

Art Therapy for Adjustment Disorders in Adolescent with Systemic Lupus Erythematosus (SLE) and Pulmonary Tuberculosis (TB)

Karina Oclaudya*, Rr Indah Ria Sulistyari

Faculty of Psychology, University of Islam Indonesia, Jalan Kaliurang Km. 14,5, Sleman, Daerah Istimewa Yogyakarta 55584, Indonesia

*Corresponding author: 17915044@students.uii.ac.id

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Abstract

This study presents an experimental Single Case-Single Subject ABA design of a 17-year-old female patient suffering from Systemic Lupus Erythematosus (SLE) and Pulmonary Tuberculosis (TB) who experience adjustment disorders. The purpose of this study is to reduce adjustment disorders in the patient with SLE and pulmonary TB by using art therapy. The assessment methods are observation, interviews, and psychological testing tools. Data analysis was carried out using the qualitatively and quantitatively. Quantitative analysis is performed using visual inspection by looking at the comparison of Depression Anxiety Stress Scale (DASS) scores. Initial measurements using DASS showed a level of depression with a score of 26 (severe), anxiety score at 23 (very severe), and stress score at 19 (moderate). Art therapy is given as a therapeutic intervention for the patient. After the therapy was given, there was a decrease in the DASS score with a depression score to 20 (moderate), anxiety score at 19 (severe), and stress score at 17 (mild). The patient also felt more able to express and control emotions more precisely. These results indicate that art therapy is one of the interventions that can overcome psychological problems in the patient with adjustment disorders.

Keywords: Adjustment disorders, anxiety, art therapy, pulmonary TB, systemic lupus erythematosus.

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1.0 INTRODUCTION

Systemic Lupus Erythematosus (SLE) is a disease that is characterized by excessive production of antibodies against the components of the cell nucleus and gives rise to a variety of clinical manifestations in organs (Cleanthous, Tyagi, Isenberg, & Newman, 2012). SLE is the result of disrupted regulation of the immune system which causes excessive production of autoantibodies. SLE or often referred to as lupus is the most severe and serious form of lupus. This type involves the skin, joints, blood, and other organs such as the brain, kidneys, liver, and others (Arief, 2010). Symptoms of lupus vary from one individual to another. Symptoms and complaints that are often found in people with SLE are fatigue, fever, loss of appetite, muscle aches, arthritis, mouth and nose sores, facial rash (butterfly rash), sensitivity to sunlight, inflammation along the periphery of the lungs, and lack of circulation in the fingers and toes on exposure to cold (Helmi, 2008).

Based on data from the World Health Organization (WHO), the number of lupus sufferers in the world until 2017 reached five million people, and every year more than 100 thousand new cases are found. According to the 2016 Online Hospital Information System (SIRS) data, there are 2.166 in patients diagnosed with lupus. This number has doubled compared to 2014, with the discovery of 1,169 new cases. The high mortality rate due to lupus needs special attention because 25% or around 550 people died from lupus in 2016. Most lupus sufferers are women from the productive age group with a range of 15-50 years (Pusdatin, 2017).

Poespitari, Dinakrisma, and Anggoro (2018) stated that SLE patients have a seven-fold higher risk for the occurrence of Tuberculosis (TB). Furthermore, research conducted by Zhang, Wang and Ma (2008) found that of 452 SLE patients who received therapy, including 42 patients diagnosed with TB, 11 patients (23.8%) had pulmonary TB. Pulmonary TB indicated by the patient begins with a continuous cough. Coughing is accompanied by phlegm mixed with blood. At the beginning of the examination the patient was diagnosed with pneumonia, but after further examination, the patient tested positive for pulmonary TB.

Tuberculosis is a lung disease caused by the bacteria *Mycobacterium tuberculosis*. TB will cause symptoms in the form of a cough that lasts longer (more than 3 weeks), usually phlegm, and sometimes bleeding. TB sufferers will also feel fever, weakness, weight loss, loss of appetite, chest pain, and night sweats. Pulmonary TB can be transmitted through the air, when someone with active TB in the lung coughs, sneezes or talks (Wahyuningsih, 2014).

