JCNSP
Journal of Clinical Nursing Studies and Practice
https://journal.stikespemkabjombang.ac.id
Volume 02 Number 02
November 2026
e-issn: 3124-7466

THE EFFECT OF COLLAGE PLAY THERAPY ON CHILDREN'S ANXIETY LEVELS WITH HOSPITALIZATION IN THE BOUGENVILLE ROOM OF DR. SOEROTO HOSPITAL NGAWI

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Submitted:
27 October 2026
Accepted:
30 October 2026

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ABSTRACT

Anxiety in hospitalized children often manifests as crying, screaming, and resistance when approached by healthcare professionals. Collage play therapy is one intervention that may help reduce anxiety during hospitalization. This study aimed to determine the effect of collage play therapy on anxiety levels in hospitalized preschool children in the Bougainville Room of Dr. Soeroto Ngawi Hospital. This study employed a pre-experimental design with a one-group pretest–posttest approach. The population consisted of 27 children, with 20 participants selected using quota sampling. The independent variable was collage play therapy, while the dependent variable was anxiety level. Data were collected using the Preschool Anxiety Scale questionnaire and analyzed using the Wilcoxon Signed-Rank Test. Before the intervention, most children experienced severe anxiety. Following collage play therapy, anxiety levels decreased, with most children experiencing moderate anxiety. The Wilcoxon test indicated a statistically significant effect of collage play therapy on anxiety levels in hospitalized preschool children. Collage play therapy has a significant effect on reducing anxiety levels in hospitalized preschool children. Hospitals are encouraged to provide age-appropriate play facilities to support children's emotional well-being during hospitalization.

Keywords: Collage play therapy, Anxiety, Preschool childern

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https://doi.org/10.33023/jikep.v11i3.3442

Introduction

The process of care and treatment provided by healthcare professionals in a hospital setting can trigger anxiety in both patients and their families. Childhood encompasses five developmental stages: infancy (0–11 months), toddlerhood (1–3 years), the preschool years (3–6 years), the school-age years (6–12 years), and adolescence (12–18 years) (Pratiwi et al., 2021). Preschool-aged children possess distinct physical, motor, linguistic, and social developmental characteristics compared to other age groups. During hospitalization, children often become uncooperative with their care and treatment; they may resist or refuse interaction, and exhibit behaviors such as anger, crying, screaming, or even lashing out when nurses or doctors approach (Novia & Arini, 2021). Hospitalization for preschool-aged children can induce anxiety, as they are separated from their family environment and their daily routines.

According to 2020 data from the WHO, 4–12% of pediatric patients in the United States experience stress while undergoing hospital treatment. Similar stress is observed among pediatric patients in Germany, while in Canada and New Zealand, 4–10% of pediatric patients experience stress during their hospital stay. This occurs because the children feel excessive worry and restlessness (Bintang et al., 2023). According to data from the Ministry of Health of the Republic of Indonesia (2020), more than 58% of the total child population in Indonesia has required hospital care. Furthermore, data from Statistics Indonesia (Badan Pusat Statistik/BPS) indicates that hospitalizations among children in Indonesia increased by 19% in 2020 (Statistics Indonesia, 2020).

In this study, a play therapy intervention—specifically, collage-making—is used to reduce anxiety levels in children undergoing hospitalization. The term "collage" is derived from the French word "coller," meaning "to glue" or "to stick." Collage is a technique that involves adhering various materials—such as paper, fabric, glass, or metal—onto a surface. By combining these diverse elements within a single frame, a new work of art is created. In essence, a collage is an artistic composition formed by affixing various materials together to create a unified piece (Husna et al., 2021). Based on the background information provided above, the researcher intends to conduct a study titled "The Effect of Collage Play Therapy on Anxiety Levels in Hospitalized Children in the Bougainville Ward at Dr. Soeroto Regional General Hospital (RSUD), Ngawi."

Methods

This study employs a pre-experimental design with a one-group pre-test and post-test approach. Data collection begins with a pre-test (via a questionnaire) administered before the intervention, followed by the intervention itself, and concludes with a post-test (via the same questionnaire) to analyze the effect of collage-making play therapy on the anxiety levels of

preschool-aged children (3–6 years old) undergoing medical care in the Bougenville Ward at Dr. Soeroto Regional Public Hospital (RSUD), Ngawi.

The study population consists of preschool-aged children (3–6 years old) whose parents consented to their participation as respondents between November 2024 and February 2025, totaling 112 children. The sample comprises 20 preschool-aged children (3–6 years old) recruited during the period of January–February 2025. Sampling was conducted using quota sampling, where individuals from the population meeting the inclusion criteria were selected until the desired sample size was reached. Data analysis utilizes a non-parametric test, specifically the Wilcoxon Signed-Rank Test (Nursalam, 2013). A significance level of 0.05 was applied; results are considered significant if the p-value ≤ 0.05 and non-significant if the p-value > 0.05.

