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## Effect of Puzzle Playing Therapy on Stress Levels Hospitalization for children (4-6 Years)

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<sup>K</sup>Eva Silviana Rahmawati<sup>1</sup>, Nanik Nuraini<sup>2</sup>

<sup>1</sup>IHK NU Tuban

<sup>2</sup>Akademi Kebidanan Mandiri Gresik

Correspondence author email (<sup>K</sup>): [evasilvianarahma@gmail.com](mailto:evasilvianarahma@gmail.com)

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### ABSTRACT

Aggressive reactions with anger and rebellion, verbal expressions with angry words, do not want to cooperate with nurses, if this condition occurs it will affect the treatment process while in hospital (Supartini, 2004). For that, children need media to divert reactions aggressive. The purpose of this study was to determine the effect of puzzle play therapy on hospitalization stress for children (4-6 years) in the Melati Room, RSID dr. R. Koesma Tuban. This study used a One Group Pre -Post Test design which involved 19 respondents who were taken by Systematic Random Sampling. Data was taken using a questionnaire. Data were analyzed using the Wilcoxon test with a significant level of 0.05. The results showed that H<sub>0</sub> was rejected, so that there was an effect of puzzle playing therapy on the level of stress hospitalization children (4-6 years old) in the Jasmine Room Hospital d r. R. Koesma Tuban (Asymp value Sig. (2-tailed) = 0.000). Puzzle play therapy has been shown to reduce the level of stress hospitalization children aged 4-6 years. The hospital should provide a special room for children to play, socialization to health workers, especially nursery nurses, such as being given puzzle play therapy, as well as providing rooms designed for children. Asking for parental support, assistance and participation is also needed so that puzzle play therapy can be implemented properly.

Keywords: Puzzle Play Therapy, Child Stress Level

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## INTRODUCTION

Sickness and hospitalization are the main crises that appear in children. Children being cared for in Hospitals are prone to crises because children experience changes, both in terms of health status and the environment from daily habits, children have a number of limitations in coping mechanisms to deal with stressful events. The child's reaction in overcoming the crisis is influenced by the level of development of age, previous experience of being sick and being cared for, available support systems, and coping skills in dealing with stress <sup>1</sup>.

When a child is hospitalized (hospitalization) forces the child to be separated from an environment that he feels is safe, loving and fun, namely the home environment, games, and playmates. Hospital care is often perceived by preschool children as punishment so that children will feel ashamed, guilty, or afraid, this causes an aggressive reaction with anger and rebellion, verbal expression with angry words, does not want to cooperate with nurses, if this condition occurs it will affect the process of care while in hospital <sup>2</sup>

The morbidity rate of children aged 0-21 years when calculated from the total population is 14.44%. Survey i conducted by researchers in December 2017 found the number of children who were hospitalized aged 4-6 years at dr. R. Koesma Tuban as many as 20 children per month . Of the 10 children (100%) 3 children (30%) were seen crying slowly, 5 children ( 5 0%) refused to eat and often asked questions, and 2 children (20%) often asked questions, cried, and were uncooperative with the officers. health.

The hospital environment is a cause of stress for children, both the social environment such as fellow pediatric patients as well as the interactions and attitudes of health workers as well as the physical environment of the hospital such as buildings or treatment rooms, hospital equipment, distinctive odors, white clothes of health workers<sup>3</sup>. In preschool age children, illness is one of the causes of stress. If the child experiences severe stress while being hospitalized, the child will experience somatic, psychomotor, and emotional disorders <sup>4</sup>. The he response of pre-school children during hospitalization is stress which can be in the form of regression or loss of control, displacement, aggression (denying), withdrawing, protesting behavior, and being more sensitive and passive such as refusing to eat and others. Therefore, intervention is needed to reduce stress due to hospitalization, so that children become cooperative and can support the healing process<sup>5</sup>. Every child although in treatment permanent needs activity play. Play also provides freedom to express emotion and gives protection child from stress, cause play help child copes with experience that doesn't fun, treatment and procedure invasive . one of them is play puzzle. The results of the study stated that puzzle play therapy in pre-school-age children who experienced hospitalization could use well-designed game tools that would attract children's attention more than game tools that were not well designed. Preschool children usually like toy tools with simple and uncomplicated shapes and bright colors. One example of an interesting game is a puzzle game because

puzzles can improve children's thinking and concentration. Through puzzles, children will be able to learn something complicated and children will think about how this puzzle can be arranged neatly with the aim of diverting children's attention to stress. Another benefit of playing puzzles is that it can increase cognitive intelligence<sup>6</sup>. Puzzles also have function for practice motor smooth, that is practice Skills hand for preparation writing, the visual perception that is for practice visual understanding and problem-solving that is a child being trained for try to solve the problem in the puzzle that can be expressed feeling child, divert feeling pain, and relaxation<sup>7</sup>.