Based on the results of the interview, patients diagnosed with SLE and pulmonary TB began to have problems both physically and psychologically. On the physical side, pain at the joints, especially at the legs which makes it difficult for the patient to walk, shiver, headaches, tremors, especially at the hand, and numbness on the legs. On the psychological side, there are feelings of worry, anxiety, fear, sadness, and boredom in the series of treatments.

This has an impact on her daily activities to be very dependent and needs helps from others. During the treatment process, the patient could not go to school. The patient was even unable to do simple physical activities. Patient more often sits still or lie down, and when a walking patient needs to be supported or helps from others. Another impact is that patients often cry, get angry easily, disturbed eating patterns, disturbed sleep patterns, feelings of wanting to give up, also limit and withdraw themselves from the social environment. This is more intense felt until entering the second month of treatment.

This condition shows that the patient has a disorder of adjustment to the conditions they are experiencing. Adjustment disorders are emotional responses to stressful events. The incident is a medical illness suffered by the patient. Adjustment disorders are characterized by symptoms of psychological distress and decreased social functioning (Carta, Balestrieri, Murru & Hardoy, 2009).

Some efforts that can be done to overcome the adjustment disorders include drug therapy and psychological therapy. Drug therapy can help overcome symptoms such as depression, anxiety and negative thoughts in patients. Antidepressants and anti-anxiety drugs are the drugs most often used to treat adjustment disorders.

Also, psychological therapy is needed as a companion and support for drug therapy. Psychological therapy can help individuals to adapt to stressors that patients feel. There are many types of psychological therapy to deal with adjustment disorders. One of them is a study conducted by Safithry (2015) regarding cognitive restructuring to reduce adjustment disorders in adolescents. This type of research is a case study, the results of these studies indicate that cognitive restructuring can reduce anxiety disorders in adolescents, adolescents can recognize negative thoughts and motives that drive them. Teenagers also realize that negative thoughts can disrupt their lives. Besides, adolescents can make lists about solving the problem that is being faced.

Based on these results, it is known that cognitive restructuring does indeed reduce adjustment disorders in adolescents. However, cognitive approaches usually have weaknesses related to individual cognitive abilities. If someone has a low cognitive capacity, it will be difficult to follow the therapy process. The cognitive approach also involves tasks and requires a deep thought process. Cognitive approach therapy is also self-centered so that it has a lack of involvement with the surrounding environment such as parents and peers who play a role in the emergence of individual problems (Karismatika, 2014).

Especially in patients with SLE and pulmonary TB requires a psychological intervention that is lighter, more pleasant, and more flexible. Interventions that can be given are art therapy, this therapy can facilitate patients to do catharsis and express emotions more positively. Research conducted by Wikstrom (2005) also shows that expressive art therapy is very helpful for expressing pain and feelings of being confined in a hospital. Art therapy helps patients freely vent their feelings through art.

Thus, this study aims to reduce adjustment disorders in adolescents with SLE and pulmonary TB. Adolescents can express themselves, relieve stress, reduce symptoms of anxiety and depression through the work of art that has been made. The benefit of this study is to help adolescents with SLE and pulmonary TB in overcoming adjustment disorders. Another benefit is as a reference for readers and patients with similar diseases to be able to apply art therapy as an alternative in helping to alleviate psychological problems.

■ 2.0 LITERATURE REVIEW

According to Strain and Friedman (2011), adjustment is the ability of humans to deal with demands. Demands could come from themselves or from the environment. If people can balance the demands with the fulfillment of their needs, the harmony will be created between individuals and reality. However, if he fails to balance it, there will be adjustment disorder. Adjustment disorders are emotional responses to stressful events. Stressors include economic problems, medical illnesses, or relationship problems with other people.

One of the stressors of medical illnesses that cause adjustment disorders is SLE. SLE is an autoimmune disease that causes the immune system to attack healthy tissues. SLE is the most difficult type of lupus to detect because the symptoms in this disease often resemble other diseases, so SLE is often referred to as a thousand-faced disease (Arief, 2010).

