



THE EFFECT OF COLORING PLAY THERAPY ON ANXIETY LEVELS IN CHILDREN DURING HOSPITALIZATION

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ABSTRACT

Hospitalization can be an anxiety-inducing experience for preschoolers due to the unfamiliar environment and frightening medical procedures. One intervention that can help reduce anxiety is coloring. This study aims to determine the effectiveness of coloring play therapy on children's anxiety levels during hospitalization. The method used is a case study, with a pediatric nursing care approach, applying Evidence-Based Nursing. The research subjects were taken using a purposive sampling method and the results obtained were five preschool-aged children (4-6 years old) who were treated in the Anggrek Ward of Dr. Soeratno Gemolong Sragen Hospital, from June 14-20, 2025. Anxiety levels were measured using the Faces Anxiety Scale (FAS) with a score range of 0-4 through observations and interviews with parents before and after the intervention. Data were analyzed using descriptive analysis with results showing that before the intervention, children experienced anxiety with FAS scores between 1-3, characterized by crying, fussiness, and fear of medical procedures. After coloring therapy, anxiety levels decreased in all subjects, with FAS scores dropping to 0-1. Children appeared calmer and more cooperative during the intervention. The study concluded that coloring play therapy was effective in reducing anxiety levels in preschool-aged children during hospitalization.

Keywords: anxiety; coloring play therapy; hospitalization; pre-school children

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INTRODUCTION

Hospitalization is a condition in which a sick child is treated in a hospital until they recover and are allowed to return home (Sakit, 2024). Hospitalization can cause children to experience anxiety and stress due to temporary separation from friends or loved ones, fear of bodily pain, and pain that the child has never experienced before (Ayu et al., 2024).

In Indonesia, the prevalence of anxiety in children due to hospitalization is still quite high; around 60-80% of children will experience anxiety during hospitalization. The level of anxiety that arises varies because it is influenced by certain factors (Pujianti et al., 2025). Behaviors that arise in children during hospitalization include aggression, anger, and rebelliousness, as well as an unwillingness to cooperate with doctors or nurses during procedures, and a reliance on parents (Yazia, 2024). The hospital environment can affect the physical and mental health of children the mental impact that arises can be in the form of anxiety (Arifah & Wijayanti, 2025). Anxiety is an emotional manifestation of a person's subjective experience that triggers anxiety responses such as nervousness, restlessness, tension, worry, and other responses (Fitra Herayeni, D., Immawati, 2022). Hospitalization triggers both physiological and psychological stressors in children and parents. If not addressed, physiological responses that may arise can include increased heart rate, increased breathing patterns, decreased appetite, dizziness, tremors, and sleep disturbances (Amalia et al., 2024).

One way to minimize stress in children is through play (Fitra Herayeni, D., Immawati, 2022). Playing while a child is hospitalized can be a form of entertainment that reduces stressors, helps children cope with unfamiliar situations, allows them to express emotions, and builds rapport with healthcare professionals, thereby facilitating the care process (Futri & Risdiana, 2023). Coloring therapy is a game that aligns with hospital principles, and, psychologically, it can help children express anxiety, fear, sadness, stress, and other emotions (Sari et al., 2024). Coloring play therapy can be an effective game choice for children during hospitalization because it is enjoyed by many, is non-tiring, and can be done in their beds. The required time is flexible, and this therapy can be repeated (Munir, 2023).

Based on observations conducted in the Anggrek ward of Dr. Soeratno Gemolong Sragen Hospital, most children experience anxiety due to hospitalization, resulting in various responses such as crying, tantrums, refusing treatment, and feeling afraid when seeing doctors and nurses. The purpose of this case study is to apply Evidence-Based Nursing coloring play therapy to reduce anxiety levels in children during hospitalization.

METHOD

This scientific paper is a case study by applying Evidence-Based Nursing, namely coloring play therapy in children who experience anxiety due to hospitalization. This intervention was given at RSUD Dr. Soeratno Gemolong Sragen Hospital in June 2025. Subjects were taken using a purposive sampling technique, and the results obtained were 5 preschool children, ranging from 4-6 years old, who met the inclusion and exclusion criteria. The inclusion criteria in this study were preschool children aged 3-6 years who were hospitalized, patients with anxiety, patients willing to receive intervention with informed consent signed by their parents, patients in stable condition, and patients without disorders in both upper extremities. The exclusion criteria in this study were patients receiving total care, patients without parental permission, patients with disorders of both upper extremities, and patients with special needs. Data were analyzed using descriptive analysis, and the instrument used to measure the subjects' anxiety in this study was the FAS (Facial Anxiety Scale), with values of 0 indicating no anxiety, 1 mild anxiety, 2 moderate anxiety, 3 severe anxiety, and 4 very severe anxiety.