Look the problems experienced child moment hospitalization required existence socialization to officer health specifically nurse room child as given therapy play puzzles, as well as provide designed room for the child. Ask parental support, assistance and participation are also needed so that could implementation therapy play puzzle with good.

Based on this background, researchers are interested in taking a study entitled the effect of puzzle play therapy on the stress level of hospitalization for children (4-6 years) in the Melati Room of RSUD dr. R. Koesma Tuban.

## METHOD

The method used in this research is a one-group pre-post test design. The characteristic of this type of research is to reveal a causal relationship by involving a group of subjects. Subject groups were observed before the intervention, then observed again after the intervention<sup>8</sup>. The independent variable in this study was therapy play puzzles. The dependent variable in this study was the level of hospitalization stress.

The population in the study is the subject (eg humans, clients) who meet the established criteria. The population in this study was the number of pediatric patients aged 4-6 years who were undergoing treatment in the Melati Room RSUD, dr. R. Koesma Tuban, from January 2017 to March 2018 which was averaged per month amounted to 20 respondents. The sample in this study were patients' children (4-6 years) in the Melati Room RSUD dr. R. Koesma Tuban with a total of 19 respondents and according to the inclusion criteria. This study uses a probability sampling technique, namely "si systematic random sampling".

Research instruments are tools that will be used for data collection<sup>8</sup>. The instrument used in this study was a questionnaire sheet made by the researcher himself. The instrument contains 14 questions that show response good psychology that is indicator numbers 3, 8, and 10 with results child Becomes relax, while the numbers 1, 4, 6, 9, 11, and 13 show reaction child can more be patient, and respond from the numbers 2, 5, 7, 12, and 14 are nice thought with circumstances. In determining the scoring statement, the answer choice is No Ever : 0, Sometimes: 1, Often: 2, Often Once : 3. It is accumulated according to the number of questions with a total score of 42 and is categorized into 3, namely: Stress

Light, if the respondent gets a score of 1 -14, Stress Medium, if the respondent gets a score of 15-28 and Stress B is close, if the respondent gets a score of 29-42. Other instruments used are puzzles with a total of 8 pieces for 4 years old, puzzles with a total of 10 pieces for 5 years old, and a 12 piece puzzle for 6 years old.

This research was conducted in a way, the researchers applied for permission to the Director of RSUD dr. R. Koesma Tuban for the approval of the proposal guidance from the Education S1 Nursing Institute of Health Science Nahdlatul Ulama Tuban. After obtaining approval, the researcher looked for samples to be studied according to the criteria to be studied. Then the parents of the children who will be studied are given an informed consent letter to be signed stating they are willing and voluntary to be used as research samples.

After the parents agreed, observations were made using a sheet questionnaire (pre-test) conducted on children who were treated on the second day of treatment or on the third day of treatment. The second and third days of the puzzle group were given the intervention according to the group. To compose puzzle , the number of puzzle pieces for children aged 4 years is less than for children aged 5 and 6 years, for children aged 4 years the puzzle is a total of 8 pieces, while children are 5 years old 10 pieces puzzle and children age 6 years of the puzzle amount 12 pieces. The types of puzzles that the same child plays on the second and third days are different, to prevent boredom in children. The implementation of puzzle play therapy is carried out for 20 to 30 minutes. To optimize the implementation of therapy and observe the effect of therapy on the level of Due to the stress of hospitalization, the researcher collaborated with the room nurse who was on duty at the time. The implementation of therapy can be done individually or in groups depending on the situation and conditions at that time. Where to play puzzles carried out in the treatment room, near the nurse station. The role of parents when given puzzle play therapy, accompanying children to play, providing support, even playing with children so that children feel there is support from parents and want to play.

