

Coloring Therapy on Pictures can Reduce Hospitalization Stress in Pre-School Age Children

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ABSTRACT

Hospitalization of preschool children is a problematic condition experienced by children because it causes anxiety which can result in child care while in the hospital. The media is needed to divert feelings of anxiety experienced by preschool children to reduce anxiety during hospitalization. The design of this study is the Pretest Posttest Control Group Design. The sampling consisted of 32 preschool children divided into 16 control and 16 treatment groups. This study aimed to determine the effect of coloring play therapy on anxiety in preschool- aged children hospitalized at Mardi Waluyo Hospital, Blitar City. The results showed that in the control and treatment groups, $p < 0.05$ was obtained.

Keywords: preschool children, coloring, hospitalization, anxiety.

Background

The hospital is a new environment for preschool-aged children where they need to adapt during their treatment process (1). In sick children who are hospitalized, they will find challenges that must be faced, including dealing with separation problems, adjusting to the environment and people who care for them, dealing with other sick children, and nursing procedures and medicines they receive. These conditions make children afraid and anxious, so if they are not treated immediately, they will reject the care and treatment given. This situation will affect the length of the day of treatment, exacerbate the child's condition, and can even cause death in the child (2). Based on data from the Central Statistics Agency of East Java, it can be explained that preschool- age children are increasing yearly. Data for 2013 show that the number of preschool- aged children in East Java was 2,485,218, with a morbidity rate of 1,475,197, experiencing anxiety while undergoing treatment due to illness, as much as 85% (3).

Anxiety that occurs in preschool children due to hospitalization is a condition that can be at risk of disrupting the child's development and impacting the healing process. Media is needed to divert feelings of anxiety experienced by preschool children. To reduce the impact of anxiety due to the hospitalization process. Various methods can be used, including storytelling therapy, music therapy, comedy chart therapy, and play therapy, for example, playing games on gadgets, coloring, and playing with candles (3).

Play therapy used as a distraction technique by children while undergoing hospitalization is playing with coloring on pictures. The distraction technique follows the opinion of Wowling

(2013) that children can express their feelings by coloring pictures. Drawing or coloring pictures can give a feeling of pleasure because preschool-age children are very active and imaginative; children can continue to develop fine motor skills.

The anxiety level of preschool children before being given candle play therapy was highest at a very severe level of anxiety, with 18 respondents with a percentage of 90%. The anxiety level of preschool children after being given candle play therapy was highest at moderate levels of anxiety, namely with the number of respondents seven respondents with a percentage of 35%. There was an effect of candle play therapy on reducing anxiety levels in preschool-aged children who were being treated at Regional General Hospital dr. Soedarso Pontianak city (5).

The preliminary study conducted by researchers found that according to the statements of two staff at the Mardi Waluyo Hospital, Blitar City children who experience hospitalization often experience anxiety. The anxious children frequently cry, feel the mood, fear medical personnel, and refuse while carrying out medical procedures. The results of interviews with the patient's parents found that the child's reaction when experiencing hospitalization was to refuse and fear when medical action would be carried out, causing a crying response in children. From the interviews with nurses, information was also obtained that at Mardi Waluyo Hospital, there was no specific play therapy program to deal with anxiety due to hospitalization carried out by health workers. Play therapy is only carried out by Nursing Students who practice and have never done coloring play therapy on pictures. Based on this, researchers are interested in researching the effect of coloring play therapy on pictures on anxiety about the effects of hospitalization in preschool-aged children.

Methods

The design of this study was Quasi-Experimental with the Pretest Posttest Control Group Design approach. Samples were randomly selected and divided into two groups: the experimental group and the control group (6). This research was conducted at Mardi Waluyo Hospital, Nusa Indah Room. Sample in this study were pediatric patients with preschool age (3-6) as much 32 respondents (16 respondents in the control group and 16 respondents in the treatment group). The sampling technique used was purposive sampling. The research instrument used was an observation sheet based on the theory Hockenberry and Wilson (7) have modified the stressors and responses of preschoolers to hospitalization and a particular coloring book for children aged 3-6 years from Dahara Ceria (DC). The results of this study will be tested by paired t-test and independent t-test to compare the averages of the two groups after being given therapy.

Results

1. Univariate Analysis

Univariate analysis in this study can be seen in table 1 below:

Table 1: Frequency distribution of the characteristics of the respondents

Characteristics	Control Group		Treatment Group	
	F	%	F	%
Age				
Three years	3	18,8	4	25.0
Four years	7	43,8	4	25.0
Five years	4	25.0	4	25.0
Six years	2	12.5	4	25.0
Gender				
Man	10	61.5	8	50.0
Woman	6	37.5	8	50.0
Hospital admission history				
Once	5	31,3	8	50.0
Never	11	68.8	8	50.0
Waiter				
Parent	11	68.8	13	81.3
Sibling	3	18,8	1	6,3
Etc	2	12.5	2	12.5
medical dx				
Dengue Fever	7	43,8	7	43,8
Acute gastroenteritis	7	43,8	8	37.5
Febris Observation	2	12.5	1	18,8