RESULT

Table 1.
Anxiety levels before and after coloring play therapy intervention

No	Day/Date	Respondents	Anxiety Level (FAS)		
			Before Therapy	After Therapy	Explanation
1	Saturday, June 14, 2025	An. A	2	0	Anxiety scale decreased by 2 levels
2	Saturday, June 14, 2025	An. H	3	1	Anxiety scale decreased by 2 levels
3	Thursday, June 19, 2025	An. D	2	0	Anxiety scale decreased by 2 levels
4	Friday, June 20, 2025	An. Z	2	0	Anxiety scale decreased by 2 levels
5	Friday, June 20, 2025	An. C	1	0	Anxiety scale decreased by 1 level

The results of the assessment conducted on the five pediatric patients showed that the first patient, An. A, aged 4 years, was diagnosed with moderate dehydration and hyperpyrexia on the third day. The main complaint of the child during the assessment was that the patient's mother said that her child's body felt hot, the child rarely wanted to drink water, the frequency of eating decreased, only finishing half the portion, and the patient was always fussy and cried, especially when seeing the doctor or nurse when they were going to perform the procedure. Anxiety assessment in children

using the FAS (Facial Anxiety Scale) showed that An. A anxiety level was at a score of 2, which is moderate anxiety.

The second patient is An. H, 4 years old, with a diagnosis of Thrombocytopenia on the third day. The patient's mother said that her child's body temperature fluctuates, the patient is often fussy, and always asks to go home because he doesn't feel at home in the hospital. During the assessment, the patient was seen crying hysterically when he saw the nurse who was going to perform the procedure. The patient felt afraid of being injected and given medication. Anxiety assessment in children using the FAS (Facial Anxiety Scale) showed that An. H anxiety level was at a score of 3, which is severe anxiety.

The third patient is An. D, aged 5 years, with a medical diagnosis of Bronchopneumonia on the second day. The patient's main complaint was a cough and cold, the patient's mother said that her child had a cough with phlegm for 5 days and had not recovered, the patient only ate half of his meal during the hospitalization period, during the assessment the child looked fussy, crying and asking to be held by his mother continuously, the patient felt afraid when seeing the nurse who would administer the nebulizer. Anxiety assessment in children using the FAS (Facial Anxiety Scale) showed that An. D anxiety level was at a score of 2, which is moderate anxiety.

The fourth patient is An. Z, aged 5 years, with a diagnosis of GEA (Acute Gastroenteritis) on the second day. The patient's main complaint was diarrhea for 2 days, the patient's mother said that her child often vomited while eating and drinking, never finished his portion of food, when the child looked fussy, cried and asked to be held by his mother continuously, the patient looked a little scared and spoke briefly to the nurse when the medication was about to be administered. Anxiety assessment in children using the FAS (Facial Anxiety Scale) showed that An. Z anxiety level was at a score of 2, which is moderate anxiety.

The fifth patient is An. C aged 6 years with a medical diagnosis of Frequent Vomitus on the second day. The main complaint felt was that the patient continued to feel like vomiting while eating and drinking, the patient's grandmother said that her grandson's body temperature felt very hot, during the hospitalization period he only ate half a portion of food because his grandson felt nauseous after eating and drinking, when the patient was assessed he looked indifferent and always turned his face away from the nurse, the patient looked a little afraid when the nurse was going to give medicine through an IV. Anxiety assessment in children using the FAS (Facial Anxiety Scale) showed that An. C anxiety level was at a score of 1, which is mild anxiety.

DISCUSSION

Hospitalization can be a stressful and anxiety-inducing experience for preschool-aged children, as they are placed in an unfamiliar environment, separated from their daily routines, and faced with various medical procedures they have never experienced before. Children at this stage of development still have a limited understanding of illnesses and treatment procedures, and therefore tend to interpret medical procedures as frightening. This leads to responses such as crying, fussiness, refusal of treatment, restlessness, and dependence on parents (Aliyah & Rusmariana, 2021). This is consistent with research showing that preschool-aged children are highly susceptible to anxiety during hospitalization due to their inability to adapt to the hospital environment and a lack of understanding of medical procedures (Ginting et al., 2024). The Ministry of Health also states that hospitalization can trigger psychological impacts such as fear, anxiety, and refusal of medical procedures if not handled appropriately (Kemenkes, 2025).

