

THE EFFECTS OF PUZZLE THERAPY ON REDUCING PSYCHOLOGICAL DISTRESS IN PRESCHOOL CHILDREN DURING HOSPITALIZATION

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Abstract: The Effects of Puzzle Therapy on Reducing Psychological Distress in Preschool Children During Hospitalization. Hospitalization can be a distressing experience for preschool children, often leading to psychological distress such as anxiety, fear, and emotional distress. This study investigates the effects of puzzle therapy as an intervention to reduce psychological distress in hospitalized preschool children. Puzzle therapy, a form of play-based activity, engages children cognitively and emotionally, providing a distraction from the hospital environment and promoting a sense of control and accomplishment. This is experimental research with a quasi-experimental design and a pre-test-post-test approach. The population in this study were 16 respondents using a purposive sampling technique. The findings revealed a significant effect of play puzzle therapy on the level of psychological distress in preschool children (4-5 years) during hospitalization at the Mayjen H.A Talib Kerinci Public Hospital ($p < 0.05$). The results suggest that puzzle therapy effectively mitigates psychological distress, improves emotional well-being, and enhances the overall hospital experience for preschool children.

Keywords: Hospitalization, Psychological Distress, Puzzle Therapy

Abstrak: Pengaruh Terapi Puzzle terhadap Penurunan Distres Psikologis pada Anak Usia Prasekolah Selama Rawat Inap. Rawat inap bisa menjadi pengalaman yang menyedihkan bagi anak-anak prasekolah, seringkali menyebabkan ketidaknyamanan psikologis seperti kecemasan, ketakutan, dan tekanan emosional. Studi ini menyelidiki efek terapi teka-teki sebagai intervensi untuk mengurangi tekanan psikologis pada anak prasekolah yang dirawat di rumah sakit. Terapi teka-teki, suatu bentuk aktivitas berbasis bermain, melibatkan anak-anak secara kognitif dan emosional, memberikan pengalih perhatian dari lingkungan rumah sakit dan meningkatkan rasa kontrol dan pencapaian. Ini

adalah penelitian eksperimental dengan desain kuasi-eksperimental dan pendekatan pre-test-post-test. Populasi dalam penelitian ini adalah 62 responden yang menggunakan teknik purposive sampling. Hasil penelitian ini mengungkapkan efek signifikan dari terapi bermain puzzle pada tingkat tekanan psikologis pada anak prasekolah (4-5 tahun) selama rawat inap di Rumah Sakit Umum Mayjen H.A Talib Kerinci ($P < 0,05$). Terapi puzzle secara efektif mengurangi tekanan psikologis, meningkatkan kesejahteraan emosional, dan meningkatkan pengalaman rumah sakit secara keseluruhan untuk anak-anak prasekolah.

Keywords: Hospitalization, Psychological Distress and Puzzle Therapy

INTRODUCTION

A child is an individual who is still dependent on adults and their environment, requiring a nurturing environment that can meet their basic needs and facilitate their development of independence. Children typically begin to learn independence around preschool age, between 4 and 5 years old. When a child is ill, they may exhibit different reactions and tend to experience anxiety and difficulty interacting with others. This is often due to the need for hospitalization (Imron, 2018).

Hospitalization can also be defined as a condition that forces someone to undergo inpatient treatment in a hospital to go through treatment or therapy due to illness. The experience of hospitalization can disrupt a person's psychology, especially if that person is unable to adapt to their new environment in the hospital (Muhammad et al., 2013).

Being sick and hospitalized is not an easy or a regular occurrence, and may even be terrifying, traumatic, to the child and/or her

parents (Rokach, 2016). Children are sometimes more susceptible to illness, so it is not uncommon to have to be hospitalized. Hospitalization is a crisis in children when children are sick and hospitalized. Hospitalization occurs because the child is trying to adapt to a foreign and new environment, namely the hospital so that the condition becomes a stressor for both the child and the family (Setiawati & Sundari, 2019).

Hospitalization often creates traumatic and stressful events for children and families. The stressors that children can experience related to hospitalization can produce various reactions. In addition to the physiological effects of health problems, the effects of hospitalization on children, if it is not treated immediately, it will cause the child to reject treatment and medication (Ginting & Sembiring, 2024).

Therapeutic interventions, particularly those based on play, have been widely recognized as effective in mitigating the negative psychological impacts of hospitalization. Playing is an important part of children's lives. Thus, it is necessary to ensure holistic care during the process, including play therapy (Godino-Iáñez et al., 2020). Puzzle therapy, a form of structured play activity, holds promise as a strategy for reducing psychological distress in hospitalized children. Through engaging, age-appropriate challenges, puzzles can provide children with a sense of accomplishment, control, and distraction from the hospital environment. The cognitive engagement and problem-solving aspects of puzzles may also contribute to emotional regulation and stress reduction. Psychological distress significantly impacts overall well-being, emphasizing the need for targeted interventions to mitigate its effects during vulnerable periods (Novera et al., 2024).

