



## The Effectiveness of Play Therapy: Coloring Against Anxiety Reduction in Pre-School Children Who Experience Hospitalization

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### ABSTRACT

Hospitalization for children has long-term and short-term impacts. The short-term is fear and anxiety, and if do not treat immediately, the children will deny the care and treatment. The other short-term impacts are insomnia, crying and afraid of the health team, so they deny the treatment given, which will affect the length of stay, aggravate the condition and even cause death. Anxiety causes physiological responses such as changes in the cardiovascular system and gasping breath patterns. Fear and anxiety are disturbances in the emotional needs of children, which requires treatment immediately because it affects their growth and development. The research design used was a quasi-experimental design with "one group pre and post-test with control group design". This research used a purposive sampling technique with the number of respondents being 40 people, 20 respondents were given a play therapy intervention, and 20 respondents were in the control group. The research results showed an effect of colouring play therapy on the anxiety level of hospitalized children with a p-value = 0.000 < = 0.05. Conclusion: Coloring play therapy is effective in reducing the anxiety of hospitalized pre-school children. Recommendation: improving the playing equipment facilities in hospitals and making play therapy a continuous activity for treatment and nursing interventions.

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### ABSTRAK

Hospitalisasi pada anak memiliki dampak jangka panjang dan dampak jangka pendek. Dampak jangka pendek berupa ketakutan dan kecemasan sehingga bila tidak ditangani segera anak akan melakukan penolakan terhadap perawatan dan pengobatan yang akan diberikan, selain itu dampak jangka pendek yang mungkin muncul adalah susah tidur, menangis dan takut dengan tim kesehatan sehingga anak menolak tindakan perawatan yang diberikan kepada anak, hal ini akan berpengaruh terhadap lamanya hari rawat, memberat kondisi anak dan menyebabkan kematian, kecemasan akan menimbulkan respon fisiologis yakni perubahan sistim kardiovaskuler dan perubahan pola nafas yang terengah-engah. Ketakutan dan kecemasan merupakan gangguan terhadap terpenuhinya kebutuhan emosional anak, yang diperlukan penanganan sesegera mungkin karena berdampak pada pertumbuhan dan perkembangan. Desain penelitian yang digunakan dalam penelitian ini adalah Quasi experiment dengan rancangan "one group pre and post test with control group design". Pada penelitian ini menggunakan tehnik Purposive sampling dengan jumlah responden 40 orang, 20 responden diberikan intervensi Play Terapi mewarnai dan 20 responden kelompok kontrol. Ada pengaruh play terapi mewarnai terhadap tingkat kecemasan anak yang mengalami hospitalisasi dengan P value = 0,000 <  $\alpha$  = 0,05. Play therapy merawani efektif dalam menurunkan kecemasan anak pra sekolah yang mengalaih hospitalisasi. Meningkatkan

fasilitas alat permainan di rumah sakit serta menjadikan play therapy sebagai kegiatan berkelanjutan untuk pengobatan dan intervensi keperawatan.



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## INTRODUCTION

Pre-school age children have less optimal immune responses and self-defence forces, so they have a great chance of experiencing health problems (Papila, 2014). Frequent health problems in pre-school children are fever, diarrhea and respiratory infections (Hurlock, 2014). These health problems put the child be hospitalized in a hospital or commonly referred to as hospitalization (Wong, 2009). The results of the UNICEF Survey in 2013, the prevalence of hospitalized children is around 84%, in Indonesia, the number of children aged 1-17 years who experienced health problems and were hospitalized nationally in the past year was 39.9 per cent treated in government hospitals, and 38.47 per cent treated in private hospitals. (Kemenpppa, 2019).

Hospitalization in children has long-term and short-term impacts. The short-term is fear and anxiety, and if not treated immediately, the children will deny the care and treatment. The other short-term impact is insomnia, crying and afraid of the health team, so they refuse the treatment given, which will affect the length of stay, aggravate the condition and even cause death (Niven, 2013). Anxiety causes physiological responses such as changes in the cardiovascular system and gasping breath patterns. Fear and anxiety is a disturbance in the emotional needs of children, which requires treatment immediately because it affects their growth and development (Agiest, 2018). Interventions to reduce anxiety and changes in physiological status in hospitalized children are Play Therapy. The long-term benefit is to develop positive behavioral responses to treatment. Play therapy-coloring can reduce the anxiety of hospitalized children (Marni, 2018). The research conducted by Idris and Reza in 2018 state that coloring is effective in reducing anxiety due to hospitalization of pre-school children.

