

## Nursing Home in Medan City Using a Healing Environment Approach

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**Abstract.** *Elderly is an integral part of the human life cycle. Basically, every individual will experience the stage of old age after going through childhood, adolescence and adulthood. In the elderly phase, the human body slowly experiences a decline in function, which is an early sign of the aging process. The plan for this nursing home aims to be a place for the elderly to gather with their community, preventing them from feeling lonely or neglected. The implementation of the Healing Environment concept also influences the elderly's experience of enjoying old age, involving architecture that integrates healing systems from nature, the five senses and psychological aspects.*

**Keywords:** *Nursing Home, Elderly, Healing Environment*

### 1. INTRODUCTION

Elderly individuals are a natural part of the human life cycle, experiencing a gradual decline in bodily functions as they age. According to Law Number 13 of 1998, an elderly person is defined as someone aged 60 and above. This stage of life is characterized by both physical and psychological declines, but it is not a disease. Improvements in health and socio-economic conditions have significantly increased life expectancy in Indonesia. In North Sumatra, for instance, life expectancy has risen in the past decade, from 65.59 to 67.22 years for men and from 69.61 to 71.08 years for women (BPS, 2020). As life expectancy increases, the population structure changes, necessitating special attention and facilities for the elderly to remain active and productive, especially those aged 60-75 years.

The elderly possess valuable life experience, expertise, networks, and cultural knowledge that can be assets for economic and social development (Hermawati, 2015). Law No. 13 of 1998 aims to empower the elderly to actively contribute to society. A supportive environment is essential for ensuring their active and happy lives (Republic of Indonesia, 1998). Medan has a significant elderly population of 234,827 people, making up 9.6% of its total population (BPS 2020). With a life expectancy of 73.58 years, Medan aims to become an Elderly-Friendly City by 2030, requiring collaborative efforts from the government, private sector, researchers, universities, and the community to enhance the welfare and happiness of the elderly. Nursing homes are one method to improve elderly welfare. Defined by the Indonesian Ministry of Social Affairs, nursing homes provide care and support for elderly individuals without family support, offering them safety and calm. These homes help families

balance work and caregiving and provide a space for elderly interaction. However, nursing homes in Indonesia often face negative perceptions, being seen as places for abandoned elderly. There is a lack of community engagement and visitor support, and the facilities in Medan are insufficient to meet the needs of the elderly.

To address this, comprehensive facilities are needed for all elderly residents, not just those in nursing homes. These include housing, green spaces, gathering areas, health clinics, and places for hobbies or skills development. Such facilities can transform nursing homes into specialized areas for the elderly. Nursing homes should incorporate a healing environment concept, which enhances recovery and adaptation by considering psychological effects (Stichler, 2001 in Dijkstra, 2009). Environmental factors significantly contribute to the healing process, accounting for 40% of recovery (Jones, 2003 in Kurniawati, 2011).

Designing a healing environment involves natural, psychological, and sensory elements (Murphy 2008). This approach ensures the comfort of the elderly, providing spaces that meet standards and ensure ease and safety. Implementing a healing environment can make nursing homes comfortable, adaptable, and supportive of the physical and psychological recovery of the elderly, reducing stress and pressure. This concept is vital as the elderly, with declining health, are greatly influenced by their environment.

## **2. LITERATUR REVIEW**

### **Nursing Home**

According to the Great Dictionary of Indonesian, a nursing home is a place used to care for and take care of elderly parents. Nursing homes, also called nursing homes, function as a place to live for the elderly. The decision about where to live is very important for the elderly, who usually choose to live with their children, but sometimes choose to live separately. The Time-Saver Standards for Building Types book (2nd edition) records a number of facilities needed in nursing homes, including:

- a. Administrative Facilities
- b. Staff Facilities
- c. Public Facilities
- d. Health, Treatment, and Mortuary Facilities
- e. Consumption Services
- f. Storage Area
- g. Management and Utilities Area
- h. Nursing Facilities.

## **Elderly**

The elderly are individuals who have reached the age of 60 years and above and do not have the ability to earn a living independently to meet their daily needs (Ratnawati, 2017). In addition, according to Presidential Regulation Number 88 of 2021 concerning the National Strategy for Aging, the elderly are also defined as individuals who have reached the age of 60 years and above. Aging is a process that has a wide impact on various aspects of life, including social, economic, and health aspects.

## **Healing Environment**

Healing Environment refers to the physical environment within a healthcare facility that can speed up the recovery process of patients or help them adjust to chronic or acute health conditions. This considers the psychological influence felt by the patient on the environment (Stichler, 2001 in Dijkstra, 2009).