## RESULTS

**Table 1 Distribution Frequency Respondent Based on Type Gender in pediatric patients (4-6 years) in the Melati Room RSUD dr. R. Koesma Tuban**

No.	Sex	F	%
1	Man	8	42.1
2	Woman	11	57.9
	Amount	19	100

Source: Research Primary Data, 2022

**Table 2 Distribution Frequency Respondent Based on the education of the parents of the children (4-6 years old ) who were treated in the Jasmine Room, dr. R. Koesma Tuban**

No	Parental Education	F	%
1	Not School	1	5.3
2	elementary school	2	10.5
3	junior high school	1	5.3
4	senior High School	10	52.6
5	College	5	26.3
	Amount	19	100

Source: Researcher Primary Data, 2022

Based on table 2 Distribution frequency of respondents based on parent education \_ children (4-6 years ) who are cared for in the Melati RSUD dr. R. Koesma Tuban could know that part big parents respondents namely 10 people (52.6%) have high school education.

**Table 3 Distribution Frequency Respondent Based on Stress Level Child Hospitalization (4-6 Years ) Before given Therapy Play Puzzles in the Jasmine Room of RSUD dr. R. Koesma Tuban**

No	Stress Level	F	%
1	Light	0	0
2	Currently	19	100
3	Heavy	0	0
	Amount	19	100

Source: Research Primary Data, 2022

Based on table 3, the frequency distribution of respondents based on the stress level of hospitalization for children (4-6 years) before being given puzzle play therapy in the Melati room of RSUD dr. R. Koesma Tuban can be seen that all 19 respondents (100%) experienced moderate stress.

**Table 4 Distribution Frequency Respondent Based on Stress Level Child Hospitalization (4-6 Years) After being given Therapy Play Puzzles in the Jasmine Room of RSUD dr. R. Koesma**

No	Stress Level	F	%
1	Light	15	78.9
2	Currently	4	21.1
3	Heavy	0	0
	Amount	19	100

Source: Researcher Primary Data, 2022

Based on Table 4 Distribution of the frequency of respondents based on the stress level of hospitalization for children (4-6 years) after being given *puzzle play therapy* in the Melati room of RSUD dr. R. Koesma Tuban can be seen that almost all 15 respondents (78.9%) experienced mild stress.

**Table 5 Cross Table of Influence Therapy Playing *Puzzles* Against Stress Levels Hospitalization for Children (4-6 Years ) in the Melati Room RSUD dr. R. Koesma Tuban**

Therapy Play Puzzles	Stress level			Total (%)
	Light	Currently	Heavy	
Pre test	0 (0%)	19 (100%)	0 (0%)	19 (100%)
Post test	15 (78.9%)	4 (21.1%)	0 (0%)	19 (100%)

Source: Researcher Primary Data, 2022

Based on Table 5 Distribution of the frequency of respondents based on the stress level of hospitalization for children (4-6 years) before being given puzzle play therapy in the Melati room of RSUD dr. R. Koesma Tuban can be seen that all 19 respondents (100%) experienced moderate stress. While the frequency distribution of respondents is based on the stress level of hospitalization for children (4-6 years) after being given puzzle play therapy in the Melati room of RSUD dr. R. Koesma Tuban can be seen that almost all 15 respondents (78.9%) experienced mild stress.

## DISCUSSION

### **Stress Level Child Hospitalization (4-6 Years) Before being given Therapy Play Puzzles in the Jasmine Room of RSUD dr. R. Koesma Tuban**

Based on the results of the study, it was found that the stress level of hospitalization for children (4-6 years) in the Melati room of RSUD dr. R. Koesma Tuban during the post-test or after being given treatment, a small portion was still in the category of moderate stress.

From this study, it can be seen that there is a decrease in the stress level of hospitalization for children (4-6 years) in the Melati Room of RSUD dr. R. Koesma Tuban who was given puzzle play therapy. By playing puzzles, children will fulfill their need to play and be creative so that they can divert their attention from feeling uncomfortable due to being treated or distracted<sup>9</sup>. According to Soemiarti Patmonodewo (1995), the word puzzle can be interpreted as unloading pairs. According to the Indonesian English Smart Dictionary, a puzzle means a puzzle. Dina Indriana (2011) suggests that a puzzle is a game to unite pieces to form a predetermined image or text. As stated by Indriana (2011), puzzles have the advantage of having a variety of colors so that they attract children's interest in learning and increase children's endurance in learning<sup>10</sup>. According to Sofia Hartati (2005), a puzzle is a game tool needed by children, consisting of pieces that are easily lost, and require control over errors. According to Agus Hariyanto (2011), puzzle games are games that can be used to train concentration and improve children's memory. Puzzle playing activities will stimulate children to remember the position of each puzzle piece to get the perfect arrangement<sup>11</sup>.