Furthermore, Roviati (2012) said that the manifestations of SLE disease attack many other organs including the lungs. For example: pneumonia, pleurisy, to pulmonary TB. Pulmonary TB is an infectious disease, which mainly attacks lung parenchymal disease. The name tuberculosis comes from tubercles, which means small, hard bulges that form when the immune system builds a wall around bacteria in the lungs.

Pulmonary tuberculosis is a chronic disease and is typically characterized by granuloma formation and causes tissue necrosis. Pulmonary TB could cause death if not treated properly. This disease is increasingly vulnerable to someone who has problems with endurance (Mughtar, Herman, & Yulistini).

Various psychological problems then arise as a result of physical pain suffered. Among them are anxiety, worry, feeling depressed, to depression. Expressing and releasing their emotions is one of the efforts to help the patients. Namely by doing something fun through interventions in the form of art therapy (Edwards, 2004).

Previous research conducted by Rahmawati, Hapsari and Suryani (2018) found that art therapy can increase self-esteem in children with leukemia. Art therapy is given to pediatric patients with leukemia who are undergoing chemotherapy at the age of preschool and school (4-12 years), and also need to be hospitalized for at least 3 days. Based on this research, it was found that the provision of art therapy can increase self-esteem in children with leukemia, seen from an increase in the mean score for self-esteem scores after being given art therapy. Art therapy facilitates children to express their emotions, and helps children to identify what emotions are being felt.

■3.0 METHODOLOGY

Design

This study uses a single case-single subject ABA experimental design. A single case experimental designs to evaluate the effect of treatment with a single subject (Latipun, 2010). Table 1 represents the single case-single subject ABA design. First, the researcher conducted initial measurements on the patient as a baseline (O₁). Then, the researcher gave art therapy treatment (X). After the treatment is given, the researcher makes a final measurement on the patient as endline (O₂).

Table 1 Single case-single subject ABA design

	A ^a	B ^b	A ^c
The Patient	O ₁	X	O ₂
	^a Baseline ^b ArtTherapy	^c Endline	

The Research Respondent

The respondent of this study is a 17-year-old female teenage patient who has an adjustment disorder. The respondent suffers from SLE and pulmonary TB which has been going on for 2 months. The respondent has psychological problems that are indicated by the level of anxiety at a very severe level, the level of depression at a severe level, and the level of stress at a moderate level.

Instruments

To determine the initial condition of the patient, the researcher conducted an assessment in the form of observation, interviews, and the use of psychological test kits. Psychological testing instruments used are graphic tests (BAUM, DAP, HTP, Wartegg), intelligence tests with Standard Progressive Matrices (SPM), and DASS (Depression Anxiety Stress Scale). Observations, interviews, and drawing tests are used to determine the condition and personality of individuals related to emotions, self-perception, and the relationship of individuals with their social environment. The SPM test is used to determine cognitive abilities and the level of intelligence possessed by individuals. DASS is a test tool to reveal individual stress, anxiety and depression levels.

Procedure

Preliminary studies and initial measurements of the patient's condition are carried out. Initial measurements were carried out by observation, interview, and using psychological testing tools (BAUM, DAP, HTP, Wartegg, SPM, and DASS). The researcher then chooses one of the interventions that are following the patient's condition and can be used to overcome problems experienced by the individual. The intervention that the researcher chose was art therapy. A researcher doing art therapy using a psychoanalysis approach. The psychoanalysis approach with art therapy techniques is an effective form of psychotherapy as a cathartic media or expressing the feelings of individuals. The intervention design uses expressive art therapy stages compiled by Adibah and Zakaria (2015). Consists of 8 stages including drawing everything, sketch map of life, extreme negative feelings and thoughts, butterfly stories, waterfall painting, and reflection & expressive writing. This intervention was conducted eight times, and each meeting always prioritizing the patient's condition and readiness. During the therapy process, the researcher acts as a facilitator who provides therapy to the patient. After the therapy is given, the final measurement is done by giving back the DASS scale and interview.

■4.0 RESULTS

Based on the results of initial measurements in the form of interviews, it was found that the patient complained about her current condition. The patient complained of not being able to do the patient's hobby for exercising. The limitation of her activities caused especially by their physical Pain. The Patient Feels Sad, Worried, And Often Cry Because Now She Can Only Sit And Cannot Do Much Activity. The Patient Has Difficulty Even For Simple Things Like Walking. The Patient Also Feels Anxious When Taking Chemotherapy.

