display area for children's work. Each child can display their drawings, writings or crafts on the walls of the mini gallery. Apart from being a form of expression, this space also symbolizes children's involvement in creating a healing environment. Some works are even sold during special events to raise funds for the foundation. This reinforces a sense of ownership, self-esteem, and passion for healing. Equally important, the design also reinforces the social aspect through the creation of cozy communal spaces. The communal dining room, collective kitchen and lounge are designed to encourage positive interactions between residents. Sitting in a circle, cooking together or celebrating small birthdays are all part of activities that build empathy, solidarity and a sense of community. This is important because social support has been shown to speed up the healing process, reduce fear, and prevent patients from feeling isolated. By combining the principles of *healing architecture*, *universal design*, and *participatory design*, the halfway house is not only a healthy and safe space, but also a space that touches the deepest side of humanity. Every element is designed with empathy, from the airflow, the quality of light, the shape of the furniture, to the sounds heard in the hallway. The design shows that architecture can be an active part of the healing process, not just a passive frame for medical activities. The resulting design ultimately becomes a holistic halfway house model that is not only technically feasible, but also touches deeply on psychological and social aspects. The halfway house is no longer a waiting room for healing, but part of the healing process itself.

CONCLUSION

This research shows that applying the concept of *Healing Architecture* in the interior design of a halfway house can be an effective strategy to support the healing process

of cancer patients, especially children. Through the *Design Thinking* approach, the real needs of users were successfully identified and translated into a design that pays attention to functional, emotional, and psychological aspects as a whole. The existing condition of the halfway house that did not support the comfort and health of its residents became the starting point for designing an inclusive, adaptive and empathetic space. The design developed not only pays attention to natural lighting, cross ventilation, and space zoning based on function, but also integrates natural elements through *biophilic design* to form a soothing atmosphere and accelerate recovery. *Universal design* principles ensure accessibility and comfort for all users, including patients with physical limitations. User participation throughout the design process proves that design that is responsive to real experiences and needs can create spaces that are not only aesthetically pleasing, but also emotionally and socially meaningful. Overall, the design of this halfway house represents a blend of social function, therapeutic design and sustainability. More than just a temporary residence, the halfway house transforms into a humanized and empowering recovery space. It is hoped that this research can serve as a reference model in designing other non-medical facilities, and encourage cross-disciplinary collaboration in creating spaces that truly support the holistic well-being of their users.

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