From the description of the facts and theories, the researcher argues that almost all respondents experienced a decrease in the stress level of hospitalization for children (4-6 years), the stress level for hospitalization for children decreased if the respondent was able to follow instructions properly

supported by conducive room conditions so that the therapy given had an effect. , while there was a small proportion of respondents who did not experience a decrease in stress levels or remained after being given the intervention this was because the condition of the room at that time was in visiting hours so it was crowded as result the respondents were disturbed to concentrate and follow orders. In addition, respondents are also less cooperative in undergoing therapy. The gender of the respondents, mostly women, resulted in a faster reduction in stress levels than men. This is because girls prefer activities that do not require more energy, unlike boys. The education of the respondents' parents, especially mothers, most of whom have a high school education, also greatly affects the reduction in stress levels, mothers with higher education will be more supportive and stimulate puzzle playing activities that can optimize the reduction of hospitalization stress levels in children. The fact that occurs in respondents who do not experience a decrease in hospitalization stress levels, for example in respondents number 8, 11, 13, and 16 who are given puzzle play therapy, the hospitalization stress level does not change where from moderate stress to moderate stress this is caused by environmental factors at home.

The hospital is bustling with the cries of other patients who often cry, so the respondents sometimes cry too. Also caused by the lack of support from parents when children play puzzles. The respondent's parents do not always support the child by playing with the child, which is because the respondent's mother is waiting for her own child in the hospital, while the respondent's father rarely comes to the hospital. When the respondent played puzzles, the respondent's mother was not always beside the respondent because she was busy taking medicine, taking care of administration (letters for health insurance). All this was done by the respondent's mother. So that parental stress affects the support for their children which has an impact on not decreasing the stress level of the child's hospitalization. The level of education of the child's parents determines the role of parents during the implementation of therapy. Parents of children with high school education will provide greater support than parents with elementary education or those who do not attend school.

### **Stress Level Child Hospitalization (4-6 Years ) After being given Therapy Play Puzzles in the Jasmine Room of RSUD dr. R. Koesma Tuban**

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From the description of the facts and theories, the researcher argues that almost all respondents experienced a decrease in the stress level of hospitalization for children (4-6 years), the stress level for hospitalization for children decreased if the respondent was able to follow instructions properly supported by conducive room conditions so that the therapy given had an effect. , while there was a small proportion of respondents who did not experience a decrease in stress levels or remained after being given the intervention this was because the condition of the room at that time was in visiting hours so it was crowded as result the respondents were disturbed to concentrate and follow orders. In addition, respondents are also less cooperative in undergoing therapy. The gender of the respondents, mostly women, resulted in a faster reduction in stress levels than men. This is because girls prefer activities that do not require more energy, unlike boys. The education of the respondents' parents, especially mothers, most of whom have a high school education, also greatly affects the reduction in stress levels, mothers with higher education will be more supportive and stimulate puzzle playing activities that can optimize the reduction of hospitalization stress levels in children. The fact that occurs in respondents who do not experience a decrease in hospitalization stress levels, for example in respondents number 8, 11, 13, and 16 who are given puzzle play therapy, the hospitalization stress level does not change where from moderate stress to moderate stress this is caused by environmental factors at home. The hospital is bustling with the cries of other patients who often cry, so the respondents sometimes cry too. Also caused by the lack of support from parents when children play puzzles. The respondent's parents do not always support the child by playing with the child, which is because the respondent's mother is waiting for her child in the hospital, while the respondent's father rarely comes to the hospital. When the respondent played puzzles, the respondent's mother was not always beside the respondent because she was busy taking medicine, taking care of administration (letters for health insurance). All this was done by the respondent's mother. So that parental stress affects the support for their children which has an impact on not decreasing the stress level of the child's hospitalization. The level of education of the child's parents determines the role of parents during the implementation of therapy. Parents of children with high school education will provide greater support than parents with elementary education or those who do not attend school. The size of parental support during therapy will affect the process of reducing child hospitalization stress. In respondent number 13, the education level of parents in higher education, compared to respondents number 8 and 16, whose parent education is high school, and respondent



