

Conference Paper

Coloring Pictures as Play Therapy to Reduce Impact of Hospitalization among Children in Hospital

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ORCID:*Dewi Marfuah: <https://orcid.org/0000-0002-9114-4661>***Abstract**

The impact of hospitalization on preschool children may impair the child's development and healing process. Therefore it is important to minimize the impact of hospitalization. One method to achieve this is by allowing children to play. The purpose of this study was to figure out the effect of therapeutic play (by coloring pictures) on the impact of hospitalization on preschool children in the child care unit of Cibabat-Cimahi Regional Public Hospital, West Java, Indonesia. This was quasi-experimental research with One Group Pre-test Post-test, with a sample of 15 respondents taken by quota sampling. The instrument used was Standard Operating Procedure (SOP) to play coloring pictures and questionnaires on the impact of hospitalization. Coloring pictures was performed once a day (15 minutes / intervention) for 2 days. The data analysis was employed paired with a sample t-test. This research shows the influence of coloring pictures on the impact of hospitalization, with the result of the paired sample t-test statistic shows p value 0.003 ($p < 0.05$). Nurses are expected to be more active in applying coloring pictures to preschool children undergoing hospitalization to reduce the impact of hospitalization.

Keywords: Coloring, Hospitalization, Preschool

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1. Introduction

Preschool period is the time when children experience a process of growth and development, imagination and creativity. On the development of motoric, preschool children are ready to start holding writing tools properly, to learn how to draw, to color, and to draw squares [1]. Preschool children have the greatest potential to experience health problems as the defense of immune system is growing. Therefore, children at that age should be hospitalized and it causes the population of hospitalized children in the hospital increase dramatically [2]. The number of sick children in Indonesia based on the National Health Survey (SUSENAS) in 2014 in urban areas at the age of 0-4 is 25.8% and reaches 14.74% for those aged 5-12. Children who are hospitalized will have

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an effect on their physical and psychological condition, this is called hospitalization [3]. Hospitalization is a critical condition where children experience to be hospitalized in the hospital. This situation occurs when the child is trying to adapt to the new environment of the hospital. Therefore, the condition has created a stressful factor for children and their families [4]. A previous study revealed that nearly four million children in a year experience hospitalization and the children get treatment for four to six days [5]. The National Socioeconomic Survey (SUSENAS) in 2014 preschool children in Indonesia is 62% of the total population of Indonesia, and it is estimated 35 per 100 children undergo hospitalization and 45% of them experienced anxiety [3].

Preschool children view hospitalization as a frightening experience manifested by reactions such as protest, despair, and regression. Regression can be in the form of crying, refusing to eat, refusing treatment and it is often perceived as punishment. This creates an aggressive reaction with anger and rebellion, verbal expression by saying angry words, uncooperative with nurses, depending on the experiencing anxiety [4]. Anxiety is the impact of hospitalization. Based on the result of maternal and child health surveys in 2013, it was found that 1,425 children had hospitalization, 32.2% of them had severe hospitalization, 41.6% had moderate hospitalization and 25.5% had mild hospitalization [6]. The impact of hospitalization makes the child afraid and anxious to separate with parents, and the children have often a nightmare to lose the function and control in connection with disruption of motoric function resulting in lacking of confident and it can distract the children's development and healing process on preschool children [4]. The impact of hospitalization on children is the impact of separation, loss of control, body image disturbance, pain, fear, and new environment, type of action or procedure and physical immobilization [7].

Playing can reduce the impact of hospitalization because playing is a healthy activity and necessary for the continuity of child growth and allows to dig, express the child's feelings and thoughts, and divert the feeling of pain and relaxation during treatment [8]. At preschool, the type of games that can be used such as drawing books, children's magazines, drawing tools, story books, children's comics, paper to study how to fold, scissors, water, candles which can be shaped etc. [9]. The function of playing is intended to the development of sensory-motoric, intellectual development, social development, and creativity development, as a healer and as a therapy [9]. The purpose of playing for children in the hospital is to reduce feelings of fear, anxiety, sadness, tension and pain because in preschool children (3-6 years) they are not ready to be able to express their feelings and thoughts. In addition, coloring provides an opportunity for children to

express their feelings freely that allows children to express their feelings and as a way of communicating without using words [4].

Based on preliminary study conducted at Cibabat Regional Public Hospital-Cimahi in Child Care Room, it was found that the number of children treated during the last 3 months was 969 children and the number of preschool children (3-6 years) was 270, with the preschool age average 80-90 patient every month. The result of observation and interview with 9 children and parents of the patient, it is concluded that 8 of 9 children treated at Cibabat-Cimahi Child Care Room showed signs and symptoms of hospitalization impacts such as crying while they are in the room, crying before treatment and crying before going home. According to the nurse, they said that the negative impact of the hospitalization hampered treatment and healing. Based on the description above, the researchers are interested in conducting research entitled "The influence of therapeutic play: coloring pictures toward the impact of hospitalization of preschool children in the Child Care Room in Cibabat-Cimahi Regional Public Hospital.

