



The Effect of Play Therapy on the Level of Anxiety Due to Hospitalization in Pre-School Children at Prof. Dr. H. Aloei Saboe Hospital, Gorontalo City

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ABSTRACT

Preschool-aged children who are undergoing hospitalization can cause anxiety caused by changes in atmosphere, pain felt by children and environments that are unfamiliar to them. So it is necessary to take quick action to overcome this so that children become more comfortable and cooperative with medical personnel so that the treatment process is not hampered, namely by playing therapy coloring pictures. The purpose of this study was to determine the effect of play therapy on the level of anxiety due to hospitalization in preschool-age children at Prof. Dr. H. Aloei Saboe Hospital, Gorontalo City. Types of quantitative research. The research design was done with the Pre-Experimental method with the One group pre-post test approach. A sample of 22 children was selected using the Purposive Sampling technique. The instruments used were Depression Anxiety Stress Scales (DASS) and SOP therapy to play coloring pictures. Statistical test using paired t-test. The results obtained were the average anxiety level before 17.82 and after 10.68, and a significant value of 0.000 ($p < 0.05$). It was concluded that there was an effect of play therapy on the level of anxiety due to hospitalization in preschool-age children at Prof. Dr. H. Aloei Saboe Hospital, Gorontalo City.

INTRODUCTION

Children are individuals who have specific needs that are different from adults. This difference in needs is related to the phases that children will go through in their growth and development (Anggeriyane, et al., 2023). Preschool children are children between the ages of 3-6 years old where at this age children still lack socialization with others and cannot take care of themselves such as eating, bathing, and wearing clothes (Syarifah, 2022). During this time, children experience growth and development which is characterized by physical development, improving skills and thinking processes. But just like adults, children can also get a disease and need hospitalization for diagnosis and treatment of the disease.

According to the World Health Organization (Rahmawati, 2020), almost 80% of children are treated in hospitals. The National Centre for Health Statistics estimates that 3-5 million children under the age of 15 undergo hospitalization each year. The number of sick children in Indonesia who are hospitalized is quite high, which is 15.26%, which is shown by the constant filling of children's rooms in both government and private hospitals. The rate of child illness in Indonesia based on the National Health Survey (Susenas) in urban areas is 25.8% according to the age group 0-4 years, as much as 14.91% age 5-12 years, 13-15 years old around 9.1%, 16-21 years old age 8.13%. The pain rate of children aged 0-21 years when calculated from the total population is 14.44%. UNICEF says that children can feel anxious because of many things, one of which is related to hospitalization, at the age of 6 months-3 years children are often anxious due to separation, as well as preschool children anxiety can arise due to something scary (UNICEF, 2022).

Gorontalo Province, there are various conditions that can cause children to undergo hospitalization. Based on data from the Gorontalo Provincial Health Office, data was obtained in 2015 that the number of sick children under five in Gorontalo Province was 45187 or 45.1% (Gorontalo Provincial Health Office). The Basic Health Research Survey (2018) shows that the average number of children hospitalized in Indonesia for anxiety is 2.8%

of the total 82,666 children. The number of preschool hospitalizations in Indonesia is 2.1 million or about 8%. And on average, they experience mild to moderate levels of anxiety (Risksedas, 2018)

Hospitalization is a situation where a person is in a condition that requires treatment in the hospital to overcome or alleviate his pain. Hospitalization in children can cause anxiety and stress which is caused by separation, loss of control, fear of pain in the body, and pain where the condition has never been experienced before. Physiological responses that can arise due to unresolved anxiety are such as changes in the cardiovascular system in the form of palpitations, increased heart rate, changes in breathing patterns that are faster, decreased appetite, nervousness, dizziness, tremors, to insomnia, cold sweats, face becoming red, restless, fussy, children are easily surprised, crying, rebelling, evading and withdrawing, impatient, tense. Be aware of the environment, hospitalization will also have an impact on the development of children which will also result in disruption of the treatment process (Setiawati & Sundari, 2019). Hospitalization is one of the causes of anxiety.