## **3. METHOD**

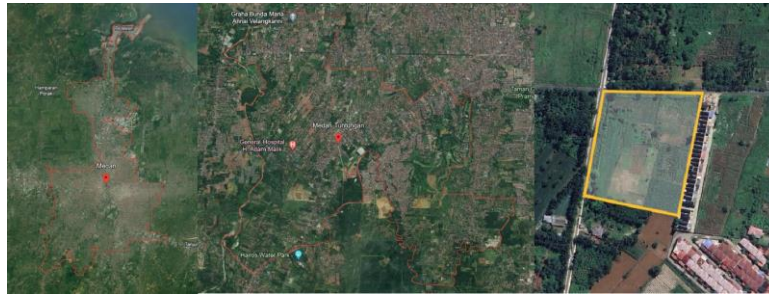
The design method is important in designing a building. Because there are steps in designing. In designing this nursing home building, there are several stages that will be carried out, including:

- a. Primary data collection: carried out by observation, namely observations made in the field.
- b. Secondary data collection: carried out by searching literature from books, journals, articles and so on that contain information about designing a nursing home.
- c. Site determination method: which contains an explanation of the considerations in site selection.
- d. Data analysis: analyze the necessary data such as Site analysis, Function analysis, Space analysis, Form analysis, Structure analysis, and Utility analysis.
- e. Synthesis of design concepts: that is, uniting all the analyses that have been obtained to formulate the design concept to be carried out.

## 4. RESULTS AND DISCUSSION

### Planning Location

The location of the land is in Simpang Selayang Village, Medan Tuntungan District, Medan City. It is a medium-density residential area (R2) in accordance with the Medan City RTRW in 2015-2035 with a population density of 97,249 people. The location of the design of this project can be seen in the picture below:



**Figure 1.** Planning Location

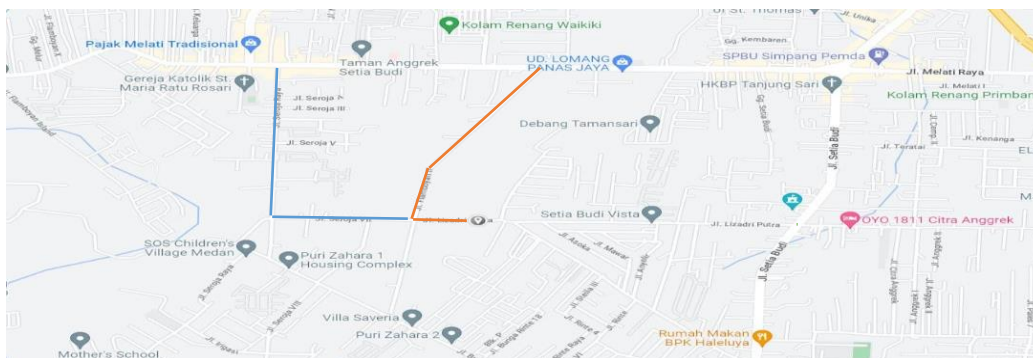
*Source : Google Maps*

#### a. Land Condition

- 1) Area : 21,800m<sup>2</sup>
- 2) Contour : Flat
- 3) Maximum KDB : 70%
- 4) Maximum KLB : 2.1
- 5) Maximum KDH : 15%
- 6) Maximum Building Height : 3 Floors / 14M

#### b. Site Achievements

The site location is on Jalan Lizadri Putra, Simpang Selayang Village, Medan Tuntungan District, Medan City, North Sumatra Province, Indonesia. It is an area that is close to the Green Open Space and Housing zones and is not directly related to major roads / protocols such as Jl. Flamboyan Raya and Jl. Setia Budi. The site has several alternative paths to the site:



**Figure 2.** Site Achievements

*Source : Google Maps*

**Theme Application of Healing Environment**

**Table 1.** Application of Healing Environment in Buildings

Aspects	Nature	Sense			
		Vision	Hearing	Smell	Pear
<b>Nature</b>	Water features Batu-batuan Soil  Grass  Wood  Sky  Plant	Lukisan alam Sculpture Natural scenery	The sound of birds chirping Waterfall Fountain  Water splash  Wind whistle	scent fragrance Plants/flowers or fruits	Interaction with water and plants
<b>Psychological</b>	Recreation  with a natural  atmosphere	The use of  color shades  that can help  the recovery  process	Music that can  help all nursing  home users feel  comfortable	Scents that can be used as aid for the recovery of the elderly	Safe use of furniture and building materials
<b>Hasil</b>	Garden design that can help the elderly recover is <b>the Healing Garden</b>	Use of shapes and colors	Use of sounds that can make the patient feel calm	Use of plant types that have a fragrant aroma	The use of furniture materials and landscape elements that are safe and comfortable

### The Concept of Mass Composition

The shape is processed with the Multi-mass technique but becomes a unit to create a comfortable space zone. The addition of outdoor space to create a diverse activity space so as to maximize social interaction between the elderly and achieve the activeness of the elderly.



**Figure 3.** The Concept of Mass Composition

*Source : Personal Analysis (2024)*

### Zoning Concept

In the public zone, there is a parking area and a lobby. While the private zone includes type A room buildings and type B rooms. Then in the semi-private zone there are management buildings, clinics and nurses, halls, and prayer rooms.

