



EFFECTIVENESS OF COLLAGE-BASED ART THERAPY IN REDUCING ANXIETY AMONG CHILDREN WITH THALASSEMIA

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ABSTRACT

Art therapy has been increasingly recognized as an effective therapeutic intervention for managing various psychological issues, including anxiety, depression, and stress, especially in pediatric and geriatric populations. Collage-making, a form of art therapy, has shown promise in helping individuals express emotions, reduce anxiety, and improve mental well-being. Objective to explore the effects of art therapy using collage media on reducing anxiety in children with Thalassemia. A case study approach was employed with two subjects, one child and one elderly individual, who underwent three sessions of collage art therapy over the course of three days. Each session lasted 30 minutes and focused on creating collages that allowed participants to express their emotions and experiences. Anxiety levels were assessed using the Revised Children's Manifest Anxiety Scale (RCMAS) for the child and a similar anxiety assessment tool for the elderly participant. The child showed a significant reduction in anxiety, with the RCMAS score decreasing from 24 (indicating moderate anxiety) to 8 (indicating no anxiety) after three sessions. The elderly participant also exhibited a decrease in anxiety levels, with the final anxiety score dropping from 25 to 10. Both participants reported feeling more relaxed and emotionally relieved after the sessions. Art therapy using collage media effectively reduced anxiety levels in both children and elderly individuals. The creative process of collage-making provided a safe and engaging outlet for emotional expression, helping to alleviate anxiety.

Keywords: anxiety; art therapy; collage; emotional expression; therapeutic intervention

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INTRODUCTION

Chronic illnesses in children are abnormal conditions that disrupt the normal course of childhood. Children with chronic illnesses share similar developmental needs with their peers, yet their ability to achieve developmental milestones is often hindered by the additional demands of chronic conditions and prolonged treatment regimens (Carlina, 2019). Childhood chronic illnesses can significantly impact a child's well-being and life. These illnesses include rheumatic heart disease, congenital heart disease, type 1 diabetes, asthma, cancer, epilepsy, and blood disorders like thalassemia (Ata, 2019). Among these, thalassemia is a hereditary hemolytic disease with a high global prevalence and incidence. It poses a serious health issue with substantial mortality rates and treatment costs annually (Rujito, 2020).

Thalassemia is a genetic blood disorder inherited from parents due to insufficient hemoglobin production, a critical component of red blood cells (CDC, 2021). It is characterized by the partial or complete absence of alpha or beta globin chains, essential for normal hemoglobin molecules (IDAI, 2016). Thalassemia affects approximately 4.4 out of every 10,000 live births worldwide (Smith, 2021). Globally, around 7% of the population carries the thalassemia trait, contributing to an estimated 50,000–100,000 annual deaths, with 80% of

cases occurring in developing countries (Carlina, 2019). Alpha thalassemia is common among Southeast Asian populations, with a prevalence of 1–30%, where up to 40% may carry the genetic trait. This genetic carriage is most prevalent in Sub-Saharan Africa and the Western Pacific, with rates as high as 50%. Beta thalassemia predominantly affects populations of Mediterranean, African, and South Asian descent due to genetic mutations. Its prevalence is highest in the Eastern Mediterranean (2–18%) and parts of Europe (0–19%) (Smith, 2021).

Indonesia, situated within the "thalassemia belt," has a carrier prevalence of 3.8% among its population, as reported by the Indonesian Ministry of Health's Non-Communicable Disease Control Program (P2TM). Data from the Indonesian Thalassemia Foundation shows a steady increase in cases from 4,896 in 2012 to 8,761 in 2018 (Carlina, 2019). Research by the Eijkman Institute reveals alpha thalassemia rates of 2.6–11% in Indonesia, with high prevalence among the Bugis and Kajang ethnic groups in Sulawesi, and beta thalassemia rates of 3–10%, particularly in Sumatra, including South Sumatra (IDAI, 2016). Preliminary studies at RSUD Siti Aisyah in Lubuklinggau indicate a rise in thalassemia cases over the past three years. Patient numbers increased from 72 in 2019 (6 monthly visits) to 96 in 2021 (8 monthly visits), primarily affecting children aged 5–12 years. However, no specific complementary therapy programs have been implemented to mitigate hospitalization impacts for children undergoing blood transfusion procedures (Carlina, 2019). While advances in thalassemia treatment have improved life expectancy, lifelong care imposes psychosocial burdens, including anxiety for both children and their families.