Understanding the effects of puzzle therapy on psychological distress can provide valuable insights for pediatric healthcare professionals in creating targeted interventions to support the emotional wellbeing of young patients.

This study aims to explore the effects of puzzle therapy on reducing psychological

distress in preschool children during hospitalization. By understanding the impact of this intervention, healthcare providers can adopt evidence-based strategies to enhance the psychological wellbeing of young patients and improve their overall hospitalization experience.

RESEARCH METHODS

This research is experimental research with a Quasi Experimental design and with a Pretest-Posttest approach, namely a research design carried out according to a time series. In this research, the independent variable is playing puzzle therapy, and the dependent variable is the level of psychological distress. The population in this study were preschool children (4-5 years) at the Mayjen H.A Talib Kerinci Public Hospital as many as 62 cases from January-April 2023, samples were taken using purposive sampling technique, with a sample size of 16 respondenst.

RESULTS AND DISCUSSION

RESULTS

Based on the research results regarding the influence of play puzzle therapy on anxiety levels in preschool children (aged 4-5) during hospitalization at Mayjen H.A Talib Kerinci Public Hospital, the following findings were obtained:

Table 1. The Psychological Distress before play puzzle therapy in preschool children (4-5 years) during hospitalization

Variable	Pretest		
	Mean	Deviation Standard (SD)	Min-Max
Pre-test	5,20	0,852	4-6

Based on table 1, the average respondent psychological distress (pretest) before play puzzle therapy was 5.20 with a standard

deviation of 0.85 and minimum psychological distress was 4 and maximum was 6.

Table 2. The Psychological Distress post play puzzle therapy in preschool children (4-5 years) during hospitalization

Variable	Pretest		
	Mean	Deviation Standard (SD)	Min-Max
Post-test	2,80	0,60	2-4

Based on table 2, the average respondents' psychological distress (posttest) after being given play puzzle therapy was 2.6 with a

standard deviation of 0.50 and minimum psychological distress was 1 and maximum anxiety level was 3.

Table 3. The effect of play puzzle therapy regarding psychological distress levels in preschool children (4-5 years) during hospitalization

Variable	Mean	Std. Deviation (SD)	Std. Error Mean	95% CI	P Value
Anxiety	2,40	0,75	0,15	1,10- 2,70	0,001

Based on table 4.3, the statistical test results obtained using the independent t test obtained the p value = 0,001 ($p \leq 0,05$) then there was effect of play puzzle therapy on the level of psychological distress in preschool children (4-5 years) during

hospitalization at Mayjen H.A Talib Kerinci Public Hospital.

Discussion

The psychological distress before play puzzle therapy was provided regarding

psychological distress in preschool children (4-5 years) during hospitalization.

Based on research results of psychological measurement before being given play puzzle therapy was found that the average psychological distress pretest respondents were 5.20 with a standard deviation of 0.852. Puzzle game provides a distraction effect on children so that children will focus more on the game instead of the psychological distress they feel. At this preschool age, children like to play and find out new things by playing puzzle. They will focus on arranging the pieces puzzle. When they play, their attention will be diverted from the psychological distress they are feeling. The usage of the play with puzzle method apart from its many benefits, it can also give children pleasure when playing so that the psychological distress can be decrease.

The findings of this study indicate that the level of psychological distress in preschool children aged 4-5 years during hospitalization is significantly influenced by the unfamiliar hospital environment, separation from parents, and exposure to medical procedures. Prior to the implementation of puzzle therapy, most of the children exhibited moderate to high levels of psychological distress,

characterized by behaviors such as crying, restlessness, withdrawal, and refusal to engage in social interactions. These findings align with previous studies, which have reported that hospitalization disrupts children's lives and can produce feelings such as anxiety, fear, or pain. Playing is an important part of children's lives. Thus, it is necessary to ensure holistic care during the process, including play therapy (Godino-Iáñez et al., 2020). When a kid is hospitalized, either on a planned or emergency basis, they must receive treatment there and participate in a rehabilitation program until they are released. Children of all ages may experience worry and anxiety when admitted to the hospital. Children's anxiety can be managed by directing it into enjoyable play activities, thus it is anticipated that every nursing intervention will promote collaboration and the healing process. One type of play therapy that preschool-aged children can get while in the hospital is puzzle play therapy. It is thought that puzzle activities will make kids happy and help them forget their worries quite effectively (Satriana & Mulfiyanti, 2023).

The psychological distress after play puzzle therapy was provided regarding anxiety

levels in preschool children (4-5 years) during hospitalization.