2. Methods and Equipment

The research was quasy-experiment with one group (Pretest and Post-test). The population was all preschool children who were treated at Child Care Room in Cibabat-Cimahi Regional Public Hospital, West Java, Indonesia. The study conducted on 01 November 2016 - 01 January 2017. The sample selected by using quota sampling technique with the number of samples of 15 children with inclusion criteria: Patients aged 3-6 years, could communicate well, within 1-3 days of treatment, no previous hospitalization history. The instrument used in this study was Standard Operational Procedure (SOP) for the implementation of the coloring activity of the picture. The questionnaire of the impact of hospitalization [4], which contains 25 item to assess the impact of hospitalization questionnaire which has been tested the validity with product moment correlation with value $r = 0.436$. Reliability test in this research used coefficient cronbach alpha with value of $r = 0,938$. The impact of hospitalization questionnaire [4] consists of 8 main domains are the impact of separation (4 questions), loss of control (2 questions), body image disturbance (4 questions), pain (3 questions), fear (4 questions), new environment (4 questions), type of action or procedure (2 questions) and physical immobilization (2 questions). Impact of hospitalization was classified into 3 categories: if the score of ≥ 78 to be classified as have a mild impact of hospitalization, score of 70-78: medium impact of hospitalization, and score of ≤ 70 : severe impact of hospitalization.

The intervention of coloring pictures was conducted once a day (15 minutes / intervention) for 2 days by giving one sheet of paper containing the drawing and color pencil. The researcher instructed the respondent to start coloring pictures and instruct the family to accompany the child during the intervention and to participate in the activity by doing the coloring activity. The impact of hospitalization on the respondents was conducted before and after the intervention of playing coloring pictures. Bivariate analysis was calculated by using Paired Sample T-Test.

The study had ethical clearance approval from ethical committee of STIKep PPNI Jawa Barat.

3. Results

TABLE 1: The characteristics of respondents (n=15)

Characteristic of Respondent	n	%
Gender		
Males	6	40.0
Females	9	60.0
Diagnosis of decease		
Dengue fever	2	13.3
Typhoid	8	53.3
High fever	3	20.0
Bronchopneumonia	1	6.7
Diarrhea	1	6.7

The characteristics of respondents in this study based on gender showed that most of the respondents were female (60.0%) and based on the disease diagnosis showed that most of the respondents had typhoid (53.3%).

TABLE 2: Impact of Hospitalization before and after intervention

Impact of Respondents Hospitalization	Before Intervention		After Intervention	
	n	%	n	%
Mild	0	0	0	0
Medium	6	40.0	14	93.3
Severe	9	60.0	1	6.7

Based on the results of the study there was a change in the percentage of impact of hospitalization before and after given therapeutic play interventions: coloring pictures on

the impact of hospitalization among preschool age children in Cibabat-Cimahi Regional Public Hospital.

TABLE 3: The influence of playing therapeutic: coloring pictures in preschool children

Variable	Playing Coloring Pictures	Mean	SD	p value
Impact of Hospitalization	Before	66,00	5.707	0,003
	After	71.80	1.971	

*SD: Standard of Deviation

Based on t-test analysis shows there was difference of average score of impact of hospitalization before and after given the intervention to play coloring picture, this is proved by p-value $0,003 < \alpha 0,05$, meaning there is influence of therapeutic play: coloring picture of the impact of hospitalization among preschool age children

4. Discussion

Based on the results showed that the most of the respondents (60.0%) experienced severe impact of hospitalization. Children’s reactions toward sickness have a great deal of differences from the factors affecting hospitalization, including: age and children’s development, parental response to sickness and hospitalization, children and parents’ preparation for hospitalization, children’s experience during illness and hospitalization process. In the hospitalization process, preschool children on the first day of children’s hospitalization will be in a protest phase where the child exhibits strong crying behavior and refuses the attention given from others. In this protest phase children usually protest verbally and conduct physical attacks against others, such as kicking, biting or punching. It may cause children to experience severe hospitalization [10].