Based on the table above, it can be seen that in the treatment group, the most age was four years, as much as 43.8%. In comparison, the control group has the same proportion of children aged 3-6 years, namely 25%. The history of hospital admission in the treatment group who had never had a history of hospital admission was 68.8%, while those who had had were 31.3%. The proportion in the control group who had never been and had been hospitalized was 50.0%. From the medical diagnosis category, it can be seen that 43.8% of the respondents in the treatment group were diagnosed with Dengue Fever, 43.8% with Acute Gastroenteritis, and 12.5% with Febris Observation. In the control group, respondents with a diagnosis of Dengue Fever were 43.8%, Acute Gastroenteritis was 37.5%, and Febris Observation was 18.8%. In the waiting category, it can be seen that the respondents in the treatment group were more awaited by their parents, 68.8%, 18.8% by relatives, and 12.5% by others. In the control group, 81.3% of children were looked after by parents and relatives, 6.3%, and others 12.5%.

2. Bivariate Analysis

The results of the independent variables and the dependent variable, followed by bivariate analysis, namely to determine the level of anxiety of children in the control group and the treatment group and to determine the effect of coloring play therapy on reducing hospitalization anxiety in preschool-aged children. In this study, paired t-tests and independent t-tests were used with the following results:

Table 2. The anxiety level of the treatment group before and after being given the intervention

	Group	N	Means	95% CI	Mean Difference s	Significant (p)
Treatment	Pretest	16	65,38	6.625- 6250	5,039	0.000
	Posttest	16	71,31			

The table above shows the results of statistical tests using a paired t-test with a value of $p = 0.000$ ($\alpha < 0.05$) so that it can be concluded that there is an effect of giving coloring therapy to reduce stress due to hospitalization in the treatment group. The anxiety of the treatment group before being given the intervention averaged 65.38. Anxiety after being given an intervention on average 71.31. The average difference in anxiety was 5.093, meaning there was a decrease in hospitalization anxiety in the treatment group.

Table 3. The anxiety level of the control group before and after without intervention

	Group	N	Means	95% CI	Mean Difference s	Significant (p)
Treatment	Pretest	16	65,94	2,298 - 1827	2,063	0.000
	Posttest	16	68,00			

Based on the table above, the results of statistical tests were obtained using a paired t-test with a value of $p = 0.000$ ($\alpha < 0.05$), so it can be concluded that there is an effect of giving coloring therapy to reduce stress due to hospitalization in the treatment group. The anxiety level in the treatment group before intervention averaged 65.94. The anxiety level after the intervention had an average value of 68.00. The average difference is 2.063; an increase in score means a decrease in hospitalization anxiety in children.

Table 4. The effect of coloring play therapy on reducing hospitalization anxiety in preschoolers

Variable	N	Means	Mean difference	Significance (p)
Treatment	16	5,093	3.03	0.002
Control	16	2,063		

From the table above, it is obtained that the value of $p = 0.002 < \alpha = 0.05$, so H_a is accepted (H_0 is rejected), which means there is an effect of coloring play therapy on reducing hospitalization anxiety in preschool-aged children. The reduction in child hospitalization anxiety in the treatment group was significantly higher than in the control group. The average difference in decreasing hospitalization anxiety in the treatment and control groups reached 3.03.

Discussion

The results showed that the independent variables had an effect on the dependent variable, and the analysis found that there was effect of coloring play therapy on reducing hospitalization anxiety in preschool-aged children. The results showed that giving picture coloring play therapy to children who experienced hospitalization caused a significant change in anxiety compared to before being given picture coloring play therapy. The control and treatment groups experienced a decrease in hospitalization anxiety before and after giving coloring pictures playing therapy, but the decrease was more significant in the treatment group. the same decrease occurred, but the anxiety score in the experimental group was higher than in the control group (8)

By doing coloring play therapy, children can divert the feelings of anxiety they experience through games as a distraction technique. Playing activities in children can divert pain, and through play, children will find pleasure (9). In the coloring therapy activities carried out at Mardi Waluyo Hospital, Blitar City, it was found that all respondents in the treatment group involved in this play therapy were able to express their feelings well through the colors chosen to color the pictures.

The results were different in the control group; when the posttest was carried out in the control group, the reaction was almost the same as the initial reaction when the pretest was carried out. This study's results align with Arief's research (10) that there was no significant reduction in anxiety in the control group because children only observed their surroundings without any initiative to participate in games according to their social characteristics. Anxiety that occurs in preschool children due to hospitalization is a condition that can be at risk of disrupting the child's development and impacting the healing process. Suppose this anxiety lasts a long time and is not resolved. In that case, it will lead to detachment in the child so that the child begins to not care about the surrounding environment, preferring to be silent or apathetic, refusing to take action. The worst part is that it will cause trauma after being discharged from the hospital (5).

Conclusions and Recommendations

The results of this study prove that there is an effect of coloring play therapy on reducing hospitalization anxiety in preschool-aged children, with $p = 0.002$ at a significance of $\alpha = 0.05$. This research can be used as an alternative therapy to reduce anxiety about the impact of hospitalization on preschool-aged children and provide knowledge that play therapy is needed to support the child's healing process.

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