Anxiety in children is a psychological response that arises because the child feels threatened by something, where a child who undergoes hospitalization will be faced with a frightening experience as a result of a medical procedure (Atawatun et al., 2021). Children who undergo hospitalization will feel anxiety and stress that can hinder the treatment process, this is caused by changes in atmosphere, pain felt by children, and environments that are unfamiliar to children (Sari & Batubara, 2017) In preschool children, hospitalization can cause negative changes, this is because social interaction in preschool-age children is wider so that children are able to show fear and threat attitudes when facing New problems.

Quick action is needed to overcome this so that children become more comfortable and cooperative with medical personnel so that the treatment process is not hampered and play therapy is one of the interventions that can be done. Play is one of the needs of children. The stage of development that is undergone cannot be separated from playing. When playing, children not only exert their physical energy but also involve all their emotions, feelings and thoughts. Similarly, in sick children, play is a medium of psychotherapy because this activity can make children overcome various kinds of unpleasant feelings in him Play therapy can help children master the anxiety and conflicts they face (Nur Oktavia Hidayati et al., 2021)

Play therapy is one of the ways that efforts can be made to improve fine motor development in children, this statement is in accordance with research conducted by Monalisa, in (2017) where she stated that the provision of play therapy is able to hone fine motor skills and improve cognition in children, besides that play therapy is an activity where children can perform a skill, give expression to their thoughts, become a creative person, and prepare themselves to play roles and behave maturely. Play therapy has also been identified as an effective intervention to prepare for children who will undergo hospitalization, by providing coping, providing an understanding of the procedure, and preparing procedures to reduce pain and stress experienced. For this reason, the right type of game tools are given to children such as puzzles, legos, coloring pictures, story telling. One type of play therapy that preschoolers do is coloring pictures.

Coloring pictures is a creativity activity, where children will give several color strokes to a shape or image that suits the child's wishes, so that an art creation is created (Aryani et al., 2021). Coloring therapy can psychologically help children in expressing feelings of anxiety, fear, sadness, depression and emotions. (Suari, 2019). In addition, coloring pictures also has a positive impact on children who experience anxiety due to hospitalization, namely, children will feel relaxed because of activities that produce works of art and children can recognize images and choose colors that are suitable to be given to the images. This therapy is also able to divert the child's attention to actions or treatments that will be provided by the medical team that can cause trauma to the child (Reza & Idris, 2018).

A study that states that coloring pictures can reduce anxiety levels in children, according to (Aryani et al., 2021) states that playing with coloring pictures is a therapy that can be given to children who are hospitalized, by playing children will be free from the fear and stress experienced. In addition, play therapy can also make children more relaxed and forget the feelings of sadness, anger, and anxiety experienced when undergoing hospitalization.

In Arabic it is said that if something is anxious, it will move in its place. So it can be said that the form of anxiety is a change that is contrary to what Allah describes in His words in Qs Al Yusuf verse 86 Ya'qub replied: *"Verily, it is only to Allah that I complain of my distress and sorrow, and I know from Allah what you do not know."* The above verse explains that the anxiety that arises is often associated with worrying about situations that previously did not need to be worried. Anxiety disorder is considered to come from a self-change mechanism that is naturally chosen by living beings when faced with something threatening and dangerous. The anxiety experienced in this kind of situation conditions living beings to take defensive actions to avoid or reduce dangers and threats, being anxious to a certain degree can be considered part of a normal response to cope with everyday problems.

Based on the initial data collection survey conducted at the hospital. Prof. Dr. H. Aloei Saboe Gorontalo City precisely in the children's room on September 26, 2024 through observations obtained in the last two months from July to August 2024, as many as 572 pediatric patients were treated and the number of children aged 3-6 years was treated as many as 147 children. Based on the results of interviews with nurses in the children's room, they said that most children who are hospitalized will definitely experience stress, researchers also got data from children's room nurses, they said that children who are hospitalized often cry and feel scared when they see nurses

and doctors, children often refuse if they are given medication, and room nurses say that no one has ever done play therapy before. on the child's level of anxiety due to hospitalization.

