

Eco-Behavior Methods in Interior Design for Rehabilitation Center for Children's Survivors of Violence

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Abstract

Violence against children has become a problem that is still found in society. This condition may lead to fatalities in children. The Indonesian Government is expected to contribute, to reducing this problem significantly, not only to prevent it but also to provide appropriate facilities for child survivors of Violence. Child violence is any act committed against a child that caused the child to suffer either physically, psychologically, sexually, or neglected. The impacts of these kinds of violence will affect physical and psychological trauma in children. A rehabilitation center for child survivors of violence should provide facilities that involve program activities during the rehabilitation period. An eco-behavior method is a therapeutic process that presents a social environment to interact with children and their parents as survivors of violence. Eco-behavior has specific activities to be considered in designing an interior of a rehabilitation center. It is an interesting study case in supporting a sustainable human environment. The research was conducted through the design process of planning the interior design of a rehabilitation center for child survivors of violence. Data was collected from literature study, web observation, and interviews regarding the program activities that comprise the interior design process. The result of this research is an interior design presentation in three-dimensional perspective drawings that specifically provide facilities for children's recovery process. It is expected the Applicative the on of eco-behavior the method in rehabilitation center interior can facilitate the children to improve tr behavior as to support every process for trauma from both physically and psychologically.

Keywords

Eco-behavior, Rehabilitation Center, Children's Survivors, Social Environment

1.Introduction

Nowadays, there have been many tragic incidents involving children who are victims of violence. In 2020, cases of violence against children in Indonesia did not show a decrease, which refers to data from *Sistem Informasi Online Perlindungan Perempuan dan Anak (Simfoni) Kementerian Pemberdayaan Perempuan dan Anak*, the numbers of violence against children increased significantly from 2016. *Kementerian Pemberdayaan Perempuan dan Anak* at least recorded that there were 4,116 cases of violence against children in the period of January 1st to July 31st in 2020, which also happened during the Covid-19 pandemic (Kementrian, 2020).

Violence against children does not only happen in poor families or bad environments. This phenomenon can happen in any ethnic group, all-gender, any social class even in a harmonious family. It is fact that some acts of violence did by the closest people to the victims, for example, relatives, neighbors, and even parents who are supposed to raise and take care of their children. However, it was also found that foreigners can also commit violence against children. Generally, children who experience violence have not been able to protect themselves, both in terms of defending and fighting physically or non-physically. This causes trauma to children physically and psychologically. The category of violence against children includes child neglect, psychological violence, exploitation of children, sexual abuse, and child trafficking (Huraerah, 2020). These actions have a different psychological impact on every child. It will impact their self-confidence, pull their selves out of society, and feel inferior, anxious, and excessive fear (dosensosiologi.com, 2020).

Over time, this trauma will not go away unless the victims get complete treatment and therapy related to the incident that happened in their childhood. A study states that the rate of adult suicide attempts occurs in a person who has experienced violence in the past. In addition, children with violence are more at risk for depression as adults and act

as parents (Richard, 2020). However, no matter how long the trauma has occurred, the impact of it will cause ongoing disorders if they do not get an appropriate treatment (Irwanto, 2020).

Based on the explanation above, a rehabilitation center for child survivors of violence needs to be well designed. It is included in terms of creating space programming that should meet the needs of user facilities and activities for a rehabilitation center. It requires to be safe, comfortable, and family-friendly (Ibhas, 2018). A rehabilitation center facility is classified as a public space, which requires well-thought space programming and careful selection of material and finishing as well. Children are the majority of user categories in this facility. Although supervision and administration are carried out by adults, the design required grouping activities and facilities that focus on children's behavior. Physical and psychological aspects become a consideration in designing an interior of a Rehabilitation Center for child survivors.

Combining user needs with their facilities and implementing the eco-behavior methods into interior design is an effort made to find solutions related to the design of a rehabilitation center. The design is expected to support the improvement of children's behavior in society. It is found that nature can make psychological conditions calmer and more stable. These activities required space and facilities with a natural and fun environment or close to nature. What is the best facility for supporting the recovery process for survivors of violence against children? The room will be the focus of the design, which will apply the concept of eco-behavior. It is expected that the result of the study can answer the needs of children as rehabilitation center users.

Therefore, each facility in the interior elements is designed according to the needs of the user. Colors, dimensions, and materials are suitable for children's conditions, both physically and psychologically. A rehabilitation center for child survivors of violence needs a spacious area for social interaction. Therefore, the therapy and recovery process must be supported through space requirements and design concepts.

2. Literature Review

An eco-behavior method is a therapeutic process that presents the social environment for children and their parents to interact, socialize and relax which are expected to improve their behavior in society (Liyanto, 2017).

