



Group Coloring Therapy as Trauma Healing for Child Community Affected by Mount Semeru Eruption: A Case Study

Ira Rahmawati^{1*}, Lantini Sulistyorini¹,
Eka Afdi Septiyono¹, Peni Perdana Juliningrum¹,
Nuning Dwi Merina¹, Ayunda Puteri Rizanti²

¹ Department of Maternity & Pediatric Nursing, Faculty of Nursing, Universitas Jember, Indonesia

² Undergraduate Nursing Program, Faculty of Nursing, Universitas Jember, Indonesia;

Correspondence

Ira Rahmawati, Department of Maternity & Pediatric Nursing, Faculty of Nursing, Universitas Jember. Kalimantan street 37 Jember, Indonesia 68121.
E-mail: ira.rahmawati@unej.ac.id

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ABSTRACT

Children are one of the populations most affected by the eruption of Mount Semeru. Post-disaster trauma can have a higher risk of producing post-traumatic stress disorder compared to other traumatic events. Group coloring play therapy can be an intervention that can reduce traumatic feelings by helping children express traumatic feelings, feel relaxed, and restore children's ability to interact with children around them. This research uses a case study method with the target of children who experience anxiety due to traumatic experiences of the eruption of Mount Semeru, The ages of the children in this study were categorized into two groups, namely children aged 1-5 years (45.9%) and children aged 6-11 years (54.1%), Evaluation in the intervention program is divided into 3 parts (the structure, process evaluation, and results during activities where children affected by the eruption of Mount Semeru are happy with the activities carried out and are able to interact with group mates. Group play therapy is able to have a positive impact on children affected by the Semeru eruption. after the intervention. children are able to express their traumatic feelings, are able to interact between team members, and show a happy and enthusiastic attitude during therapy.

KEYWORDS

Coloring therapy, trauma healing, mountain eruption, disaster

1. BACKGROUND

The eruption of mount Semeru became one of the natural disasters that hit Indonesia in mid-January 2021. This natural disaster had an impact on all ages, economic and social conditions in the disaster area (Vloet et al., 2017). Children who are in the age range who are very at risk of being able to deal with events and events from volcanic

eruptions are no exception. The existence of a disaster event becomes a pressure that is faced by children when a volcanic eruption occurs. The growth period in children and adolescents is often disrupted due to an adverse event (Kilmer, Gil-rivas, & Hardy, 2014; Zagarino et al., 2021).

Children who are generally growing and developing, are considered victims who

have suffered many losses as a result of natural disasters such as volcanic eruptions. Trauma in childhood is a psychosocial and medical problem that has serious consequences for the victims and for the people around them (De Bellis & B Zisk, 2015). basically trauma is not only measured through psychological development, but also seen from the process of growth and development. post-disaster trauma can be at risk of producing post-traumatic stress disorder by 3.8% compared to other traumatic events (Kusumandari, Rafika Bayu, Suropto, Zulfikasari, 2019).

The treatment needed to reduce these psychological disorders is to eliminate trauma for victims by entertaining them, teaching them to control their emotions, providing training and coaching, so they don't get bored (Siregar & Husmiati, 2016: 62). Play therapy is a therapy that can be applied especially to children affected by disasters. In a study stated that play therapy is a therapy that is able to handle post-traumatic disaster children to entertain and overcome problems suffered through play (Dzulfaqori, 2017). One of the play therapies that can be applied is play coloring therapy.

Coloring therapy is a relaxation-based game method (Kemdikbud, 2018; Zagarino et al., 2021). The results of other studies

state that coloring play therapy is effective in reducing hospitalization stress for preschool-age children (Pramardika et al., 2020). According to Sarinengsih et al.(2018), coloring is considered capable of having a relaxing effect on children and being a distraction tool to a foreign environment and being able to forget for a moment about bad experiences. This is also supported by Pravitasari & Warsito (2012), that coloring therapy has a positive impact by providing a relaxing effect on respondents by coloring the images with colors that are suitable for the images provided.

Considering that playing is something that is very much needed in the development of children, trauma healing efforts will be made and improve the well-being of growth and development in children affected by the eruption of Mount Smeru, a team from the University of Jember will provide assistance and coloring therapy for children in the Mount Semery eruption area, Lumajang, East Java.