## METHOD

The research design used was a quasi-experimental design with one group pre and post-test with control group design, where there is one intervention group receives Play Therapy and one control group. The research was conducted from April to August in Srikandi room at Jombang general hospital, with a population of all hospitalized pre-school children (3-6 years old). The sampling technique used in this research is purposive sampling with the inclusion criteria: Preschoolers (4-6 years), The first time hospitalized children and the parents permit their children to be respondents, the consciousness of *compos mentis* and while the exclusion criteria of this research: The child has decreased consciousness, the child has limited movement, children with cardiovascular disorders and children with respiratory problems. The sample size of the intervention group was 20 respondents, and the control group was 20 respondents. The total population in this research was 40 respondents. The data collection procedures in this research were: Before Play Therapy- coloring for respondents, the anxiety level measurement was carried out using FAS ( Face Anxiety Scale), with classification based on facial expression, a score of 0 is not anxious, a score of 1 is mild anxiety, a score of 2 is moderate anxiety, and a score of 3 is severe anxiety, and a score of 5 is panic, and After 30 minutes of intervention, Anxiety level measurement was carried out using FAS (Face Anxiety Scale) while for the control group, the level of anxiety before and after within 30 minutes measured using FAS (Face Anxiety Scale).

Data analysis in the study used the *Wilcoxon* test for pre-post anxiety intervention while comparing the post-intervention between intervention groups using the *Man Whitney* test. This research has passed the ethical test at Jombang General Hospital, East Java with the number.24/KEPK/IV/.

## RESULT AND DISCUSSION

### 1. Univariat

**Table 1**  
**Charatistics respondents**

Charatistics respondents	Kelompok				
	Play Therapy coloring		Control Group		
	n	%	n	%	
<b>Age</b>	4 years old	11	55	6	30
	5 years old	6	30	8	40
	6 years old	3	15	6	30
<b>Total</b>		20	100	20	100
<b>Gender</b>	Male	11	55	10	50
	Female	9	45	10	50
<b>Total</b>		20	100	20	100

Based on table 1, it can be seen that most of the 55% in the intervention group were four years old, and most age of the respondents in the control group was four years old. Most of the 55% of the intervention group were male, and for the control group, 50% were male and 50% female.

**Table 2**  
**The frequency of anxiety levels before the intervention Play therapy Coloring**

Anxiety levels	Pre intervention		Post intervention	
	n	%	n	%
	Not anxious	0	0	9
Mild anxiety	10	50	10	50
Moderate anxiety	9	45	1	5
Severe anxiety	1	5	0	0
Panic	0	0	0	0
<b>Total</b>	<b>20</b>	<b>100</b>	<b>20</b>	<b>100</b>

Based on table 2, the frequency of anxiety levels before the intervention makes half of the children experience mild anxiety as much as 50 %, and while at the post-intervention, the respondents are experienced mild anxiety as much as 50%.

**Table 3**  
**The frequency of anxiety levels Control Groups**

Anxiety Levels	Pre-Control		Post Control	
	n	%	n	%
Not anxious	0	0	9	0
Mild anxiety	4	20	5	25
Moderate anxiety	12	60	13	65
Severe anxiety	4	20	2	10
Panic	0	0	0	0
<b>Total</b>	<b>20</b>	<b>100</b>	<b>20</b>	<b>100</b>

Based on table 3, the frequency of children's anxiety levels in the pre-control group, namely 60% experienced moderate anxiety and post-control does as much as 65%.

## 2. Bivariat

**Tabel 4 statistic test Play therapy coloring groups anda control groups**

No	Groups	P Value
1	Play Therapy Coloring	0,000
2	Control Groups	0,083

Based on the results of statistical tests in table 4 found that  $p\text{-value} = 0.000 < 0.05$ . It means that play therapy-colouring impacts on decreasing the anxiety level of hospitalized pre-school children. Based on the results of statistical tests obtained in table 4 with  $p\text{-value} = 0.0083 > 0.05$ . This means that there is no pre-post control effect on reducing anxiety in hospitalized pre-school children.