Circulation in space is in the form of movement or the scope of motion of a space that is interconnected with form, function, and others. The pattern of space circulation in the interior is a form of design or flow of movement from one room to another to maximize the function between spaces, adding to the aesthetic value, and maximizing the circulation of the movement used (Pynkiwani, 2014). Planning a circulation has an important role in designing a public space. It could define a story, develop mood, and create an ambiance as well. The circulation pattern in space is divided into five types, they are radial, network, linear, spiral, and grid. The circulation that is applied in the common area tends to be mixed. It combined linear and network patterns to support activities in the public zone. Through this arrangement of circulation, it is expected that children in this area could play and explore their surroundings.

Children have their specific dimensions according to their heights and activities. Ergonomic and anthropometric are the aspects that could determine space requirements for the user (Ginanti, 2020). The human dimension requires space to move and act comfortably. It also determines the flow activities and space adjacency in space programming. As each piece of furniture has its dimension, it is also necessary to calculate the circulation based on the physical size of the child when moving as a standard in determining the area of a room.

3. Methods

The research was conducted through the design process to design an interior for a rehabilitation center for children's victims of violence in Jakarta. The design process requires data to collect, analyze then continue to develop into the design concept. Collecting data based on web observation were held due to the pandemic Covid-19, and an interview with the expert is also done through the online meet method. There are several Rehabilitation centers for Children survivors of violence that have been selected as study cases. Those are BRSAMPK Handayani in DKI Jakarta, P2TPAKK Rekso Dyah Utami in Yogyakarta, and BRSAMPK Paramita in Lombok – West Nusa Tenggara. These rehabilitation centers were selected for their good reputation of services and facilities in Indonesia. Design concept produces working and presentation drawing as the final design. Data was collected through literature study, web observation, and interviews. Presentation drawing in the three-dimensional digital drawing is the result of this study which presents the final design of the rehabilitation center. Although the interior design includes all areas in the

rehabilitation center only four rooms that selected to represent the final design. Since they have specific purposes and function as rehabilitation facilities. Furthermore, the interior design of these area applies eco-behavior which are intended to expose the design that supports the recovery process for the children as the user.

4. Data Collection

4.1. Space Requirements

The need for space in a rehabilitation center for children’s survivors of violence will support the child's recovery process. The space consists of three main aspects as follows: (1). A safe house or temporary residence, (2). Alternative education services, (3). Handling service for child’s psychology (Ibhas, 2018). Space requirements were adapting the eco-behavior method which was inspired by nature to support the recovery process. Comfortable space supported with a furniture arrangement that provides humans to do activities and not get tired easily (Neufert, 1995)

The following Table 1 is defining the space needed in the rehabilitation center:

Table 1. Space programming (Ismatillah, 2021)

Space Requirement	Scope	Function	Characteristic
Temporary shelter	-Kids bedroom-staff bedroom-toilet, -dining room	Temporary shelter for children’s victims of violence who need protection	Private with limited access for those in charge of the residents
Alternative education	Alternative class for children (elementary school and kindergarten)	Provide a place where children continue to learn	Semi-private
Management office	The head of the board of directors' room, the head of the dormitory room, the back-office room, the administrative office, and the secretariat archive room.	Coordinating rehabilitation center	Private with limited access
General consultation	Medical clinic, legal consultation room, child counseling room.	Provide a place for consultation for children who are victims of violence physically, mentally, and by state law	Semi-private so children don't feel intimidated and have limited
Therapy room	Play area, library, farming therapy room, and art therapy room	Provide a place that supports the process of selecting children who are victims of violence by promoting socialization with other children	Open space to make it easier for children to socialize and explore
Public facilities	Prayer room and hall	Provide counseling about violence against children, as a means of worship	Private used for certain needs
Service	Pantry, laundry room, maintenance, storage	Coordinate the needs of a rehabilitation center for children’s victims of violence	Semi-private the room can be accessed with certain needs

4.2. Eco-behavior Method

There are various therapeutic methods that work in the recovery process for child survivors of violence. The methods are expected to be more collaborative between natural and psychological recovery. There is eco-behavior, therapeutic environment, and healing environment. Eco-behavior is a recovery process with a natural environment or close to nature and presenting a social environment to support the recovery process (Liyanto, 2017). It is selected in the design development to create a sustainable human environment that supports the recovery process of children. This method has certain characteristics which will then be developed into a design concept. It is to support the recovery process of the children who are survivors of violence to be better human beings as the next generation. This method also can be translated into their activities which require space and facilities.