Therefore, the children during the recovery period for more than 4 days, the children will begin to interact with others and begin to form new but superficial relationships [11]. It can be concluded that most children experience the impact of severe hospitalization due to factors affecting hospitalization. One of the changes is the physical environmental change during hospitalization and it can make children feel strange so that children feel unsafe and uncomfortable. This is because the children must adapt to the new environment in the hospital. Therefore, children will be more sensitive and the children are not eager to work together with nurses, depending on parents, refusing treatment and children are uncooperative with health workers. Besides, they are also influenced by gender, where girls are more easily influenced by environmental pressures and more sensitive than boys who are more active and explorative. In addition, children are

experiencing physiological changes with special features of changes such as children who have typhoid on the first week being hospitalized will experience high fever, headache, nausea, vomiting and abdominal bloating so that children will react to pain by crying, biting her lips, kicking and hitting. Furthermore, the feeling of discomfort and pain experienced by the child will make the children disturbed and the children will experience the impact of severe hospitalization [7].

The condition of a child with a diagnosis of typhoid and bronchopneumonia will be different where a child with a first typhoid diagnosis will have fever, nausea, vomiting and fever later in the afternoon until night, while a child with a diagnosis of bronchopneumonia symptoms occurs suddenly or slowly with a cold or cough which will then develop resulting in shortness of breath and fever. Parental response to hospitalization is also one of the factors that affect the reaction of the child. During hospitalization parents will feel fear and anxiety, feelings of fear and anxiety in the elderly occur as parents wait for results about the diagnosis of patients' illnesses where parents often keep asking, restless by showing tense on facial expressions and will make the child more anxious and afraid [12].

The effectiveness of playing therapy: coloring the picture on hospitalization impact on preschool children in Cibabat Cimahi hospital proved by p value $0,003 \leq \alpha$ (0.05). There were differences in the impact of hospitalization before the intervention and after being given intervention with the Sig score. (2-tailed) 0.000. The statistical result shows the mean where the mean before (-) and mean after intervention shows a decrease of -5,800 from 137.8, this indicates that the mean value after it is lower or less than the previous mean so it can be concluded that the giving of the coloring intervention of the drawing can reduce the impact of hospitalization on preschool children. The results of this study in accordance with the theory that coloring pictures is a method and way that can be used and given to the child during in the hospital to reduce the impact of hospitalization. The impact of hospitalization on preschool children will be detrimental to and worsen the state of the child, and behavioral change is one of the impacts of hospitalization in children. This is because children react to stress before, during and after hospitalization. The impact of hospitalization makes the child afraid and anxious to separate with parents, the child has often a nightmare so that the loss of function and control in connection with disruption of motoric function resulting in lacking of confidence in the child. This can disrupt the child's development and healing process in preschool children [4].

The impact of such hospitalization can be minimized in many ways and one of them is by playing coloring the pictures as coloring the pictures is a healthy activity

and necessary for the continuous growth of the child and it is possible to dig and express the feeling, the child's mind, divert the pain and relaxation during treatment (as a therapeutic play) [8]. Playing coloring pictures gives a positive impact that gives a relaxed effect on the child due to its exciting activities through coloring pictures it can be used as a medium of expression, assisting motoric skills and introducing children with appropriate images and colors given in the existing picture meaning giving the child a way to communicate without using the word. Psychological dynamics illustrate that during coloring the child will express his imagination in color scratching on the image so that the child will feel more relaxed, comfortable and quiet [13]. By playing coloring the child pours the symbolization of the pressure or traumatic conditions undergoing in graffiti and color selection so that the child can express feelings kept in his subconscious. Through coloring, a person is unconsciously releasing a secret from the part of the brain that has an important and decisive role in emotion especially in the fear, that is the amygdala located in the medial part of the temporal lobe that will create sadness, depression, stress and create a picture making the child happy again and it can reduce the impact of hospitalization during child care in hospital [14].

It can be concluded that coloring is a game that can be performed on preschool children being treated in hospital. This is because coloring is a therapeutic game that can reduce the impact of hospitalization in preschool children to escape from tension and stress and divert feelings pain and relaxation during treatment to express his emotions and feelings. The decrease in the impact of hospitalization can also be influenced by the diagnosis of children who experience typhoid in the first week of children experiencing a prolonged high fever, nausea, vomiting, no appetite, stomach bloating stiffness and others. It supports the impact of coloring pictures given by researchers in the morning and fever in children with typhoid symptoms will increase slowly during the day until night, and when given coloring intervention, a child is not in a state of high fever which also supports in minimizing the impact of hospitalization in preschool children.

5. Conclusion

There is the effect of therapeutic play by coloring the picture on the impact of hospitalization on preschool age children in Cibabat Cimahi hospital where coloring can reduce the impact of hospitalization in children. Thus, nurses are expected to apply therapeutic play by coloring pictures to reduce the negative impact of hospitalization felt by children who are undergoing hospitalization.

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