Result and Discussion

The research results consist of general data and specific data. General data includes information on the history of hospital admissions and the gender of the subjects. Specific data covers the anxiety levels before and after play therapy, as well as the effect of collage-making play therapy on the anxiety levels of hospitalized children in the Bougenville Ward at Dr. Soeroto Regional Public Hospital (RSUD), Ngawi.

Table 1 Frequency distribution of respondents by gender in the Bougenville Ward at Dr. Soeroto Regional Public Hospital, Ngawi, during January–February 2025

Gender	Frequency	Percentage
Male	8	40
Female	12	60
Total	20	100

Source: Primary data, 2025

Table 1 shows that the majority (60%) of the respondents are female.

Table 2 Frequency distribution of respondents by history of hospital admission in the Bougenville Ward at Dr. Soeroto Regional Public Hospital, Ngawi, during January–February 2025

History of Hospital Admission	Frequency	Percentage
First-time Admission	10	50
Subsequent Admission	10	50
Total	20	100

Source: Primary data, 2025

Table 2 shows that respondents who were admitted for the first time and those who were readmitted (subsequent admission) each account for half (50%) of the total number of respondents.

Table 3 Children's anxiety levels before the intervention

Anxiety Level	Frequency	Percentage
Moderate	2	10
Severe	14	70
Very severe	4	20
Total	20	100

Source: Primary data, 2025

Table 3 shows that a small proportion of respondents (10%) fall into the moderate anxiety level category, the majority (70%) fall into the severe anxiety level category, and a small proportion (20%) fall into the very severe anxiety level category.

Table 4 Changes in children's anxiety levels after the intervention

Change in Anxiety Level	Frequency	Percentage
Changed	13	65
Unchanged	7	35
Total	20	100

Source: Primary data, 2025

Table 4 shows that for the majority of respondents (65%), the children's anxiety levels changed following the intervention.

Table 5 Children's anxiety levels after the intervention

Anxiety level before intervention	Frequency	Percentage	Anxiety level after intervention	Frequency	Percentage
Moderate	2	10	Mild	1	5
			Moderate	1	5
Severe	14	70	Severa	6	30
			Moderate	8	40
Very severe	4	20	Severe	4	20
Total	20	100		20	100

Source: Primary data, 2025

Table 5 shows that, prior to the intervention, a small proportion of respondents (10%) were at a moderate anxiety level. Following the intervention, a small proportion (5%) were in the mild anxiety category, while another small proportion (5%) remained in the moderate anxiety category. Regarding those with severe anxiety before the intervention (70%), the results after the intervention show that nearly half of the respondents (30%) remained in the severe anxiety category, while another portion (40%) shifted to the moderate anxiety category. For those with very severe anxiety before the intervention (20%), the results after the intervention show that a small proportion (20%) were in the severe anxiety category.

Table 6 Cross-tabulation of anxiety levels after the intervention by hospitalization history

Change in Anxiety Level	Hospitalization History				Total
	First-time Admission		Subsequent Admission		
	Frequency	Percentage	Frequency	Percentage	
Unchanged	5	50	2	20	7
Berubah	5	50	8	80	13
Total	10	100	10	100	20

Source: Primary data, 2025

Table 6 shows that half (50%) of the respondents who were hospitalized for the first time experienced no change in their anxiety level, while the other half (50%) experienced a change. Furthermore, a small portion (20%) of respondents receiving follow-up care experienced no change, while the majority (80%) experienced a change.

Table 7 Cross-tabulation of anxiety level by gender

Change in Anxiety	Gender				Total
	Male		Female		
	Frequency	Percentage	Frequency	Percentage	
No Change	3	38	4	33	7
Changed	5	63	8	67	13
Total	8	100	12	100	20

Source: Primary data, 2025

Table 7 shows that nearly half (38%) of the male respondents experienced no change in their anxiety level, while the majority (63%) experienced a change. Similarly, nearly half (33%) of the female respondents experienced no change, while the majority (67%) experienced a change. Analysis of the Effect of Collage Play Therapy on Children in the Bougenvil Inpatient Ward at Dr. Soeroto Regional General Hospital (RSUD), Ngawi. Before analyzing the data to test the research hypothesis, data processing preparations—including tabulation and coding—were carried out; full details are provided in the appendix. The results of the data analysis, performed using the SPSS for Windows software, are as follows:

Table 8 Results of the Wilcoxon Signed-Rank Test

Ranks				
		N	Mean Rank	Sum of Ranks
Posttest Anxiety Category - Pretest Anxiety Category	Negative Ranks	13[a]	7,00	91,00
	Positive Ranks	0[b]	,00	,00
	Ties	7[c]		
	Total	20		

a. Posttest Anxiety Category < Pretest Anxiety Category
b. Posttest Anxiety Category > Pretest Anxiety Category
c. Posttest Anxiety Category = Pretest Anxiety Category

