

ORIGINAL ARTICLE

The Influence of Drawing Therapy on Healing Psychological Trauma in Post Earthquake in Kajai West Pasaman West Sumatera Indonesia

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ABSTRACT

Introduction: Earthquake incidents in Indonesia for the year 2023 were scaled up to 10.789. This can have a higher magnitude of psychological impact in growth and development of especially children. Drawing therapy is given to cultivate children's coping mechanism towards psychological trauma arises by earthquake. The purpose of this study is to determine the effect of drawing therapy in healing of psychological trauma among post earthquake children.

Materials and methods: This quasi-experimental study was conducted among 101 children aged from 7 to 12 years who lived in Kajai Pasaman Barat and affected by the earthquake on February 25, 2022 at 08:39 a.m. **Results:** Before being given drawing therapy the score of trauma level was a minimum of 11 and a maximum of 54 and after being given drawing therapy the score of trauma level was a minimum of 7 and a maximum of 48. Difference between the psychological trauma of respondents before and after being given drawing therapy with an average value of mean 26.85 with a standard deviation of 11.366 to an average value of mean 22.11 with a standard deviation of 10.385.

Conclusion: Drawing therapy had positively reduced the psychological trauma among children post earthquake (p-value < 0.05).

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INTRODUCTION

Indonesia is an archipelagic country located at the intersection of the Asian Continental Plate, Australian Continental Plate, Indian Ocean Plate and Pacific Ocean Plate (1). According to the National Disaster Management Bureau (BNPB), this leaves Indonesia vulnerable to disasters such as forest fires, earthquakes, tsunamis, floods and landslides (2). Data shows that Indonesia is a country more prone to earthquakes than other countries. Earthquakes resulting from the interaction of tectonic plates will cause tidal waves if they occur in the ocean (3).

The earthquake that occurred in West Sumatera, Indonesia experiences thousands of earthquakes every year. The number of earthquakes recorded by the Meteorology, Climatology and Geophysics Agency (BMKG) reached 10,789 times throughout 2023. The

earthquake phenomenon that occurred on February 25, 2022 at 08:39 west Indonesia time in Nagari Kajai, Talamau District, West Pasaman, West Sumatera, Indonesia measuring 6.1 Mw rocked West Pasaman Regency, West Sumatera, Indonesia has worstly affected Kajai (3).

The occurrence of this earthquake had a considerable impact on the various aspects of human life, such as social, economic, health and other aspects. One of them has impact on health, namely mental health. This mental health will cause long term effects if not helped quickly. Psychological impact is often overlooked especially in children trauma (4). If not addressed, it can have an impact on growth and development. Psychological changes for earthquake experienced are usually marked by the onset of psychotic symptom and Post Trauma Symptom Disease (PTSD). Children are a group that has a higher risk factor for experiencing symptoms. The effects of traumatic symptoms in children such as traumatic. Symptoms of post-traumatic stress in children can last up to 30 years. symptoms caused in children such as fear, anxiety depression, difficulty thinking and impaired concentration (5). Psychological trauma is an individual

experienced or a condition in which the individual feels emotionally, cognitively, and physically overwhelmed so that the ability to cope with the condition is impaired (6).

Based on research that the definition of mental disorders in school-age children (7-12 years old) indicates that most of them are in the borderline category on the difficult subscale, that is, 27 (54.0%), 18 (36.0%) are normal, and 18 (36.0%) are normal. shows that it is normal. A small number of individuals have abnormal 5 individuals (10.0%). At the same time, most of the power subscales are in the normal category, that is, 27 people (54.0%), 19 people (38.0%) are borderline, and a small number of these people are in different categories, 4 people (8.0%). Children in the borderline group express that they need support to support the transition to normal (7). Health interventions such as art therapy should be provided to children on the border and across the spectrum. Art therapy has proven effective as a psychosocial intervention for post-disaster children in supporting psychological recovery from trauma. Activities carried out in art therapy sessions include: drawing, painting, making works of art from toy wax or clay, collage (paste pieces of paper) and coloring objects (8). If the victim's condition gets worse, then they may need more serious and prolonged psychological treatment. One way to overcome is through trauma healing. Trauma healing is a process of recovering the victim's emotions from fears in the past affected by ten feel reminiscing about the event, remember it with nightmares, and avoid being associated with the traumatic event. To overcome this, there is psychological trauma therapy that can be followed is art therapy (drawing) (9).