The ongoing transfusion treatments, disrupted educational activities, reduced playtime, and frequent hospital visits contribute to feelings of low self-esteem and fear among children (IDAI, 2016). A study at RSUD dr. R. Goeteng Taroenadibrata Purbalingga found that parents of thalassemia patients experienced severe anxiety, while children experienced anxiety at varying levels (Gani, 2018). Behavioral responses during transfusions, such as crying, clinging to parents, or panicking, are common (Sari, 2021). Chronic illness treatments often result in psychological effects like mood changes, anger, and anxiety, as well as physical consequences such as disrupted growth and appetite, all of which affect children's quality of life (Ridha et al., 2017). These challenges underscore the need for complementary and alternative medicine (CAM) approaches to mitigate psychosocial impacts (Aguilar, 2017). The World Health Organization (WHO) advocates for palliative care for children with chronic illnesses to alleviate symptoms, address psychological challenges, and improve quality of life for patients and families (WHO, 2021). CAM techniques, such as art therapy, music therapy, and dance therapy, have shown effectiveness in addressing psychological challenges in children with chronic conditions (Aguilar, 2017). Art therapy, in particular, reduces anxiety levels, as demonstrated in adolescents with chronic illnesses like leukemia (Adriani & Satiadarma, 2011). Through creative expression, children can process and visualize their fears, providing a therapeutic outlet for their emotions (ISCC, 2019).

Research by (Abdulah & Abdulla, 2018) highlights art therapy's benefits in improving physical activity, reducing anxiety, depression, and stress, and enhancing overall health in children. Herviana et al., (2019) emphasize that the creative process in art therapy facilitates self-expression and exploration. Jelinek, (2021) specifically recommends collage-making as a form of art therapy, promoting a sense of safety and relaxation while redirecting focus from anxiety. Studies have shown that collage-based art therapy reduces hospitalization-related anxiety in children. For instance, using cartoon collages over three sessions led to decreased anxiety and increased cooperation in children undergoing treatment (Prasetyo & Nurlaila, 2019). Collage activities lasting 90–120 minutes enable children to concentrate on self-

expression, redirecting their attention from their illness to the creative process (Nurmayunita, 2018). The study aims to evaluate the effectiveness of collage-based art therapy in reducing anxiety among children with thalassemia undergoing routine blood transfusions at RSUD Siti Aisyah Lubuklinggau, by analyzing the levels of anxiety experienced by these children, with collage-based art therapy sessions as an intervention.

METHOD

The design of this study is a case study using a descriptive method aimed at objectively describing the condition under investigation and conducting an in-depth analysis of art therapy interventions using collage media to reduce anxiety in children diagnosed with thalassemia. The study involves two pediatric patients diagnosed with thalassemia and presenting anxiety. Interventions were conducted at RSUD Siti Aisyah, Lubuklinggau City. In Subject I, interventions were carried out from July 8, 2024, to July 10, 2024, while for Subject II, interventions were conducted from July 11, 2024, to July 13, 2024. Inclusion Criteria: 1)Willingness of the patients and their families to participate as respondents. 2)Diagnosed medically with thalassemia. 3)Children aged 6–19 years. 4)Indication of anxiety based on an anxiety assessment scale for children. Exclusion Criteria: 1)Patients with upper extremity muscle weakness or strength issues. 2)Patients experiencing decreased consciousness. 3)Patients with activity intolerance preventing participation in collage-based art therapy. 4)Patients unable to complete the full research program.

RESULT

Case I

An. A 8-year-old boy, was diagnosed with Thalassemia at the age of 1. He comes from a family with limited educational background; his father is a farmer, and his mother is a homemaker. The child exhibits symptoms such as pallor, fatigue, and fever. His physical condition includes a weight of 24 kg, a height of 120 cm, and a body temperature of 38.5°C. A family health history reveals potential genetic factors related to Thalassemia. The subject lives in a rural environment with a harmonious family dynamic. He has received all required immunizations on schedule and has shown appropriate growth and developmental milestones for his age. During illness, there is a decrease in appetite, reduced physical activity, disrupted sleep patterns, and changes in personal hygiene. Physical examination indicates anemia, splenomegaly, and fever. Treatment includes regular blood transfusions and 250 mg of paracetamol when needed. Based on the Revised Child Anxiety Manifest Scale (RCMAS), the child shows signs of anxiety with a total score of 24.