Table 8 indicates a decrease in anxiety levels among 13 respondents, as shown by the "Negative Ranks" value. Meanwhile, 7 respondents showed no decrease in their anxiety levels, as indicated by the "ties" value. The significance of the reduction in anxiety levels, used to test the hypothesis, is presented as follows:

Test Statistics[a]	
	Posttest Anxiety Category - Pretest Anxiety Category
Z	-3,606[b]
Asymp. Sig. (2-tailed)	,000

a. Wilcoxon Signed Ranks Test
b. Based on positive ranks.

Table 9 shows the results of the Wilcoxon Signed-Rank Test, with an Asymp. Sig. (2-tailed) value of 0.000. Since 0.000 < 0.05, it can be concluded that H1—which posits that collage-based play therapy influences the anxiety levels of preschool-aged pediatric patients in the Bougenville Ward at Dr. Soeroto Regional General Hospital (RSUD), Ngawi—is accepted.

Children's Anxiety Levels Prior to Collage Play Therapy in the Bougenvil Inpatient Ward at Dr. Soeroto Regional Public Hospital (RSUD), Ngawi

An assessment of children's anxiety levels prior to the intervention revealed that, among the 20 respondents, a small proportion (10%) experienced moderate anxiety, the majority (70%) experienced severe anxiety, and a small proportion (20%) experienced very severe anxiety.
These findings suggest that hospitalization—receiving medical care in a hospital setting—acts as a crisis point that increases stress for school-aged children. As noted by Mendri (2021), hospitalization represents a crisis state for a child who is ill and undergoing medical treatment. In such a situation, the child's defense mechanisms attempt to adapt to a new and unfamiliar environment—the hospital—which can serve as a stressor for the child, as well as for their parents and other family members.

This occurs because illness in preschool-aged children is a stressful and frightening experience. Hospitalization can trigger anxiety, as children may feel they have lost a safe, affectionate, and enjoyable environment. Furthermore, preschool-aged children are separated from their home, their toys, and their peers, which leads to distress and stress. Additionally, Hawari (2001, as cited in Mendri, 2021) points out that preschool-aged children often feel constrained during hospitalization due to limitations placed on their activities; they may perceive these restrictions as a form of punishment, leading to feelings of shame, fear, and anxiety.

On the other hand, hospitalization can also foster positive psychological changes and provide children with opportunities for social acceptance (Wong, as cited in Damanik & Sitorus, 2019). Furthermore, the researchers found that the role of immediate family—especially parents—

is crucial in reducing a child's anxiety levels during hospitalization. Parents who are attentive and capable of explaining the situation to their child with affection are more effective at calming the child than parents who are preoccupied with their own affairs. Among the respondents who exhibited maladaptive coping mechanisms—such as temper tantrums and aggression—it was observed that their parents tended to be harsh, indifferent, and more inclined to use electronic gadgets than to engage in conversation with their children. Therefore, while stress during hospitalization stems from various factors, these observations suggest that the role of parents is a significant determinant of a child's anxiety level.

Children's Anxiety Levels Following Collage Play Therapy in the Bougenvil Inpatient Ward at Dr. Soeroto Regional General Hospital, Ngawi

The children's anxiety levels following the intervention indicate that for the majority of respondents (65%), there was a change in their anxiety levels after the intervention was administered. Thus, it is evident that, qualitatively, there was a reduction in children's anxiety levels following the implementation of collage play therapy. This aligns with the views of Hayati, S. N., & Putro, K. (2021) and Wong (as cited in Damanik & Sitorus, 2019)—paraphrased by the researcher—which suggest that play is an activity engaged in for pleasure, as well as a means to express emotions, achieve relaxation, and provide a distraction from feelings of discomfort. Consequently, through play therapy, children are able to release the fear and anxiety they are experiencing.

Collage play therapy is highly effective for redirecting feelings of anxiety, sadness, fear, and guilt. As an intervention to reduce stress, anxiety, and uncooperative behavior, collage play therapy helps children learn to recognize colors, builds self-confidence, and develops fine motor skills. This prevents children from becoming easily bored or anxious during hospitalization; furthermore, the therapy encourages finger movements for pasting, as well as the coordination of hand and eye movements (Husna et al., 2021).

Moreover, observations made by the researcher during the play therapy sessions revealed that, although many children were initially fearful, all respondents exhibited a positive response once the play process began. Several respondents who were initially restless or prone to tantrums gradually became calmer. These observations also highlight that support from parents and close caregivers—encouraging children to try new things and navigate new social environments—is a crucial determining factor. In conclusion, the findings of this study support and reinforce existing theories regarding the benefits of play in reducing anxiety levels among preschool-aged children.