RESEARCH METHODOLOGY

Research Design

This research is quantitative, with the research design using *the Pre-Experimental* research method with *the One Group Pre-Post Test Design* approach. This study revealed the causal relationship by involving one group of subjects. The subject group was observed before the intervention, then observed again after the intervention (Nursalam 2013).

Place and Time of Research

The research has been carried out in the children's room at Prof. Dr. H. Aloe Saboe Hospital, Gorontalo City. The research was carried out on February 25, 2025 – March 24, 2025

Data Analysis Techniques

Univariate Analysis

Univariate analysis is an analysis carried out on a variable. The forms are various, for example: frequency distribution, average, proportion, standard deviation, variance, median, mode, In this study analyzed the level of anxiety in children before and after play activities. All the characteristics of the respondents in this study such as: age, gender, and severe, moderate, and mild anxiety.

Bivariate Analysis

Bivariate analysis is an analysis of two variables (Swarjana, 2016). In this study, bivariate analysis was used to determine the effect of play therapy on reducing children's anxiety. At this stage, the analysis used is the paired sample analysis test T test.

H₀ = No effect of coloring play therapy on the level of anxiety of preschoolers due to hospitalization

H_a = There was an effect of giving picture coloring play therapy on the level of anxiety of preschoolers due to hospitalization.

RESULTS

Characteristics of Respondents

Table 1. Characteristics of Respondents

Characteristics	Frequency	Introduce yourself
Age	N	%
3-4 Years	15	68,2%
5-6 Years	7	31,8%
Total	22	100%
Gender		
Male	9	40,9%
Women	13	59,1%
Total	22	100%

Data Source 2025

Based on the frequency distribution table based on age in units of months, the most respondents were 36-48 months (3-4 years) as many as 15 respondents (68.2%) and the least respondents were 60-72 months (5-6 years), as many as 7 respondents (31.8) out of 22 respondents. And the gender frequency distribution table of 22 respondents was obtained that the most gender in this study was female, which was as many as 13 respondents (59.1%).

Univariate Analysis

Univariate Pre-Test Anxiety Level

Table 2. Univariate Analysis of Pre-Test Anxiety Level

Anxiety Levels Before	Frequency (n)	Present(%)
Lightweight	2	9,1%
Medium	7	31,8%
Weight	13	59,1%
Total	22	100%

Data Source 2025

Based on the table above, from 22 respondents who conducted a univariate analysis of the level of anxiety before being given picture coloring therapy to preschoolers, there were 13 respondents in the Heavy category (59.1%) and 7 respondents in the Medium category (31.8%), and only 2 respondents in the mild anxiety category (9.1%).

Univariate Analysis of Post-Test Anxiety Level

Table 3. Univariate Analysis of Post-Test Anxiety Level

Anxiety levels After	Frequency (n)	Present(%)
Lightweight	19	86,4%
Medium	3	13,6%
Total	22	100%

Data source 2025

Based on the table above, from 22 respondents who were analyzed at the university, the level of anxiety after being given picture coloring therapy to preschool children, namely 19 respondents (86.4%) and 3 respondents (13.6%) in the moderate category.

Bivariate Analysis

Data Normality Test

Table 4. Normality Test Results Data before and after administration of play therapy coloring pictures with anxiety levels

Variable	Groups	N	Sig
Anxiety	Before	22	.186
	After	22	.140

Data source 2025

The results of data analysis with the shapiro wilk test on the average frequency of anxiety levels before being given picture coloring play therapy obtained a value of $p = .186$ ($p > 0.05$) which means that the data is normal, and the frequency of anxiety level after being given picture coloring play therapy obtained a value of $p = .140$ ($p > 0.05$) which means that the data is normally distributed.

The effect of giving play therapy coloring the picture with anxiety levels.