Table 2 Represents The Categorization Of Depression Anxiety Stress Scale (DASS). Based On The Results Of Quantitative Analysis, Obtained Data Based On Visual Inspection Of Changes In The Score Baseline To Endline, That It Shows At Table 3. There Has Been A Change In The DASS Score Which Has Decreased As Shown In Figure 1. In The Baseline, Measurement Shows The Level Of Anxiety With A Score Of 23 (Very Severe), Depression With A Score Of 26 (Severe), And Stress With A Score Of 19 (Moderate). Furthermore, In The Endline Measurement, After Being Given Intervention In The Form Of Art Therapy, Anxiety Scores Decreased To 19 (Severe), Depression 20 (Moderate), And Stress With A Score Of 17 (Mild). The Decrease In Score Indicates That The Intervention In the form of art therapy can reduce the problem of adjustment disorders experienced by patients with SLE and pulmonary TB.

Table 2 Depression anxiety stress scale (DASS) categorization

Aspect	Category				
	Normal	Mild	Moderate	Severe	Very Severe
Depression	0-9	10-13	14-20	21-27	≥ 28
Anxiety	0-7	8-9	10-14	15-19	≥ 20
Stress	0-14	15-18	19-25	26-33	≥ 34

Table 3 Results of DASS baseline and endline scores

Aspect	Baseline	Category	Endline	Category
Depression	26	Severe	0	Moderate
Anxiety	23	Very Severe	9	Severe
Stress	19	Moderate	7	Mild

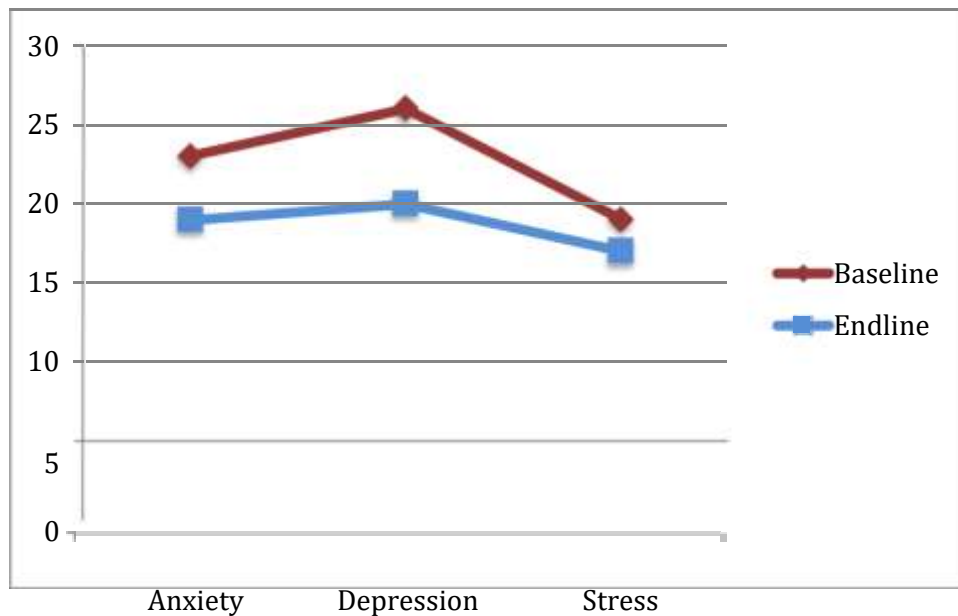



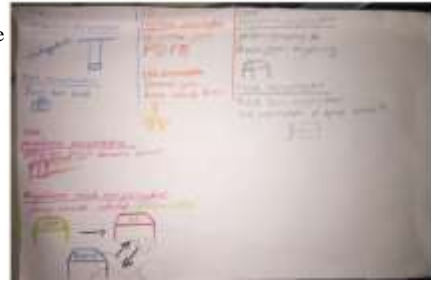
Figure 1 DASS baseline and endline scores

Qualitative analysis results were obtained during the art therapy process and also after the intervention process was carried out. Table 4 represents the qualitative results for each art therapy session. The art therapy process consists of 8 meetings that lasted for a month. The gap between meetings is one day, three day, and one-week intervals (because the patient has just finished doing chemotherapy and requires time to recover). Each meeting always considers the condition and readiness of the patient, especially in terms of physical health.