Case II

An. C 10-year-old girl, was also diagnosed with Thalassemia at 6 months old. She comes from a modest family background, with her father working as a farmer and her mother as a homemaker. Her symptoms include pallor, fatigue, and fever over the past two days. The child weighs 30 kg and has a height of 130 cm. A similar family health history to Subject I suggests a hereditary pattern. She lives in a rural area with a supportive family environment. Her immunizations are up-to-date, and her growth and development are consistent with her age. During illness, she experiences changes in eating habits, sleep patterns, and physical activity. Physical examination shows signs of anemia and splenomegaly. Treatment involves routine blood transfusions. Anxiety levels were assessed using the RCMAS, with results indicating anxiety. Both subjects require holistic nursing care addressing physical, psychosocial, and spiritual aspects. Care priorities focus on managing anxiety due to hospitalization and supporting families in meeting the children's basic needs and therapeutic interventions.

Table 1.
Evaluation of Anxiety Scale Before and After Collage Art Therapy Media Intervention

Day/Date	Time	Pain Scale Before Collage Art Therapy	Time	Pain Scale After Collage Art Therapy	Note
Monday, July 8, 2024	10:00	24 (Anxiety Indication)	13:30	23 (Anxiety Indication)	Change
Tuesday, July 9, 2024	19:30	23 (Anxiety Indication)	20:30	19 (Normal)	Change
Wednesday, July 10, 2024	10:00	19 (Normal)	11:00	8 (Normal)	Change

Table 1. shows the evaluation of collage art therapy media in Subject I. After three interventions, the first intervention showed an RCMAS score of 23, which dropped by 1 point; the second intervention dropped to 19, and the final intervention decreased to 8, indicating no anxiety.

Table 2.
Evaluation of Pain Scale Before and After Collage Art Therapy Media Intervention for Subject II

Day/Date	Time	Pain Scale Before Collage Art Therapy	Time	Pain Scale After Collage Art Therapy	Note
Saturday, July 11, 2024	10:00	25 (Anxiety Indication)	13:30	25 (Anxiety Indication)	No Change
Sunday, July 12, 2024	19:30	23 (Anxiety Indication)	20:30	20 (Anxiety Indication)	No Change
Monday, July 13, 2024	10:00	20 (Anxiety Indication)	15:00	10 (Normal)	Change

Table 2. shows the post-intervention evaluation of collage art therapy media for Subject II. After three interventions, the first intervention showed an RCMAS score of 25, which remained the same. The second intervention reduced to 20, and the final intervention dropped to 10, indicating no anxiety.

DISCUSSION

For Subject I, during the initial assessment, the RCMAS score was 24, indicating anxiety, with a concentration and social concern category score of 5, a worry or over-sensitivity category score of 13, and a psychological anxiety category score of 6. However, after undergoing 3 sessions of Collage Art Therapy, there was a decrease in the anxiety scale, resulting in a final RCMAS score of 8, indicating no anxiety, with a concentration and social concern score of 0, a worry or over-sensitivity score of 5, and a psychological anxiety score of 3. For Subject II, during the initial assessment, the RCMAS score was 25, indicating anxiety, with a concentration and social concern category score of 5, a worry or over-sensitivity category score of 13, and a psychological anxiety category score of 7. After undergoing 3 sessions of Collage Art Therapy, the anxiety scale decreased, resulting in a final RCMAS score of 10, indicating no anxiety, with a concentration and social concern score of 0, a worry or over-sensitivity score of 7, and a psychological anxiety score of 3. Art therapy is defined as any form of artistic activity expected to improve an individual's physical, mental, and emotional well-being through the creative process of producing art. This intervention has been widely used as an adjunct therapy in palliative care for various conditions (Aguilar, 2017). Art therapy provides a space for free expression that aligns with the doctor's instructions for children living with chronic illnesses and undergoing treatment (ISCC, 2019), expressing locked emotions, overcoming fear and anxiety, improving self-confidence, and creating positive distractions.

A study (Widiyawati et al., 2020) on the use of Art Therapy with collage media for hospitalization anxiety in 30 preschool children at Surakarta General Hospital showed a

decrease in anxiety intensity during treatment. Supported by (Prasetyo & Nurlaila, 2019), who used cartoon collages over 3 sessions, anxiety intensity decreased, and there was an increase in children's cooperation during treatment. Collage-making activities require 90-120 minutes, which helps children concentrate more on expressing themselves. This is expected to distract them from thinking about their illness and reduce anxiety during the treatment process (Nurmayunita, 2018). The implementation of attention distraction techniques using Art Therapy with collage media is part of the Indonesian Nursing Intervention Standards (SIKI) for anxiety reduction through distraction techniques. In Subject I, interventions were carried out from July 8, 2024, to July 10, 2024, while for Subject II, interventions were conducted from July 11, 2024, to July 13, 2024, with the same duration of 30 minutes for 3 sessions. The anxiety level evaluation for Subjects I and II in this study used the Revised Children's Manifest Anxiety Scale (RCMAS), which is used to assess the degree and quality of anxiety experienced by children and adolescents.