2. CASE REPORT

On Saturday, January 16 2021, Mount Semeru erupted. This incident caused Mount Semeru to release Hot Clouds (APG) as far as 4.5 Kilometers. After the hot cloud avalanches on December 1 2020, Mount

Semeru still showed high incandescent lava avalanches with a sliding distance of between 500-1000 meters towards Besuk Kobokan and APG occurred once. Seismic activity is still fluctuating, where this incident is dominated by surface earthquakes. The occurrence of earthquake eruptions, gusts, avalanches, and harmonic tremors is still high, this indicates that magma movement to the surface is still possible. Flood events are starting to increase, which indicates an increase in lahar events as rainfall increases. Three districts were affected in this disaster, including Pasrujambe District, Candipuro District and parts of Senduro District in Lumajang Regency.

The impact caused by the eruption in mid-January did not only impact the social sector, but also the economy and the health sector, especially children. Children, who are generally growing and developing, are considered victims who have suffered many losses as a result of natural disasters such as volcanic eruptions. Trauma in childhood is a psychosocial problem that creates a state of trauma and symptoms of anxiety in children such as anxiety, tension, unwillingness to interact, and crying easily (Zagarino et al., 2021). The eruption of Mount Semeru caused children's activities to be limited and they had to adapt to the conditions of evacuation

which caused discomfort to children and showed signs of anxiety. Some signs of anxiety are shown by the lack of interaction between one child and another, crying, restlessness, and several other children experiencing symptoms of difficulty sleeping. According to the presentation of local residents, there has been no specific identification carried out for children who experience post-disaster anxiety or trauma, the existing shelters also do not provide special facilities aimed at dealing with post-disaster trauma in children and the ignorance of local residents in dealing with problems. For this reason, it is necessary to carry out an intervention that focuses on handling anxiety after the eruption of Mount Semeru.

Based on the explanation above, the problems encountered can be described as follows: 1) there is no early detection and management of children affected by disasters; 2) limitations in carrying out growth and development activities, 3) not all figures, parents, or those around them understand how to deal with anxiety in children affected by disasters. Therefore, it is necessary to identify and implement play therapy for children who experience this trauma.

3. INTERVENTION

The population in this study was 30 children aged 4-11 years who were displaced due to the Mount Semeru eruption at SMPN 2 Pasirian, Lumajang Regency, in 2021. The total sample in this study was 37 children aged 2-9 years who were obtained using a purposive sampling technique, according to the inclusion and exclusion criteria that the researcher has determined. The inclusion criteria used in this study are 1) Children aged 4-11 years, 2) Children living in refugee locations at SMPN 2 Pasirian, Lumajang Regency. In contrast, the exclusion criteria in this study were children with a history of emotional and behavioral disorders before the disaster. The coloring intervention was carried out for about 30 minutes by dividing the children into 5-6 groups. During the coloring activity, children are allowed to choose colors and express their feelings through the coloring process

4. RESULTS

Identification carried out by play therapy

The ages of the children in this study were categorized into two groups, namely children aged 1-5 years (45.9%) and children aged 6-11 years (54.1%). This is based on age groupings based on the Substance Abuse and Mental Health Services Administration

(SAMHSA). Post-disaster trauma can cause mental and emotional decline in children. In addition, post-disaster impacts can cause children to experience physiological, emotional, and behavioral changes, such as losing skills possessed before the disaster or returning to behaviors they have experienced.

Based on subjective data from local residents, children do not have special facilities in refugee camps aimed at treating trauma, children cry more easily, are restless, and some others have symptoms of difficulty sleeping. From an objective perspective, children find it difficult to interact with people around them, they look tense and they look gloomy. Based on these data, anxiety problems due to post-disaster eruption trauma in children are the focus of the problem in this study.

The anxiety experienced by children in this study occurred due to psychological changes due to a pressure or crisis in children. Children easily experience crises caused by stress due to changes in their health status and their environment. Children have limitations in coping mechanisms to deal with problems and stressful events (Suparno & Saprianto, 2019). Other studies show a significant relationship between a child's age and peer

problems. This research is in line with Bedriye's research (2014) which found that school-age children who experienced an earthquake tended to exhibit avoidant behavior, became more aggressive, were reluctant to go to school, and did not want to play with their friends. Other research shows that post-disaster children will experience setbacks in school academics; This is because children are less interested in school activities. Purnamasari (2016) explains that age is an indicator of child development that affects their ability to understand that a disaster is a disaster or an event that can cause trauma. Preschool-age and school-age children are still unable to understand the losses caused by the disaster caused because their cognitive abilities are still in the developmental stage and cannot understand the events that occurred.