Hospitalization is a state of crisis in children when sick and hospitalized, so they must adapt to the hospital environment.(Wong, Donna L; Hartono, Andry; Kurnianingsih, 2009)During the process, the children experience unpleasant things, which is shown by the child being inactive, uncommunicative, spoils toys or food, and reverts to previous behaviour (e.g. bedwetting, finger sucking) and regression behaviours such as dependence on parents, self-withdrawal. This situation caused by the children is trying to adapt to the hospital environment, and this condition becomes a stressor factor for both children and parents. Various feelings in children are anxiety, anger, sadness, fear, and guilt.(Hockenberry & Wilon, 2018)

Anxiety is a vague or diffuse worry related to feelings of uncertainty and helplessness and does not have a specific object. This emotional state neither. The capacity to be anxious is necessary for survival, but severe anxiety is not compatible with life. Anxiety can be seen in interpersonal relations and affect human life, with both positive and negative impacts. Anxiety will increase in the hospitalized pediatric patients, with various conditions and situations in the hospital.(Asmadi, 2008)

Based on table 4, the average level of anxiety of hospitalized pre-school children before and after intervention based on statistical tests obtained the results of  $p\text{-value} = 0.000 < 0.05$ . It means that there is an effect of play therapy- colouring on reducing anxiety in hospitalized

pre-school children. It is in line with research conducted by Idris and Reza in 2018 that play therapy-colouring is effective in reducing anxiety levels due to hospitalization in pre-school age children in the jasmine room of dr Chasbullah Abdulmajid Hospital. A study conducted by Apriany, Oyoh, and Faisal Maruf in Cibabat Regional Hospital, Cimahi City, in 2018 stated that there was a difference in the average level of anxiety of hospitalized pre-school children before and after play therapy-colouring intervention.

Play therapy is one of the particular aspects of a child's life, and it is one of the effective media, to reduce children's anxiety during hospitalization. (Supartini, 2004) Play Therapy has several functions in hospitals, namely facilitating children to be wonted to the new hospital environment for children and reducing stress on parting, improving distraction and relaxation, providing techniques to express creative ideas and interests, and as a tool to achieve therapeutic goals.

Play therapy-colouring is training for creativity and increasing the imagination of the child's right brain. Play therapy-colouring can balance the coordination between the child's right and left brain. By colouring, they are accessing the memories and knowledge saved in their right and left brains. So, the more children do colouring, the more balanced the intelligence of the right and left brain. (Astuti, 2016).

When the body is relaxed, the brain stimulates the release of endorphins, which provide an emotional stimulation effect in the limbic system, controlling maladaptive behaviour and triggering the feelings of pleasure when children are playing.(Kapti, Rustina, & Widyatuti, 2013)Playing activities for children can distract from pain during the games and relax.(Reza & Idris, 2018) Play therapy-colouring is a suitable game for pre-school age

children because children are happy with the activities related to colour and recognize the shape of the objects around them. Colouring can provide opportunities for children to express themselves. (Paat, 2010; Suryanti, Sodikin, 2012).

In the sampling process during the study, the response in children tended to avoid and cry when approached. Creating trust in pre-school age children requires the right way, which involves parents or the closest person. Researchers involved parents in communicating with children. Initially, the researchers explained the procedures and objectives to parents, and parents helped convey them to children. When the researcher began to explain and show the Play Therapy – colouringstools, such as crayons, pads and favourite characters pictures, then the children were freed to choose the characters they liked, the child began to show the best response to the researcher and wanted to do play therapy-colouring until the end, then some respondents wanted to do colouring activities again. Children's favourite games will make them feel happy doing the game, and playing activities for children can divert pain from playing and relaxation through the pleasure of playing games.

This play therapy-coloring is suitable to be used as a nursing intervention for children who experience anxiety so they refuse or are afraid of nurses, because the child feels the nurse is a stranger who will hurt them, so when the nurse comes in the uniform they will begin to show a reaction to hide behind the parents, crying, sulking at parents, not responding when invited to communicate and refusing nursing actions.

Play therapy-colouring can be done before treatment. During the process of intervention, nurses can communicate with children. Communication between nurses and children can occur if there is trust. The trust between nurses and children will make it easier for nurses to carry out nursing treatment as planned. The relationship of mutual trust between the nurse and the child will make the child relax in undergoing hospitalization and do not feel afraid and anxious during hospitalization.

## CONCLUSIOAN AND SUGGESTION

Pre-school children experience anxiety during hospitalization before playing therapy. Play therapy-colouring is effective in reducing anxiety in hospitalized preschool children with statistical test results of  $p$ -value =  $0,000 < \alpha = 0,05$ .

for hospitals to consider playing facilities in rooms and children's polyclinics that are more diverse so that children can choose the type of games they like and provide seminars or Play Therapy training to nurses so as to improve their skills regarding play therapy.

for nurses to pay more attention to play therapy activities as one of the interventions in nursing actions. Play therapy must be carried out continuously as part of treatment and care so that it can reduce the anxiety of hospitalized preschool children.

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## Conflict of Interest Statement

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