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# The Presence of a Play Space for Post Disaster Recovery

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ABSTRACT: From the year 2000 to the year 2022, Indonesia has had a number of natural disasters that were big enough to be called "national disasters." After a natural disaster occurs, it has a significant physical and social impact. The Simple Multi Attribute Rating Technique (SMART) method is applied to determine the handling priority after a disaster due to the simple calculation process. The physical and psychological impacts caused by natural disasters in Indonesia are often ignored consciously. With the aim of normalization, it is necessary to repair and restore all aspects of public or community services as part of an effort to rehabilitate post-disaster areas. It is important to recognize the contribution to post-disaster reconstruction for victims who lost daily routine activities, emotional disturbance, family loss, and a sense of security. Trauma can be categorized as acute versus chronic and early versus late. The focus of this study was examining the presence of play spaces for post-disaster recovery. The hope is that this research aims to find out the extent of the presence of play spaces in providing services for post-disaster rehabilitation and reconstruction.

**Key Words:** Playground; post-disaster; rehabilitation; reconstruction

#### 1. Introduction

Landslides, volcanic eruptions, earthquakes, floods, and tsunamis are the result of Indonesia's geographical location on the Pacific Ring of Fire in the Pacific Rim. The geographical condition of Indonesia makes it an area prone to natural disasters, which is because the Pacific Ring of Fire in the Pacific Rim is home to around 70% of active volcanoes in the world and the place where around 90% of earthquakes occur. Indonesia has 13% of the total number of volcanoes in the world, namely 129 active volcanoes and 500 volcanoes with an inactive status; in addition, 60% of the total number of volcanoes have a large eruption potential with regional forms such as horseshoes and cap an area of 40,000 km2 [1].

From 2000 to 2022, various natural disasters have occurred in Indonesia. Several national disasters have been recorded, such as the Aceh earthquake and tsunami in 2004, the

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Yogyakarta and Bantul earthquakes in 2006, the Pangandaran tsunami in 2006, the Padang and Padang Pariaman earthquakes in 2009, the 2010 eruption of Mount Merapi in Central Java, the 2018 earthquake and tsunami in Palu and Donggala, the Tsunami in the Sunda Strait due to the eruption of Mount Krakatau in 2018, the earthquake in Cianjur in 2022, and flash floods and landslides in Papua in 2019. Psychological problems are often neglected after disasters; psychological effects can occur shortly after a disaster and even over a long period of time [2–4]. As a result of natural disasters in Indonesia that cost lives, caused injuries, and caused the loss of homes, the resulting physical and psychological effects

The physical and psychological impact of post-disaster recovery has several stages. The treatment of PTSD (Post-Traumatic Stress Disorder) becomes a separate active mechanism and leads to an effective one, including coping skills and the trauma recovery process [5]. The first phase of recovery involves normal community activities that have not been disrupted by the impact of the disaster. The second phase, the cycle of emergency response, begins by stabilizing the disaster conditions or entering the stage from the end, when the community has returned to normal routine and the emergency response phase has ended. The third level is the community process to achieve the goal of returning to normal routines [6]. Trauma that results in stress can be categorized as acute vs. chronic and early vs. late in terms of age. Early childhood trauma often occurs during adolescence, and the impact of natural disasters has a special meaning that goes into the recovery process that involves planned activities before improvised activities after the disaster. The physical and social consequences of a disaster are significant, with the physical consequences being death, injury, and disease, as well as damage to agriculture, structures, infrastructure, and the natural environment, and the social consequences being psychological impact, demographic impact, economic impact, and political impact [6].

Very broad coverage, even for professionals in systematic trauma and trauma counseling. The impact of trauma on institutions, culture, and society must be recognized. Analysis of collaboration methods and integration of knowledge from various systems and levels in providing understanding and overcoming the complexity of the risk of resilience in a disaster can cause property loss and even threaten the survival of post-disaster mass trauma conditions [7, 8]. Local, regional, national, and international actions are needed for post-disaster trauma management activities [9, 10]. The post-natural disaster impact is damage to agriculture, structures, infrastructure, fatalities, injuries, illnesses, and the environment. But what needs to be noted is the social impact that occurs post-disaster. There are some studies that explain that natural disasters have a serious impact on the lives of the victims. As well as the psychological impact, demographic impact, economic impact, and political impact that arise after the disaster, there is a chain of post-disaster social impacts.