The Effect of Collage Play Therapy on Anxiety in Preschool-Aged Children During Hospitalization in the Bougenvil Ward at Dr. Soeroto Regional General Hospital (RSUD), Ngawi

A cross-tabulation of anxiety levels following the intervention, categorized by hospitalization history, reveals that half (50%) of the respondents who were hospitalized for the first time showed no change in their anxiety levels, while the other half (50%) experienced a change. Conversely, among respondents with a history of prior hospitalization, a small minority (20%) showed no change, while the vast majority (80%) experienced a change.

This finding aligns with Supartini (cited in Mandri, 2021), who suggests that preschool-aged children who have previously experienced good and pleasant hospital care tend to be more cooperative with nurses and doctors. Furthermore, an available support system helps preschool-aged children adapt to the hospital environment during their stay. Preschoolers typically seek support from those closest to them, such as parents, siblings, or peers. This explains why a larger proportion of respondents with a history of prior hospitalization experienced a positive shift in their anxiety levels compared to those undergoing hospitalization for the first time.

A cross-tabulation of anxiety levels by gender shows that nearly half (38%) of the male respondents experienced no change in their anxiety levels, while the majority (63%) did. Similarly, nearly one-third (33%) of the female respondents showed no change, while the majority (67%) experienced a change.

Consistent with these findings, Saputro (2017) states that gender is a factor influencing anxiety in preschool-aged children, noting that girls tend to experience higher levels of anxiety than boys when undergoing hospital care. Although some experts suggest there is no significant relationship between gender and anxiety levels, observations made by the researcher during the study revealed that nearly all female children exhibited high levels of anxiety. The table further indicates that anxiety levels among female children underwent a significant change following play therapy. Based on the researcher's observations, girls were more active and emotionally engaged in the play therapy, which effectively reduced their anxiety levels.

The results of the Wilcoxon Signed-Rank Test indicate a decrease in anxiety levels among 13 respondents, as reflected in the "Negative Ranks" value. Meanwhile, 7 respondents did not experience a decrease in anxiety levels, as indicated by the "ties" value.

Regarding statistical significance, the Wilcoxon Signed-Rank Test yielded an Asymp. Sig. (2-tailed) value of 0.000. Since $0.000 < 0.05$, the alternative hypothesis (H1)—which posits that collage-making play therapy influences the anxiety levels of preschool-aged pediatric patients in the Bougenville Ward at Dr. Soeroto Regional General Hospital (RSUD), Ngawi—is accepted.

These findings are supported by Familiani (2019), who notes that collage-making helps children practice concentration through the act of pasting materials. Furthermore, this activity requires both concentration and hand-eye coordination—a combination that is highly beneficial for stimulating brain growth during a child's developmental stages. Another advantage is that it helps children learn to recognize shapes and colors as they complete their collages.

Play therapy can provide an outlet for stress and tension, allow children to safely explore and test potentially frightening situations, and facilitate both verbal and non-verbal communication regarding their needs, fears, and desires. The intended outcomes of play therapy include supporting normal growth and development during illness, enabling children to express their feelings, wishes, fantasies, and ideas, fostering creativity, and helping them adapt to the anxiety associated with the hospital treatment process.

A child's fine motor development is closely linked to play; to foster these skills, children can be provided with engaging activities that encourage enthusiastic learning (Prihatini, 2023). The success of play therapy in promoting cooperative behavior during hospitalization depends on selecting activities that align with the child's specific stage of growth and development, ensuring the child remains genuinely interested in the play provided. A child's interest in the types of play provided indicates that the child is capable of managing the stressors experienced while hospitalized and when facing a new hospital environment (Pramesti et al., 2016).

Conclusion

The conclusion drawn from the study titled "The Effect of Collage Play Therapy on Anxiety Levels in Hospitalized Children in the Bougainvillea Ward at Dr. Soeroto Regional General Hospital (RSUD), Ngawi" is as follows:

1. Among the 20 respondents, prior to the administration of collage play therapy, a small proportion (10%) exhibited moderate anxiety, the majority (70%) experienced severe anxiety, and a small proportion (20%) showed very severe anxiety.
2. Following the collage play therapy, the anxiety levels of the majority (65%) of the 20 respondents showed a change.
3. The Wilcoxon Signed-Ranks Test yielded an Asymp. Sig. (2-tailed) value of 0.000. Since $0.000 < 0.05$, the alternative hypothesis (H1) is accepted, indicating that collage play therapy has an effect on the anxiety levels of preschool-aged children undergoing hospitalization in the Bougainvillea Ward at Dr. Soeroto Regional General Hospital, Ngawi.

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