For Subject I, the initial RCMAS score was 24, indicating anxiety, with scores in the categories of concentration and social concern (5), worry or oversensitivity (13), and psychological anxiety (6). After 3 sessions of Art Therapy with collage media, the final RCMAS score dropped to 8, indicating no anxiety, with scores of 0 for concentration and social concern, 5 for worry or oversensitivity, and 3 for psychological anxiety. For Subject II, the initial RCMAS score was 25, indicating anxiety, with scores in the categories of concentration and social concern (5), worry or oversensitivity (13), and psychological anxiety (7). After 3 sessions of Art Therapy with collage media, the final RCMAS score dropped to 10, indicating no anxiety, with scores of 0 for concentration and social concern, 7 for worry or oversensitivity, and 3 for psychological anxiety.

The reduction in anxiety scores and the absence of anxiety indicators in Subjects I and II are influenced by various factors. However, the role of Art Therapy with collage media as a distraction technique was a key factor for both subjects in expressing locked emotions through collage, using imagination to visualize their worries (ISCC, 2019). According to research by Abdulah & Abdulla (2018), Art Therapy activities give children the opportunity to participate in social interaction, which shows an increase in physical and energetic activity, decreases anxiety, depression, stress, and emotional distress, and results in better overall health status (Abdulah & Abdulla, 2018). The strength of Art Therapy for children with chronic illnesses lies in the creative process, which facilitates self-expression and exploration (Herviana et al., 2019). recommended art therapy technique, according to Jelinek, (2021) is making collages. Creating peaceful images in a collage can make someone feel safe and comfortable, and the act of creating a collage can transport the person into a different mental space, helping to distract them from their anxiety.

Art therapy has become a vital therapeutic approach in various clinical contexts, providing a non-verbal outlet for emotional expression and psychological healing across different age groups. In pediatric oncology, it creates a supportive environment that helps children express repressed emotions and thoughts, thereby reducing the psychosocial effects of invasive treatments (Rosa et al., 2024). Collage art therapy has proven to be highly effective in alleviating anxiety among children and adolescents, as demonstrated by multiple studies. In the cases of Subjects I and II, both showed a significant reduction in anxiety scores after undergoing three sessions of collage art therapy, which aligns with broader research emphasizing the therapeutic benefits of art interventions. Art therapy offers a creative outlet for self-expression, enabling individuals to process and communicate emotions that might otherwise remain unspoken, thereby lowering anxiety levels (Bo et al., 2024). Engaging in

art-making activities, such as creating collages, helps children focus their attention away from their worries, supporting the use of art therapy as a distraction technique according to the Indonesian Nursing Intervention Standards (PPNI, 2018). This approach not only aids in emotional regulation but also contributes to improvements in executive functioning, as seen in other case studies where art therapy promoted greater emotional tolerance and self-acceptance (Abbing et al., 2019).

In conclusion, the application of collage art therapy has demonstrated significant potential in reducing anxiety levels among children, as observed in the cases of Subjects I and II. After undergoing three sessions of art therapy, both subjects showed marked improvements in their anxiety scores, supporting the broader research that highlights the effectiveness of art therapy in alleviating anxiety and enhancing emotional well-being. By providing a creative outlet for self-expression, art therapy allows individuals to process and express emotions that might otherwise remain suppressed, thereby offering an effective tool for anxiety reduction. However, this study has limitations as it is based on a small sample size with only two subjects, which may limit the generalizability of the findings. Further research with a larger and more diverse group of participants would be beneficial to confirm the results and explore the broader applicability of collage art therapy as an intervention for anxiety in children and adolescents. Additionally, the short duration of the intervention and the potential influence of other variables not accounted for in the study should be considered in future research to ensure a more comprehensive understanding of the therapy's impact.

CONCLUSION

The application of collage art therapy to two subjects over three days has shown positive effects in reducing anxiety levels, as evidenced by the decrease in anxiety scale scores assessment scores using the Revised Children's Manifest Anxiety Scale (RCMAS).

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