In several countries, the availability of playrooms for early childhood with ideal facilities is a must. Provision of child-friendly public facilities such as playrooms, study rooms, public transportation, and recreational areas is not yet available, and in Indonesia itself, an ideal playroom has not been a major concern [11]. Children's play activities in the playroom are necessary for their own development. Children can optimally develop it by utilizing and developing the play environment [12, 13]. Children who play with water, sand, and mud help improve their physical development [14–16]. Furthermore, parents and

educators agree that health and development can be obtained by children who play outside the home because these activities are natural ones [17, 18]. There are several public spaces that need to be observed and prepared after a disaster occurs. In the post-disaster recovery, good and consistent cooperation is required from all related parties, and support is needed for the victims' recovery. Play spaces are provided as a means of post-disaster recovery. While the research that discusses the availability of play spaces for the recovery of post-disaster victims is still limited, This is in line with what has been stated above.

#### 2. Method

This study used a literature review approach in evaluating a variety of references connected to the existence of playrooms next to post-disaster recovery. As reinforcement, literature from numerous scientific publications and journals related to the topic was discussed. The presence of a playroom in post-disaster recovery activities for early childhood victims of the disaster is then explained based on studies from various sources.

#### 3. Results and Discussion

Activities in overcoming psychological problems in the form of counseling, consultation, training, and psychosocial activities [19]. The significance of post-disaster prevention is also emphasized in order to reduce trauma and identify effective components in dealing with trauma [20]. Contribution to post-disaster reconstruction goes beyond the physical wounds suffered by victims; victims also experience loss of daily routine activities, loss of family and friends, emotional damage, and loss of a sense of security [21, 22]. It shows how the class IV students of SDN Dayeuhkolot 07 solved problems before the problem-based learning model was used. However, it should be realized that post-disaster recovery includes physical recovery and psychological recovery. The impact caused by a disaster is not only physical; people also face the social impact of deteriorating psychological conditions due to (i) loss of emotional control, (ii) loss of shelter, and (iii) memories of disaster events [23, 24].

<b>Table 1.</b> Sequentially	Planned	Integrative	Counseling f	or Children	(SPICC) model.

Phase	Process	Approach	Method
Phase 1	<ul><li>Child joins the counselor</li><li>Children tell stories with property rights</li></ul>	Participant Based Counseling	The child is left to tell stories to help the child be in a better condition
Phase 2	<ul> <li>The child continues to tell the story</li> <li>Increase children's awareness of their own problems</li> <li>Children begin to develop to communicate in managing emotions</li> </ul>	Gestalt	Maintenance of awareness that allows children to recognize related problems and release emotions
Phase 3	- Children develop according to different perspectives or views on him	Story	Reconstructing and thickening the story that children are more interested in and strengthening their prospects
Phase 4	<ul><li>Children are associated with self-destructive beliefs</li><li>Children are looking for options</li></ul>	Cognitive Behavior	The process from challenging the mind to making notes
Phase 5	- Children train feelings and evaluate new attitudes	Behavior	Developing new attitudes and resulting in reinforcement of adaptive attitudes

People who have been through trauma usually look physically healthy, but when their homes were damaged or destroyed by natural disasters, the trauma was clear. One way to overcome post-disaster traumatic problems is through activities that meet the need for emotional stability and warm communication between families and children who are victims of natural disasters [25, 26]. Sequentially Planned Integrative Counseling for Children (SPICC), a model that has received research support since 1995 (Table 1), has become one of the integrative models used in the post-disaster recovery process [27, 28].