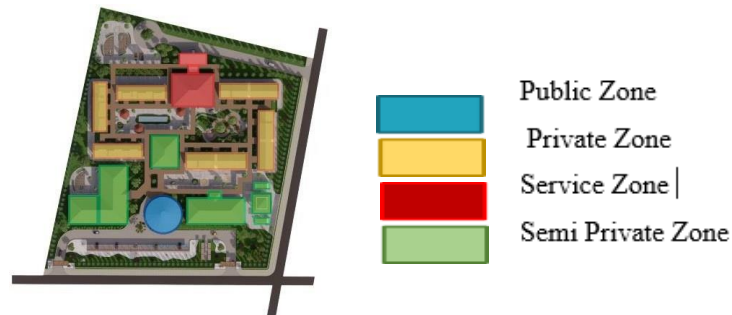


**Figure 4.** Zoning Concept

*Source : Personal Analysis (2024)*

### Building Façade Concept

The Lobby building is made with the concept of open space, so that it seems spacious and also the feeling of welcoming guests or visitors becomes warmer. The use of wood material for the floor is also to feel warm. There is also bamboo as a railing from every corner of the room to feel natural. The use of the walls itself uses cement light gray.



**Figure 5.** Façade Building Lobby

*Source : Personal Analysis (2024)*

In the management building, there is a lobby next to it, and uses light gray cement material which is given a line pattern on the wall so that it does not look monotonous, the use of wood materials is also deliberately made to feel natural.



**Figure 6.** Façade of the Building Manager

*Source : Personal Analysis (2024)*

The clinic and nurse buildings are useful for caring for the elderly or conducting regular health checks. In this building there is a nurse's room, a clinic room, a physiotherapy room, a consultation room, a hobby room, a skills room and a pantry. The façade used is also made of cement light gray with a black stripe pattern on the walls.



**Figure 7.** Façade of Clinic and Nurse Building

*Source : Personal Analysis (2024)*

The hall building is located in the middle of the site. The shape and façade are made simple, as well as the wall material which uses cement light gray and wood motifs. This building is useful for conducting a religious event, entertainment or a gathering place for families who want to visit.





**Figure 8.** Façade of the Hall Building

*Source : Personal Analysis (2024)*

In the service building, there is a dining area, kitchen, laundry room, and also a loading dock which is located at the back and is also separate from the front area. The façade of this building applies the concept of open space in the dining area so that the elderly can feel the atmosphere around them, and enjoy the breeze and the garden.



**Figure 9.** Façade of Serviced Buildings

*Source : Personal Analysis (2024)*

In the type A room building, there are 3 buildings that are the same with each building consisting of 6 rooms and located in one area facing and side-by-side. In this part there is a jogging area or also a sports area. The façade of this building uses light gray cement materials, natural stone, and also the use of wood to feel natural and warm. The use of openings is also considered so that the wind enters the room and sunlight can also enter the room. In the front and back there is also a terrace for the elderly to read a book or just relax.



**Figure 10.** Façade of Room Building Type A

*Source : Personal Analysis (2024)*



In the type B room building, there are 3 buildings that are the same with each building consisting of 6 rooms and located in one area facing and side-by-side. In this part there is a pond area for fish therapy. The façade of this building is not much different from type A rooms by using light gray cement materials, natural stone, and also the use of wood to feel natural and warm. The use of openings is also considered so that the wind enters the room and sunlight can also enter the room. In the front and back there is also a terrace for the elderly to read a book or just relax.



**Figure 11.** Façade of Room Building Type B

*Source : Personal Analysis (2024)*

In the muusholla building, the use of wood elements and warm brown colors adds happiness to the residents. An open and unified prayer room provides calm when worshipping. In addition, this space has a positive impact by utilizing natural light and ventilation, which provides a cooling effect as well as creating a pleasant atmosphere.



**Figure 12.** Façade of the Musholla Building

*Source : Personal Analysis (2024)*

### **Interior Concept**

In the Type A building, there is a TV area that utilizes warm colors to add to the happiness of the residents. The plants in this room are used to provide a positive effect as a natural cooler and create a cheerful atmosphere.



**Figure 13.** Type A Room Interior

*Source : Personal Analysis (2024)*

In the Type B building, there is a TV area that utilizes warm colors to add to the happiness of the residents. Large windows allow natural light to enter the room. The wood accents used in this space have a positive effect as a natural cooling and create a pleasant atmosphere.



**Figure 14.** Interior of Type B Room

*Source : Personal Analysis (2024)*

## 5. CONCLUSION

In conclusion, the research on "Nursing Home Design with a Healing Environment Approach" highlights the importance of attention to space organization and effective programming in designing nursing homes. This approach uses the potential of the natural environment and encourages a harmonious relationship between the interior and exterior spaces. The goal of this design approach is to create a comfortable environment that not only considers the physical aspects of the building but also the natural aspects. This is crucial to create a space that is not only safe and comfortable, but also supports the happiness and well-being of nursing home residents, allowing them to live a more meaningful and fulfilling life.

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