In this study, participants were categorized into two categories. Based on the results data, the participants in this study were children aged 1-5 years and 6-11 years. The reaction of emotional changes shown by children affected by the eruption of Mount Semeru has a different reaction to emotional and mental changes. In line with previous research, reactions to physiological and emotional changes in children's behavior vary based on age and developmental stage

(SAMHSA, 2018). Children aged 1-5 years have reactions to changes such as wetting the bed, anxiety, excessive fear of the dark, and strangers. In comparison, the general physiological changes are loss of appetite and indigestion. Conversely, children aged 6-11 years experience physiological, emotional and behavioral changes such as crying, attachment to parents or caregivers, headaches, visual disturbances, hearing and sleep disturbances, and nightmares. In addition, things that are more tiring can occur if not addressed immediately, namely the emergence of phobic behavior, social isolation, and excessive anger.

Based on Lawver & Kool (2017) the condition of children with these criteria already meets the "good" criteria or is recommended for play therapy. If this is not done, the problems that occur will become more chronic and cause more severe trauma.

Implementation of play therapy

Based on the problems faced by the client, a nursing action plan that will be given to address anxiety nursing problems, action will be taken to achieve the goal of reducing the level of anxiety in the client and speeding up the recovery process. An action plan to support children's development will

be given interventions in the form of observation, therapy, and education. Observations were made to determine changes in manifestations in patients and the presence of new problems Observations made on anxiety reduction according to the Indonesian Nursing Intervention Standards were identification when anxiety levels changed (eg conditions, time, stressors), monitoring signs of anxiety (verbal and non-verbal), and identifying children's feelings expressed during play, monitoring the use of play equipment, children's responses to therapy, and children's anxiety levels during therapy (PPNI, 2018a, PPNI, 2018b).

Educational interventions are given to provide an overview of play procedures to children and/or parents in language that is easy to understand. Researchers provide good and clear education so that they do not add to the stressors of parents and patients which cause excessive anxiety during hospitalization (Lestari & Karyus, 2020). Therapeutic interventions are carried out as a form of independent nursing action. Nursing actions taken are to carry out play sessions that can stimulate child development, which can encourage child expression, play sessions are also carried out regularly to build trust and reduce fear of the

traumatic experiences that have been passed (SIKI (2018).

Play therapy response or evaluation

After doing coloring play therapy in groups. Evaluation in the intervention program is divided into 3 parts. First, evaluate the structure with the availability of play media such as coloring sheets and crayons, children are ready to be affected by the eruption of Mount Semeru in trauma healing assistance activities, and the organization is carried out by dividing volunteer teams into several groups of children according to the age group when organizing activities. Second, process evaluation, namely the activity started according to the planned time and the children were enthusiastic about playing activities as trauma healing assistance with good responses in the form of being cooperative during activities, following instructions properly, and intervening according to their respective creativity. Third, evaluation of the results during activities where children affected by the eruption of Mount Semeru are happy with the activities carried out and are able to interact with group mates.

5. DISCUSSION

The traumatic experience of the Mount Semeru eruption disaster experienced by early childhood can have an emotional and psychological impact on children. The impacts that arise as a result of disasters are divided into two, namely psychological and non-psychological impacts. The psychological impact itself is influenced by changes in interactions or disturbances in physical, psychological, and social situations. Most disaster victims will experience disturbed sleep patterns, anxiety, loss of flexibility in activities, disrupted social relationships so that victims experience stress. If early detection and treatment are not carried out, there is a risk of causing more serious medical and psychological complications and can disrupt the social life and daily life of sufferers (Zagarino et al., 2021).