5. Result and Discussion

The purpose of designing an interior for a rehabilitation center for children's survivors of violence is to facilitate the treatment activities that support the recovery process of the children. Exploring the eco-behavior method in interior design has its own challenges both in terms of space programming and material treatments that will be applied to interior elements. It is expected this approach could make better support for the recovery process. Healing with Earth is the design statement that will be developed into inspiration for interior treatment. Healing (*Pulih*) is an up and down phase that can be interpreted as moving naturally into a better condition. Bersama means together in caring for and healing the children's survivors. Earth (*Bumi*) is used to describe the eco-behavior approach. In Figure 1, it is shown the interior mood board that has transformed the design statement into colors and shape inspiration.



Figure 1. Mood-board, and color scheme development represent the Healing with Earth concept

Source: Ismatillah, et al. 2021

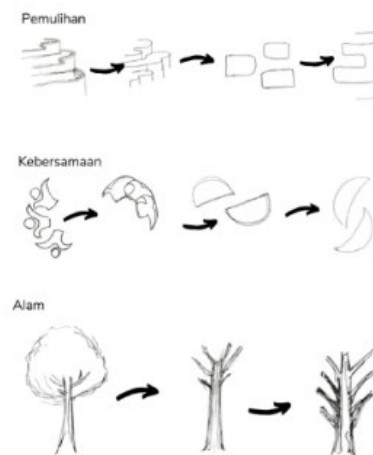


Figure 2. The sketches for ideation in interpreting the Healing with Earth concept

Source: Ismatillah, 2021

The design concept is also allowed to use environmentally friendly materials and focus on children's safety. Natural colors are selected based on the design statement. The study of forms is inspired by basic shapes in nature. The terrace inspiration symbolized forward and backward movement in the recovery process. The shape of people holding hands represents togetherness to support each other for a better future, while the tree represents a shelter that symbolized a safe place that brings calmness, freshness, and nature in Figure 1. The arrangement of geometric and organic shapes is inspired by the basic form of nature as shown above in Figure 2.

Based on Table 1, space programming consists of public, semi-public, semi-private, private, and service zones. Every zone has its own requirements and functions. The implementation of the eco-behavior method will be focused on several areas for instance playing area, planting therapy room, and art therapy room. Figure 3 shown below is the chosen zoning for the first and second floors. Each color represents a zone that is adjacent to each other based on the activities. There are five colors in the layout. Green for the public, purple for semi-public, orange for service, red for semi-private, and blue for private. Space programming has considered user activities and flow-circulation. Space programming must consider the necessities of a rehabilitation program, which will lead to their activities and facilities on each floor. The privacy during the rehabilitation program needs to be organized so that the users can focus on participating in the program.

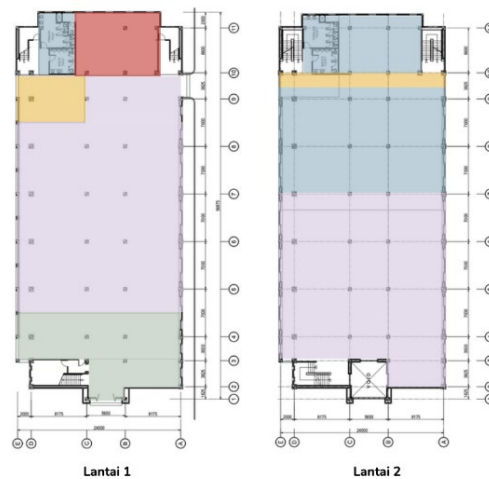


Figure 3. Zoning study for 1st and 2nd floor
Source: Ismatillah, 2021

A sustainable human-environment involves goals, strategies, and methods that are implemented to preserve and improve the quality of human life (Morelli, 2011). By designing an interior, rehabilitation center for children's survivors of violence that applies eco-behavior methods, the quality of human life will be improved.

5.1. Playing Area

Child play therapy is a possible approach to the treatment of traumatized children (Ogawa, 2018). The playing area located on the first floor has circular open-plan circulation. The area is surrounded by a therapy room to support the recovery process. With a circular and semi-closed design, it is expected children will not feel neglected, alone, and isolated.



Figure 4. The 3D drawing for playing area
Source: Ismatillah, 2021

The design of the playing area also presents the simplicity of nature in order to provide a safe, calm, and family-feeling for children who are survivors of violence. The column's treatment is to represent a shady tree that covers and feels secured and protected from unpleasant weather. The playing area is designed for children to explore and socialize where children allow access to each area to play and interact with others as shown in Figure 4 above. In this area, children are doing therapy independently and this is the objective of the eco-behavior method.