### 3.1. Rehabilitation and post-disaster reconstruction.

Figure 1 depicts the efforts that can be made to achieve effective and efficient implementation in the rehabilitation and reconstruction process in order to meet post-disaster needs: (i) disaster assessment, (ii) disaster impact assessment, and (iii) disaster needs assessment [19]. Rehabilitation and Reconstruction Action Plan with a simple calculation process to determine the priority of post-disaster response areas by applying the Simple Multi Attribute Rating Technique (SMART) method [29, 30]. In line with the previous opinion, Regulation of the Head of the National Disaster Management Agency (BNPB) No. 15 of 2011, about post-disaster needs assessment. The analysis needs to be done as a series of activities to determine the right actions in the implementation of rehabilitation and reconstruction. Regulation of the Head of the National Disaster Management Agency No. 11 Reconstruction 2008 means rebuilding all facilities and infrastructure, in institutions in post-natural disaster areas [31].

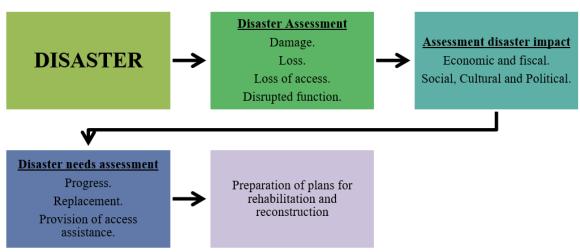


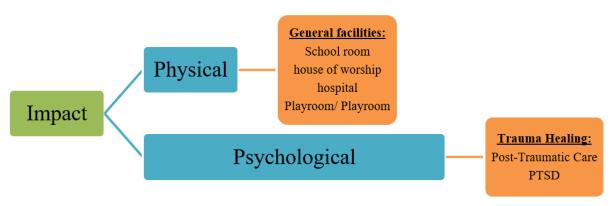
Figure 1. Post-disaster needs assessment process.

A good post-disaster reconstruction indicator should result in recovery for the physical, mental, social, and economic conditions of the community [19]. According to [19], rehabilitation activities have the meaning of improvement and recovery in all aspects of public services to an adequate level in post-disaster regions. Regulation of the Head of the National Disaster Management Agency (BNPB) Number 11 of 2008 regarding Post-Disaster Rehabilitation and Reconstruction Guidelines, Rehabilitation, and Trauma Recovery is as follows [32]: The improvement and restoration of all aspects of public or community services at an adequate level in the post-disaster region with the main goal of normalizing or ensuring the smooth operation of all aspects of government and community life in the post-disaster

region is referred to as rehabilitation. Rehabilitation is carried out through activities such as (a) environmental improvement in disaster areas; (b) improvement of infrastructure and public facilities; (c) providing community home improvement assistance; (d) social psychological rehabilitation; (e) health services; (f) reconciliation and conflict resolution; (g) socio-economic cultural recovery; (h) restoration of peace and order; (i) restoration of government functions; and (j) restoration of public service functions. Trauma recovery support is structured support with various psychological therapy methods that are suitable for individuals who have experienced psychological trauma in order to function normally again. Social psychological rehabilitation activities are carried out through: 1) individual and group counseling; 2) psychosocial activities; 3) training; and 4) psychoeducation.

## 3.2. Playroom.

A playroom that is present for children is a need that arises naturally in every individual when carrying out play activities. Every human being has an instinct to get pleasure, satisfaction, pleasure, joy, and happiness in life. Activities in play are situations or conditions in which a person seeks pleasure or satisfaction through play [33]. While carrying out the game, it can be a means of conveying information by using symbols or tools for communication [34, 35]. To reduce the risk of loss and impact, a more substantial handling is required for a clear and directed road map in a quick emergency response effort. The research discussed related to the presence of play spaces after natural disasters has not been the focus of attention. While the matter for discussion regarding the importance of play space available for early childhood children affected by natural disasters needs to be considered, Whereas post-disaster recovery facilities should have appropriate and appropriate play space. Natural disasters cause impacts, as shown in Figure 2.



**Figure 2.** Impacts arising from natural disasters.

#### 4. Conclusion

Post-disaster recovery requires special treatment for victims of disasters that have occurred. Natural disasters that occur suddenly are like a nightmare for the victims, so the community needs to ensure that they can recover from the trauma and suffering caused by the disaster they experienced. Meanwhile, the availability and existence of playrooms as an important step in efforts to recover victims of natural disasters need to be addressed and ensured. But in

line with that, the existence of a playroom has an important role in post-disaster recovery for victims, especially in early childhood.

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