Table 4 Qualitative analysis results for each art therapy session

Session	Description	Pictures
Art Therapy: Drawing Everything	The patient could express their feelings through a picture and through the stories told by her. The patient feels happy and understands that expressing feelings can reduce the patient's sadness and worries	
Art Therapy:	The patient understands that each phase	

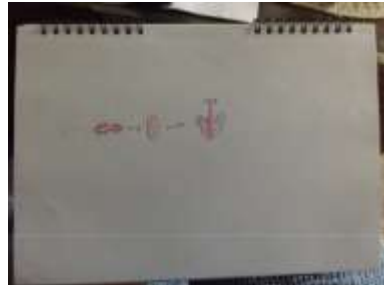
Sketch Map of Life life has its challenges. The patient begins to understand that she will try to be more excited and optimistic when doing a medical treatment.



Art Therapy: Extreme Negative feeling and Thoughts The patient expresses her negative feelings through drawing something that resembles tangled threads.



Art Therapy: Butterfly Stories The patient realizes that life is a process. The patient can set the closest target to be achieved. The target is to undergo the treatment process until it is finished and healed.



Art Therapy: Waterfall Painting The patient feels calm after listening and drawing the atmosphere of the waterfall.



Art Therapy: Reflection & writing. Expressive Writing emotions. The patient writes her feelings through writing. The patient then understands that there are many ways to express. The patient feels more optimistic about her life..



The Patient tells what she felt at each art therapy session. The patient feels she is getting a new activity outside of physical activities such as sports (which are the patient's hobby), thus helping to overcome the patient's boredom. The patient also begins to know and understand ways to express and control emotions in a better form. The patient becomes motivated to go through treatment procedures and will enjoy the treatment process. Besides, the patient can set the closest target to be achieved, the target is completing the treatment procedure.

■ 5.0 DISCUSSION

This study aims to overcome adjustment disorders in adolescents suffering from SLE and pulmonary TB. In this study, adjustment disorders were shown including the presence of feelings of stress, anxiety, and depression within 1 month after the occurrence of stressful events that is since being diagnosed with SLE. Adjustment disorders occur when people are unable to overcome the problems encountered and cause responses and reactions that are not appropriate or maladaptive and uncontrolled emotional control. The many obstacles in carrying out daily activities reflect the difficulties in making adjustments (Ghufron & Risnawati 2011).

Based on the results obtained using DASS, it is known that the patient has decreased anxiety, depression, and stress scores. Although the score reduction is not large, the researcher considers it a positive change. This result is also supported by the results of interviews that the patient feels more able to control emotions, become more tolerant and have new activities that make themselves not saturated with the treatment process. Thus, the hypothesis in this study was accepted.

These findings are also supported by research conducted by Adriani & Satiadarma (2011) regarding the effectiveness of art therapy in reducing anxiety in adolescent patients with leukemia. The research shows that art therapy is effective in reducing anxiety in leukemia patients. Through the process of art therapy done by drawing, leukemia patients can express feelings of anxiety. Thus, the burden of anxiety is reduced.

From childhood until before severe SLE has been diagnosed, the patient has never had serious health problems. The patient is also accustomed to doing a lot of physical activity because the patient likes outdoor activities. When diagnosed with Severe SLE, the condition becomes a serious problem for the patient. This condition is very contrary to the situation before the patient was sick. The effects of the disease very much affect the physical function of the patient. People with lupus will feel very heavy fatigue, pain, and discomfort in their body, fever, sensitivity to sunlight, swelling in the limbs (Sismadi, 2005). It will be made worse if it attacks other organs such as the kidneys, thyroid, and lungs as experienced by the patient.