Bivariate Analysis

Table 5. Bivariate Analysis The effect of providing play therapy coloring pictures with anxiety levels

Variable	N	Red	Mean difference	SD	P Value
Anxiety levels Before	22	17.82	7,13	2.630	
Sesudalh's anxiety level	22	10.68	7,13	1.644	

Based on the table above, it shows that the average frequency of anxiety levels before being given coloring play therapy in preschool-age children at Prof. Dr. H. Aloei Saboe Hospital obtained a mean value of 17.82 and after being given picture coloring play therapy in preschool-age children at Prof. Dr. H. Aloei Saboe Hospital, a mean value of 10.68 was obtained, this shows that there is a difference in the decrease in anxiety levels between before and after the administration of coloring play therapy Figure 7.13. The results of the test using the paired t test on the comparison of the frequency of anxiety levels before and after being given coloring play therapy in preschool-age children at Prof. Dr. H. Aloei Saboe Hospital found a significant change with a value of $p=0.000$ ($p<0.05$), then it can be concluded that there is an Effect of Play Therapy on the Level of Anxiety Due to Hospitalization in Preschool Children at Prof. Dr. H. Aloei Saboe Kota Hospital Gorontalo.

DISCUSSION

Anxiety Level Due to Hospitalization in Preschool Children After Coloring Play Therapy at Prof. Dr. H. Aloei Saboe Hospital

Based on the results of the study, it was found that the level of anxiety of preschool-aged children after coloring play therapy was carried out with 19 respondents (86.4%) and moderate 3 respondents (13.6%), and none of the respondents experienced severe anxiety. The data showed that the anxiety level of the respondents changed after being given coloring play therapy because the majority of respondents had anxiety levels in the mild category, namely 19 respondents (86.4%). The condition of the respondents who experienced a decrease illustrates that coloring play therapy can reduce the level of anxiety due to hospitalization in children because play is an activity that can be done at all ages, especially in children that can describe children's physical, emotional, cognitive and communication activities to their social environment. One of the games that is suitable for preschool-age children is picture coloring play therapy because children are taught to improve their abilities in terms of liking and recognizing the colors and shapes around them through pictures and can be used as a medium of expression and therapy for children (Pasetya, 2020). Coloring play therapy has an effect on the level of cooperation because the cognitive and psychomotor function in preschoolers is play, even when receiving treatment in the hospital, the child must continue to play.

Picture coloring therapy is one of the activities that is in accordance with the principles of the hospital where psychologically, this activity can help children in expressing feelings of anxiety, fear, sadness, depression and emotions (Fitriani Arifin, 2018). Play therapy is very important for children's mental, emotional and well-being, such as the need to play does not stop when children are sick or children who are sick in the hospital (Hasibuan, 2019). One form of activity that can be done to overcome anxiety in children is through picture coloring therapy activities.

This study is related to Muhammad Idris' research in 2018 which showed that after play (coloring) therapy, the results of the majority of mild anxiety respondents were obtained from 6 (40.0%) children. This shows that there is a difference in the level of anxiety in pre-school children in the jasmine room of dr. Chasbullah Abdulmadjid Hospital, Bekasi City before and after being given coloring play therapy. Coloring play therapy makes the child unconsciously express sadness, anxiety, stress and make them feel happy again. Picture coloring therapy can lower anxiety levels in children and they more naturally express themselves through play and activities. Based on research, it is stated that there is a change in anxiety in preschoolers who experience hospitalization by doing coloring play therapy, children get entertainment or can express their feelings through coloring therapy so that children's anxiety is reduced.

Bivariate Analysis

The effect of play therapy on the level of anxiety due to hospitalization in pre-school children at Prof. Dr. H. Aloei Saboe Hospital

The results of the study obtained that the average level of anxiety of respondents before being given picture coloring play therapy was 17.82 and the average level of anxiety of respondents after being given coloring play therapy was 10.68, meaning that there was a significant difference between the level of anxiety due to hospitalization before and after picture coloring play therapy so that picture coloring play therapy had an effect on anxiety levels.