5.2. Planting Therapy Room

Planting therapy is also known as horticultural therapy (Heller, 2009). It is one of the activities provided at the rehabilitation center that introduces plants as living beings. This simple activity encourages children to interact with nature and contribute to taking care of the plants. Observing the progress of growing a plant is an exciting feeling, that gives hope for better results. This is part of the healing process in developing children's mindset to think positive and there is always hope for better days in their life. This area divides into a practice area and a seating area. Each area has its own activity that supports facilities as shown below in Figure 5. The ergonomic aspect is implemented through table and credenza heights that are compatible with children. There is a split level to gather area, where the instructor briefs the participant regarding the activity in the planting therapy room. The flow activity has an open plan circulation where children are allowed to be in the practice area and seating area.



Figure 5. The 3D drawing for the planting therapy room.
Source: Ismatillah, 2021

5.3. Art Therapy Room

It is found that positive change and behavior occurred after art therapy activities based on the chosen colors, theme, and quality of the artwork (Basyiroh, 2020). The art therapy room is on the 2nd floor and is provided as an art practice room. This therapy is carried out to increase creativity and children's motoric skills. This area divides into two different activities. The front area is for crafts activity, where participants could make 2D or 3D objects based on the brief given by the instructor. The back area is for painting activities that need specific furniture like an easel and stool. The activity is used for healing therapy as art also known as one of many techniques to relieve stress as shown in Figure 6 below.



Figure 6. The 3D drawing for the art therapy room
Source: Ismatillah, 2021

5.4. Group Counseling Room

A counseling room is essential for a rehabilitation center. This activity is the main session in the healing process. Since the user of the rehabilitation center are children with trauma, the design should bring a cheerful ambiance that optimized natural lighting from the windows, curve lines, and light colors. Group counseling is held for children to share their problems with other children while the therapist observed their behavior. Group activity requires a discussion table and chairs. Although it is not a formal discussion, a discussion table was necessary to maintain focus, and participants will take turns in expressing their feelings during this session. The group counseling room design is shown in Figure 7.



Figure 7. 3D drawing for Group Counseling Room
(Ismatillah, 2021)

6. Conclusion

The rehabilitation center for children's survivors of violence provides psychological services, therapy to change negative thoughts into positive thoughts, as well as a means of playing and learning while undergoing psychological therapy. This facility is supposed to support the children to recover and overcome their trauma. The healing process is supported by facilities that involved circulation, ergonomic – anthropometric, and space requirements as aspects to consider in interior planning. A rehabilitation center is established by applying the concept of Healing with Earth. The eco-behavior concept is applied through the nature inspiration that is brought into the interior space to support the healing process. Natural colors are applied to walls, floors, and ceilings to create a spacious area. The ambiance of each facility is to support the user to feel at ease, relaxed, and calm during the rehabilitation program. Based on the concept the main facilities in the rehabilitation center for children's survivors of violence are: (1). The playing area, (2). Planting Therapy room, (3). Art Therapy room, (4). Group Counseling room. Those activities are carried out together, aiming to restore children's social skills. These rooms have an important role in the healing process during the rehabilitation program that presents a social environment. A sustainable human environment is achieved through the healing process objective to improve the quality of human life.

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Biographies

Ii Ismatillah also known as Ii, was born in Cirebon in 1999. Since elementary school, she has enjoyed making handicrafts and listening to music. Ii earned a bachelor's degree in design at Bina Nusantara University in 2021. She has had an internship opportunity at two different interior consultants during the enrichment program. In the future, she hopes to continue her education to a master's degree.

Amarena Nediari graduated from the Faculty of Fine Arts and Design, Trisakti University majoring in Bachelor of Interior Design and Master of Design. Formerly was the Head of Interior Design Department of Bina Nusantara University, presently working as the Enrichment Program Coordinator, Interior Design Department, School of Design, Bina Nusantara University. Based on experience and comprehension in furniture retail, she believed that good design is a design that can provide solutions for everyday life. Teaching experience of more than 10 years in the Essential Design courses, namely Technical Drawing courses, Interior Design Basic Projects, and Interior Advanced Projects.

Anak Agung Ayu Wulandari is a lecturer and Head of the Interior Design Laboratory of the Interior Design Department, Bina Nusantara University. Completed her bachelor's degree in Interior Design from Pelita Harapan University, Jakarta, and went on to complete her Master of Arts (MA) in Arts and Heritage Management from London Metropolitan University, UK. Prior to joining Bina Nusantara University, she was also a lecturer at Pelita Harapan University and Multimedia Nusantara University. Has a great passion for Art and History and focuses her research on art history as well as museum and exhibition design. She teaches Basic Fundamental Design Courses as well as Art and Design History courses, which include History of Western and Eastern Art and History of Indonesian Art and Culture.