According to Hurlock (2008), one of the tasks of adolescent development is being able to accept his physical state and use his body effectively. As an individual who has a masculine character like a patient, of course, this becomes a special pressure for the patient. From the perspective of psychoanalysis, the pressure causes the individual to fail in adjustment. Adjustment is related to a dynamic and continuous process, including mental responses and behavior as an attempt by individuals to achieve harmony and harmony in oneself, others, and the environment (Kanugraha, 2012). Some things that can affect adjustment include physical conditions related to the level of health and pain experienced by individuals. People who have good physical health will find it easier to realize good self-acceptance, feel confident, have good self-esteem so that it affects the adjustment of good individuals.

Art therapy is one of the media to vent what is felt by the patient who has been buried, especially since being diagnosed with SLE and undergoing a series of treatment processes. Through drawing also helps patients to recognize what is needed by a patient that may not be expressed through ordinary verbal conversation. In the drawing of everything session, the patient draws an erupting mountain. The picture illustrates the emotional feelings of the patient who is explosive about the changing conditions she experience. Through these images also allows the patient to tell more about what is felt and what is on her mind. Based on research conducted by Wallin and Duur (2002), it is known that art therapy with drawing activities is effective in increasing social and emotional learning abilities.

In addition to helping the patient to vents her feelings, this art therapy also helps the patient to see flashbacks of their previous lives to revive the optimism that exists in the patient. One of them, by drawing a patient's life journey from childhood to the present includes pleasant experiences and unpleasant experiences that have been passed. Then draw a butterfly metamorphosis. The sessions invite patients to realize that each phase of life has its challenges, and life is an ongoing process. To get something beautiful the patient needs to go through stages that are felt to be unpleasant including the pain that is being experienced.

The American Art Therapy Association defines art therapy as a therapeutic technique aimed at people who are experiencing a physical illness, trauma, or changes in life by reflecting on a work and aims to increase self-awareness, find ways to deal with psychological symptoms, stress and traumatic experience, and improve cognitive abilities through the process of making art (Edwards, 2004).

In other art therapy sessions, there are also drawing sessions that provide a relaxing effect on the patient. Before drawing, the patient is given relaxation music in the form of the sound of water gurgling accompanied by soft music as background sound. The sound is described by the patient as the atmosphere of a waterfall, on a soothing hill. Listening to the sound of gurgling water, and the sound of running water is an atmosphere that makes patients relax.

Positive experiences felt by the patient during the intervention process show that art therapy helps the patient overcome psychological problems. According to Hirawan (2014), socially and emotionally, drawing and coloring activities can release tension and reduce anxiety, increase awareness and self-confidence, and facilitate people in recognizing emotions and expressing them. Besides, in communication, through drawing and coloring, people can develop nonverbal expressions, emotional expressions and help people express their ideas.

■ 6.0 CONCLUSION

Based on research that has been done, it can be concluded that art therapy can overcome adjustment disorders in the adolescent with SLE and pulmonary TB. The effectiveness of this therapy is also proven quantitatively and qualitatively. Quantitatively, there are differences in DASS scores between before and after an intervention is given. DASS scores decrease when art therapy interventions are given.

Qualitative results can be known through interviews based on statements made by the patient about what is felt. Patients feel calmer, could control emotions better, and could overcome boredom by doing art therapy.

Art therapy could facilitate the patient to alleviate and overcome the psychological problems being faced. Art therapy is an activity that is fun and easy to do. This therapy is very suitable to be given to people who have limitations in carrying out daily activities caused by illness.

Another advantage of this art therapy is there is no age limit in doing this therapy. Art therapy can be given for all ages from children to the elderly. Flexibility in this therapy makes it easy to be adjusted to the conditions of people who will be given therapy. Thus in the future innovations for this therapy will be more varied and can follow the evolving digital era.

The limitation of this study caused by the many stages of art therapy that is there are 8 sessions and meetings. Therefore the intervention process requires quite a long time. Another limitation is the small number of respondents (only one respondent), so there is no comparison of results for respondents with similar criteria.

Suggestions

Suggestions that can be given for further research is to choose art therapy with a smaller number of sessions and meetings, especially if given to patients who are undergoing intensive care at the hospital. Another suggestion is to add variations of art therapy using other media. Other media that can be used besides drawing and writing are using clay, synthesis sand, or using electronic media.

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