Drawing is art therapy. Drawing therapy is a therapy that uses art as a form of communication or self-disclosure use of images can process self-exploration and through self-exploration self-expression is formed (10). Drawing provides an opportunity for the subject to communicate feelings, thoughts, problems and hopes in a safe manner. Art therapy has proven to be effective as a psychosocial intervention for post-disaster children in supporting. Drawing is not just fun for kids. Children can see many benefits of writing. During its development, painting was also used as art therapy for the brain and to stimulate the brain (11).

Pre Research Study of the interview on May 25, 2022 (3 months after the earthquake) the children who experienced the earthquake changed their attitudes as children were afraid that the earthquake would repeat again, had difficulty forgetting the earthquake, trembled when they remembered the earthquake, were afraid to enter the house due to the earthquake, experienced sleep

disturbances such as difficulty sleeping, nightmares, difficulty concentrating, anxiety when bad weather such as strong winds and rain immediately run outside, fear of hearing roars and palpitations, panic, crying easily, cold sweats, irritability, sometimes likes to be alone and quiet a lot. Therefore, the purpose of this review is to determine the effectiveness of art therapy in children after the Kajai Pasaman Barat earthquake in West Sumatera.

MATERIALS AND METHODS

This is a quantitative research which is based on quasi experimental design, with one group pretest-posttest design (12). This one-group pre-test and post-test technique is used to determine the trauma level of the post-earthquake children before and after the drawing intervention. The population in this study include children aged 7 to 12 years in Kajai West Pasaman, West Sumatera, with a sample of 101 respondents children affected by earthquake at 6.1 Mw on February 25, 2022 at 08:39 a.m. at Kajai. The study period is 5 weeks, from 26th October until 30th November 2023. The drawing therapy was carried out in 4 sessions over 4 weeks including the first week of pre-test. In the first session, children asked to draw a picture that they want. Children are given the opportunity to describe or describe themselves and their lives, their favorite things they like and their feelings about their lives. This assignment is designed to understand each child's interests and realities and assess the child's level of trauma. After the picture is finished, the child stands up and tells the meaning of the picture. This session aims at self-reflection. In the second session, children were asked to describe things that will never be forgotten to get an expression of trauma and sadness. This session draws into what happened that day and how you felt. In the third session children were asked to draw pictures about places that are meant safe to them, as well as memories of people who have died and were loved by children. It can be anything that makes the children feel safe and draw what makes them feel comfortable and not afraid. The forth session aims to encourage children to reflect on their hopes for the future, dreams and hopes for their lives after the earthquake. This session encourages children to think positively and focus on restoring hope in their lives (13). Each session is held for one hour (60 minutes) once a week. Data obtained from this study used in analysis of dependent t-test or paired sample t-test (14).

Data Collection Instruments

Data for this study were collected using the Child PTSD Symptom Scale for DSM-V (CPSS-V SR), which is adapted from (4). The questionnaire consists of twenty

questions regarding the aftermath of the earthquake disaster.

Ethical Clearance

This study is approved by research ethics committee Universitas Negeri Padang (UNP) Indonesia with ethical clearance no. 55.01/KEPK-UNP/IV/2023.

RESULTS

Total number of respondents in the research is 101 respondents. The demographic characteristic is shown at (Table I). The statistical analysis method used in this study include univariate analysis, and bivariate analysis using t-test analysis (dependent sample t-test). The univariate analysis shown average psychological trauma level of respondents before giving drawing therapy to children post earthquake in Kajai West Pasaman, West Sumatera Indonesia can be seen (Table I) show mean 26.85 with a standard deviation of 11.366 for psychological trauma with a maximum score of trauma level is 54 and a minimum score of trauma level is 11 in post earthquake children in Kajai West Pasaman, West Sumatera Indonesia 2023. The average psychological trauma level for respondents after giving drawing therapy was mean 22.11 with a standard deviation of 10.385 for psychological trauma with a maximum score of trauma level is 48 and a minimum score of trauma level is 7 in post earthquake children in Kajai West Pasaman, West Sumatera Indonesia 2023.

Table I: Demographic expert (n=101)

Variable	n	%
Gender		
Male	47	46.5
Female	54	53.5
Age		
7 Years old	14	13.9
8 Years old	16	15.8
9 Years old	15	14.9
10 Years old	16	15.8
11 Years old	22	21.8
12 Years old	18	17.8

The bivariate analysis is the average psychological trauma of respondents before and after giving drawing therapy to children post earthquake can be seen (Table II) show that there is a difference between the psychological trauma of respondents before and after being given drawing therapy with an average value of mean 26.85 with a standard deviation of 11.366 to an average value of mean 22.11 with a standard deviation of 10.385. The statistical test results (dependent sample t-test) obtained a p-value of 0.000 ($p < 0.05$), which means that there is an effect of giving drawing therapy on reducing psychological trauma in children post earthquake in Kajai West Pasaman, West Sumatera Indonesia 2023.