According to (Epifania 2018), the hospital environment, health services, and interaction with hospital staff are factors that affect anxiety. Children are afraid of health workers because they do not know what actions will be taken and children feel unfamiliar with health workers, so before taking action, children should be given information about the actions to be taken. Hospitalization is a planned or emergency reason that requires a child to stay in the hospital for treatment and treatment until he recovers. When the child is treated, the child will experience various events, such as aggressive behavior, crying, biting, and kicking. In addition, children use angry words to express their language, do not want to cooperate with health workers, and depend on parents according to some researchers, the event is an experience full of anger, sadness, and fear. guilt and anxiety (A. Pulungan et al., 2017).

Anxiety due to hospitalization that occurs in preschool children is a condition that can risk interfering with children's growth and development and having an impact on the healing process. Anxiety that is resolved quickly and well will make children more comfortable and cooperative with health workers so as not to hinder the nursing process. Play is one of the most important aspects of a child's life and the most effective tool to reduce stress and reduce anxiety in children. The need for play activities also does not stop when children are sick and have to undergo treatment in the hospital (Nurlaila, Wuri Utami, 2018).

Play therapy can make children release feelings of anger, sadness, or anxiety that previously felt difficult for the child to express these feelings. The child may have difficulty expressing feelings due to the intensity of the trauma experienced, or because of a lack of a support system that would allow the child to express his feelings. The final result of the play therapy activity provides a feeling of relief for the child (Aryani & Zaly, 2021). Coloring is one of the games that gives children the opportunity to express themselves freely. The use of coloring activities as a therapy is based on the assumption that coloring pictures is a form of communication with children who are experiencing illness, (Suparno, 2017).

This study is related to the research of Devi (2017) stating that the results of the analysis of this study were found that the P value of 0.000 ($p < 0.05$) which means that there is an effect of providing picture coloring play therapy on the anxiety level of preschoolers during hospitalization at Madiun City Hospital. Nurses can apply this coloring play therapy in an effort to reduce anxiety levels in preschoolers. This study is also in accordance with Linda Nur 2021 showing that the results of the paired T-test were obtained with a p value of $0.000 < 0.05$ so that it was concluded that there was an effect of picture coloring play therapy on the level of anxiety of preschool-age children due to hospitalization in the Asoka Room of Bangil Hospital, Pasuruan Regency (Linda Nur, 2021). Hospitalization in preschoolers can be a challenging experience, for both children and parents. Preschool-age children are at a critical stage of development, where they are highly dependent on parents and familiar environments. Admission to the hospital, with an unfamiliar environment, new people, and uncomfortable medical procedures, can cause a variety of stress and anxiety reactions in the child. Coloring pictures is a fun activity for preschoolers. Preschoolers have a high curiosity and love to explore their environment. This activity can give children a sense of pleasure and satisfaction. Picture coloring therapy can have a significant influence on reducing anxiety levels experienced by preschoolers who are undergoing hospitalization. Because coloring pictures is a form of creativity activity, where children are invited to give one or several color strokes to a shape or pattern of a picture, so that an artistic creation is created that is able to express mood, relieve tension and make children feel happy.

CONCLUSION

The level of anxiety before the treatment of coloring pictures in preschool children due to hospitalization at Prof. Dr. H. Aloei Saboe Hospital, Gorontalo City, was obtained with mild anxiety as many as 2 respondents (9.1%), moderate anxiety as many as 7 respondents (31.8%), and severe anxiety as many as 13 respondents (59.1%).

The level of anxiety after coloring therapy in preschool children due to hospitalization at Prof. Dr. H. Aloei Saboe Hospital, Gorontalo City, was obtained by 19 respondents (86.4%) and 3 respondents (13.6%) with moderate anxiety.

There was an effect of providing picture coloring play therapy on the level of anxiety due to hospitalization in preschool-age children at Prof. Dr. H. Aloe Saboe Hospital using a *paired t test* with a value of $p = .000$ ($p < 0.05$).

SUGGESTIONS

1. For Hospitals and the Nursing Profession

This research can later be a motivation for nurses related to the play therapy schedule made for preschoolers undergoing hospitalization

2. For the Next Researcher

The results of this study can hopefully be useful as additional basic data in future research, become reference material, add information and add to student literature studies on play therapy techniques on anxiety levels in preschool-aged children who are hospitalized.

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