Early childhood victims of disasters have a tendency to experience trauma. Of course this needs to be a concern in avoiding adverse effects on a child's developmental tasks. In this case, it is necessary to provide special interventions in the form of play therapy and coloring for young children affected by the eruption of Mount Semeru. In terms of providing emotional and psychological assistance through the

implementation of trauma healing to children affected by the eruption of Mount Semeru, it is hoped that it can be the initial management in preventing trauma to children and increasing readiness for their growth and development.

Play therapy is a therapy that can restore prolonged trauma after natural disasters (Darmiany et al. 2019; Akmal et al., 2021). So that play therapy is very important to do for child victims of natural disasters in overcoming their trauma. Play therapy is also an indispensable therapy in the process of child development with the aim of expressing oneself, having empathy for other children, and being able to solve problems adaptively (Akmal et al., 2021). Based on research conducted by Pramardika et al, (2020) states that the colors that appear in play therapy in children's pictures have a lot of emotion in them. Based on this, it can be interpreted that play therapy is very important to prevent and overcome trauma in children. One of the play therapies that can be applied is coloring therapy.

Play therapy coloring pictures makes children unconsciously release their amygdala contents, namely expressing feelings of sadness, stress, anxiety, stress, creating images that make them feel happy again (Gerungan & Walelang, 2020).

Research by Latip et al. (2022), explains that one of the play therapies that is appropriate for the age of preschoolers is play therapy with coloring pictures. Aryani & Zaly's research (2021), explains that coloring play therapy can make children release feelings of anger, sadness, or anxiety which were previously difficult for children to express these feelings. The child may have difficulty expressing feelings because of the intensity of the trauma experienced, or because of a lack of a support system that would allow the child to express his feelings. Research (Arifin & Udiyani, 2019). Also explained that coloring picture therapy is a game that is in accordance with hospital principles where psychologically this game can help children express feelings of anxiety, fear, sadness, depression and emotions (Arifin & Udiyani, 2019).

Play therapy is a therapy that can overcome or reduce psychological problems in child victims of disasters (Dzulfaqori, 2017; Pramardika et al., 2020a). In research conducted by Lailiyati (2018) stated that play therapy can reduce stress in preschool-aged children ($p=0.0295$). According to Noverita, 2017; Pramardika et al., 2020a) play therapy is effective for eliminating anxiety, internal barriers, and experiencing emotional problems. Play therapy is a form of

systematic therapy according to theory that can be used to help children prevent and overcome psychological problems with various kinds of games (Association for Play Therapy, 1997; Afiati et al., 2019). The results of Afiati et al's research, (2019) show that play therapy for students who are victims of the Sunda Strait tsunami can reduce the anxiety, fear and psychological burden they experience. Play therapy is a standardized therapy so it can be used to treat psychological problems (Afiati et al., 2019)

Research Limitation

As for some limitations in this study, the researchers could not in-depth assess each individual who carried out coloring therapy and required further, more specific measurements to see the effectiveness of coloring therapy in each individual child, for example by using anxiety, stress or similar assessment instruments. The intervention in this study was also carried out in groups, this would be better if private or individual sessions were carried out so that more optimal assistance could be provided for each child. Kool and Lawver (2017) explain that play therapy is a unique intervention for each child, due to the interpersonal relationship between the child and the therapist.

Approval and support promote psychosocial self-expression and child development in a relatively safe play environment. Through a series of meaningful observations and more complex motivations, the therapist shows interest in the child's problems and outlines plans for future therapy sessions. A unique key component of the therapeutic relationship is the remedial relationship, that is, the relationship provided to the child through participation in play.

6. CONCLUSION

Based on the results of the intervention that was carried out by the author in the previous chapter, it can be concluded that the application of group coloring therapy to children who were victims of the Semeru Eruption disaster had a subjectively positive impact where the children said they were entertained and happy with the activities carried out, and objectively the children were able express their feelings to the facilitator and are able to express their feelings through the coloring process.

AUTHOR CONTRIBUTIONS

Substantial contributions to conception, data collection, data analysis,

and writing: Ira Rahmawati, Lantin Sulistyorini, Ayunda Puteri Rizanti. Data analysis, and writing: Eka Afdi Septiyono, Peni Perdani Juliningrum. Data collection: Nuning Dwi Merina, Ayunda Puteri Rizanti.. Finishing manuscript: Ayunda Puteri Rizanti.

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CONFLICT OF INTEREST

The authors declare no conflict of interest.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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