DISCUSSION

Children are a group that has a higher risk factor for experiencing symptoms. The effects of traumatic symptoms in children such as traumatic. Symptoms of post-traumatic stress in children can last up to 30 years. symptoms caused in children such as fear, anxiety depression, difficulty thinking and impaired concentration. Children who experience traumatic events usually show trauma reactions in the form of fear, worry, depression, withdrawal, nightmares, lack of concentration, loss of trust in others, refusal to speak, and psychosomatic physical complaints (5). Childhood events are not easy for everyone to understand and accept. Many children are afraid and confused. Parents, teachers, and other caregivers can help by listening and responding in a fair, consistent, and supportive way (15). Children's reactions to stressful situations depend on their age and developmental stage, their previous experiences, their current situation, the impact of the crisis on their mother, and other important things. Children will know that something is wrong, even if there is no one at home to talk to them about it. If they do not understand the truth, they fill in the gaps with their own knowledge, experiences and thoughts, which often leads to distraction (16).

Sometimes, painful symptoms appear when tested using neuroimaging techniques weeks or months after the event. . Perhaps research has shown that people with post-traumatic stress disorder (PTSD) may experience neurobiological changes, just as brain function may change after exposure pain. To reduce the trauma that occurs in children after the earthquake, it is necessary to carry out drawing therapy (17).

Drawing therapy is art therapy. Art therapy is therapy carried out through the creative process of art to heal the body, thoughts, feelings and emotions. Art therapy is very useful for children who experience emotional stress due to traumatic events, such as natural disasters or victims of violence (18).

Art therapy is usually carried out in hospitals or mental health clinics and communities, for example natural disaster evacuation centers, public facilities, social institutions. Art therapy has proven effective as a psychosocial intervention for post-disaster children in supporting psychological recovery from trauma. Activities carried out in art therapy sessions include: drawing, painting with the aim of communicating problems that are difficult to express in words, reducing stress and reconciling feelings (8).

According to the research that Art therapy has proven effective in increasing self-esteem. Art therapy given to children who were victims of the Mount Semeru

eruption included drawing activities, group storytelling, making crafts, writing and reading poetry, and singing (19). Drawing can help children focus more as they have better hand-eye coordination. In addition, children will be more sensitive to the environment, more understanding, and understanding (20).

Some of the regular changes are related to emotional memory, and Broca's area of the brain is related to speech. This will help explain the difficulties that trauma survivors have in discussing, retelling, or processing their experiences (21). The right brain function plays a more important role in intuitive and visual processes, one of which is drawing. Drawing can calm the left brain so that the gentle right brain can exert its extraordinary strength. A drawing method that can be used to optimize the right brain is drawing exercises. In the process of this method, memory and logic do not play a greater role and the right brain plays a role because it works simultaneously, works in context, and has the ability to synthesize the entire perspective of a model in a holistic manner (22).

Art therapy can be a form of psychotherapy for children who have experienced trauma by providing opportunities or help them find ways to express feelings through fun art activities. The creativity of the resulting art is shown through the choice of colors, line pressure, shapes, strokes, thickness and thinness, and certain image objects which can be an entry point for therapists in communicating with children. The activity carried out was drawing together to express their feelings, thoughts or memories which was then continued with a performance session to tell what they had drawn during the free drawing session so as to reduce psychological trauma in children after the earthquake (23). Developmental suggestions in psychology research point the way for developments in art therapy. Today, many psychologists consider evaluations to be an drawing (24).

CONCLUSION

In dealing with children's psychological trauma after the earthquake, nursing therapy is necessary. One of them is drawing therapy, because children like to draw. This is a way to divert children from the feelings of trauma they are experiencing. This drawing therapy is art therapy. Providing art therapy is one of the activities to psychologically restore children to avoid fear and post-traumatic anxiety due to the earthquake. If this psychological impact is not immediately addressed, it can interfere with daily life and child development. It is hoped that the results of this study can be incorporated into related studies authorities to pay attention to

handling the psychological impact of disaster victims, especially on vulnerable groups such as children.

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