Based on the results of a case study conducted on five preschool-aged children in the Anggrek Ward of Dr. Soerarno Gemolong Sragen Hospital, all subjects showed signs of anxiety before being given coloring play therapy intervention. This was indicated by crying, fussing, and fearful behavior

when nurses or doctors were present, as well as refusal of medical procedures. The anxiety score before the intervention was in the range of 1-3 based on the Faces Anxiety Scale (FAS). After being given coloring play therapy, there was a decrease in anxiety levels in all subjects, with FAS scores becoming 0-1. In detail, An.A experienced a decrease in score from 2 to 0, An.H from 3 to 1, An.D from 2 to 0, An.Z from 2 to 0, and An.C from 1 to 0. In addition to the decrease in scores, parents subjectively reported that their children became calmer, did not cry during medical procedures, and that their children's attention was diverted to coloring activities. Objectively, the children appeared more cooperative, focused on activities, and showed no signs of excessive anxiety.

These results indicate that coloring play therapy can provide an effective distraction effect on children's fears. When children focus on coloring, their attention is diverted from the stressful environment and the upcoming medical procedure (Tahir et al., 2023). Play therapy also helps children express emotions and reduce psychological tension, making them feel more comfortable after treatment (Dewi et al., 2024). This is consistent with the view that play therapy is an effective approach to reducing children's anxiety during hospitalization, as it can increase a sense of security, facilitate adaptation to the hospital environment, and enhance cooperation between children and healthcare professionals (Kumalasari et al., 2023).

A significant reduction in anxiety scores in most subjects, reaching a score of 0, indicates that coloring play therapy is an effective, simple, and easy-to-implement non-pharmacological intervention (Aryani et al., 2021). Coloring activities provide opportunities for children to express feelings, channel energy positively, and create a more pleasant atmosphere during treatment (Nurjanah et al., 2021). Previous research also shows that coloring therapy can reduce anxiety about hospitalization in preschool children by providing a distraction, increasing comfort, and helping children adapt to the hospital environment (Fitra Herayeni, D., Immawati, 2022).

The findings in this case study also align with research by Sudirman et al. (2023), which showed that play therapy and coloring pictures of fruit and animals significantly reduced anxiety levels in preschool-aged children during hospitalization. The study explained that coloring activities can increase feelings of happiness, reduce emotional tension, and make children more receptive to medical treatment. Similar results were also reported by Sukani et al. (2025), who found that play therapy coloring was effective in reducing anxiety in preschoolers undergoing hospitalization by shifting their focus from fear to enjoyable activities.

Coloring activities are simple, low-energy, and can be done in bed, and are enjoyed by almost all children (Mariyam et al., 2022). Several studies have also shown that consistent play therapy can help children adapt to the hospital environment, reduce the trauma of hospitalization, and improve relationships between children and healthcare professionals (Marfuah & Sofiah, 2021).

Thus, based on the results of this case study and supported by various previous studies, coloring play therapy has been proven effective as a non-pharmacological intervention in reducing anxiety levels in preschool-aged children during hospitalization. This intervention can be used as a nursing approach that is easy to implement, safe, and positively impacts children's psychological well-being during hospitalization.

CONCLUSION

Based on a case study of five preschool-aged children (4-6 years old) hospitalized in the Anggrek Ward of Dr. Soeratno Gemolong Sragen Hospital, it can be concluded that coloring play therapy is effective in reducing children's anxiety levels during treatment. Before the intervention, all children showed signs of anxiety such as crying, fussiness, fear of health workers, and refusing medical procedures, with Faces Anxiety Scale (FAS) scores in the range of 1-3. After being given coloring

play therapy, there was a decrease in anxiety in all subjects, with FAS scores becoming 0-1, with most even reaching a score of 0.

Subjectively, parents reported that their children were calmer, cried less during procedures, and were more easily distracted. Objectively, their children appeared more relaxed, focused on coloring activities, and were more cooperative during medical procedures. This suggests that play therapy can provide distraction, increase comfort, and help children adapt to the hospital environment. Thus, coloring play therapy can be used as a simple, safe, and easy-to-implement non-pharmacological intervention by nurses to reduce anxiety about hospitalization in preschool children.

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