number 11 whose parent education is an elementary school with a lower level of work activity but the lack of information related to the hospitalization of children makes the child's stress level remained or did not change, even though the child's age was the same as 6 years where the child was more understanding with the parents' explanation, but in respondent number 13 there was no change in the level of hospitalization stress before and after being given puzzle playing therapy due to busy parents so that lack of support for children so that it affects the stress level of hospitalization.

Almost all respondents experienced a decrease in hospitalization stress levels because respondents were fully supported by the presence of their parents who always accompanied them, as well as respondents' parents who received more information from the room nurse about the hospitalization response that occurred in children so that the respondent's parents better understood the child's current stressful condition. With puzzle games, children have a medium to play and distract from the pain, anxiety, and noise in the surrounding environment. This supports a decrease in hospitalization stress levels in children as evidenced by improved or more relaxed sleep quality and children rarely cry when nurses come. Children can also be more patient when putting together several puzzle pieces.

#### **Influence Therapy Play *Puzzle* Against Stress Level Hospitalization for Children (4-6 years ) in the Melati Room RSUD dr. R. Koesma Tuban**

The results of data analysis used in this study are the Wilcoxon test using SPSS with a significance level of  $= 0.05$ , the Asymp value is obtained. Sig. (2-tailed) = 0.000 where  $0.000 < 0.05$ , then  $H_1$  is accepted  $H_0$  is rejected so it can be concluded that there is an effect of puzzle play therapy on the stress level of hospitalization of children in the Melati Room RSUD dr. R. Koesma Tuban. The results of the analysis and interpretation of the data obtained from children who underwent hospitalization showed that almost all of them experienced a decrease in stress levels, from moderate stress to mild stress, and a small proportion of children did not experience a decrease in stress levels or remained.

The results of this study are also supported by previous research with the title Differences in Puzzle Playing Therapy and Storytelling Against Stress in Pre-School Children During Hospitalization in the Children's Room at TK III RW Wongosidi Hospital which can reduce hospitalization stress levels in children<sup>14</sup>. Research conducted by Palla (2011) also states that puzzle play therapy can reduce hospitalization stress levels in children (4-6 years). By playing puzzles, children will fulfill their need to play and be creative so that they can divert their attention from feeling uncomfortable due to being treated or distracted<sup>3</sup>. In addition, Supartini (2004) also found that by playing, children will be released from the tension and stress they experience, children will be able to divert their pain from playing (distraction) and through fun (relaxation). Play also provides freedom to express emotions and provides protection against stress, because play helps children cope with unpleasant experiences, medications, and invasive procedures. Thus, it is expected that the child's response to the hospitalization in the form

of aggressive behavior, a regression can be reduced so that children are more cooperative in undergoing treatment at the hospital <sup>15</sup>.

The success of the therapy that was carried out was due to the provision of puzzle playing therapy that went well and was carried out with instructions for implementing therapy or SOPs. Success is also supported by the role of parents who always accompany the child during therapy and sufficient information about what to do when the child is admitted to the hospital. Conditions in a conducive hospital environment also support the success of therapy, such environmental conditions include calm and comfort in the hospital as well as restrictions on visitors so that during therapy the atmosphere is calm and comfortable. The success of giving puzzle play therapy has a positive impact on reducing stress levels in children aged 4-6 years during hospitalization.

## CONCLUSION

In accordance with the specific objectives, this research can be concluded, among others:

1. Stress level hospitalization in children (4-6 years ) before done therapy play puzzle in the Jasmine Room of RSUD dr. R. Koesma Tuban show that whole respondent experience level stress medium.
2. Stress level hospitalization in children (4-6 years ) after done therapy play puzzle in the Jasmine Room of RSUD dr. R. Koesma Tuban show that almost whole respondent experience drop level good stress that is stress light.
3. There is an influence therapy play puzzle against level stress hospitalization children (4-6 years ) in the Melati Room RSUD dr. R. Koesma Tuban

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