Based on the results of anxiety measurement after being given play therapy puzzle was found that the average anxiety posttest respondents were 2.63 with a standard deviation of 0.50. The findings of this study highlight the impact of puzzle therapy on the psychological distress experienced by preschool children aged 4–5 years during hospitalization. Hospitalization is often a stressful experience for children due to the unfamiliar environment, separation from their family, invasive procedures, and loss of routine, all of which can lead to heightened psychological distress. These stressors manifest as anxiety, fear, irritability, and sometimes even regressive behaviors. Addressing this distress is critical for ensuring a positive hospital experience and supporting the overall recovery process.

Puzzle therapy, as a form of play therapy, offers a structured yet flexible intervention that engages children in cognitive and sensory activities. In this study, the implementation of puzzle therapy was found to significantly reduce psychological distress among the participants. This aligns with previous research, which has

demonstrated that play-based interventions can provide emotional comfort, promote a sense of control, and distract children from the stressors associated with hospitalization (Godino-Iáñez et al., 2020). By focusing their attention on solving puzzles, children experience a sense of accomplishment and positive reinforcement, which helps mitigate feelings of helplessness and anxiety.

Moreover, puzzle therapy encourages problem-solving skills, enhances cognitive development, and promotes fine motor skills, all of which contribute to psychological resilience. The interaction with caregivers or nurses during the therapy further fosters trust and emotional security, essential components of psychological wellbeing in young children (Landreth, 2012). This study's results support the hypothesis that engaging children in therapeutic play activities can reduce negative emotions and behaviors related to hospitalization. The puzzles used in this study not only engaged the children cognitively but also provided an avenue for self-expression and creativity, which are crucial for emotional regulation. Despite these positive outcomes, certain limitations of this study should be noted. The intervention's success may vary based on

individual differences such as the child's baseline psychological state, previous experiences with hospitalization, and the level of parental involvement during the therapy sessions. Additionally, the study was conducted in a controlled hospital setting, which may not fully reflect the diversity of stress responses in other healthcare environments or cultural contexts.

The effect of play puzzle therapy with psychological distress levels in preschool children (4-5 years) during hospitalization. Based on table 3, the effect of providing play puzzle therapy can be known according to the results of the research conducted by researcher. It showed that the statistical test results were p value 0.001 ($p \leq 0.05$) means that there is an influence of giving therapy puzzle on psychological distress in preschool children (4-5 years) during hospitalization at the Mayjen H.A Talib Kerinci General Hospital in 2023. The findings of this study indicate that puzzle therapy significantly reduces psychological distress in preschool children during hospitalization. Hospitalization is often a stressful experience for young children, as it disrupts their routines, separates them from familiar environments, and introduces potentially frightening

medical procedures (Coyne et al., 2016). The implementation of puzzle therapy offers a creative and interactive intervention that helps mitigate these challenges by providing a distraction and fostering engagement in a familiar and enjoyable activity.

Puzzle therapy works on multiple levels. First, it offers a sense of achievement when the child completes a puzzle, which can enhance their self-esteem and reduce feelings of helplessness (Ginsburg et al., 2007). Second, the activity encourages focus and concentration, effectively diverting the child's attention from the stressful aspects of the hospital environment (Chiatoh, 2023). Additionally, solving puzzles can facilitate parent-child interaction, which is critical for emotional support during hospitalization (Shields et al., 2012).

The reduction in psychological distress observed in this study aligns with existing research on the use of play-based interventions in pediatric care. According to Li and Lopez (2008), therapeutic play has been shown to decrease anxiety and improve coping mechanisms in hospitalized children (Li & Lopez, 2008). Similarly, Clark et al. (2013) found that structured play activities, such as puzzles,

can alleviate symptoms of distress and foster resilience in young patients (Clark, 2017).

Despite these promising results, some limitations must be acknowledged. The study's reliance on a single intervention may not fully capture the complexity of psychological distress experienced by hospitalized preschool children. Future research should explore combining puzzle therapy with other interventions, such as storytelling or art therapy, to enhance its efficacy. Additionally, the study was conducted in a controlled hospital setting, which might not fully represent real-world applications across different hospital environments or cultural contexts.

This study underscores the importance of integrating puzzle therapy as a non-pharmacological approach to reducing psychological distress in hospitalized preschool children. It emphasizes the need for pediatric healthcare providers to consider holistic and child-centered approaches in their care practices. By addressing not only the physical but also the psychological needs of young patients, puzzle therapy contributes to more comprehensive and compassionate pediatric care.

CONCLUSION AND SUGGESTIONS

Conclusion

Based on the results of the research and discussions that have been carried out, the following conclusions can be drawn that the average level of anxiety before and after providing play therapy puzzle in preschool children (4-5 years) during hospitalization was 5.20 with a standard deviation of 0.85 and 2.6 with a standard deviation of 0.50 respectively. And there was effect of play puzzle therapy on the level of anxiety in preschool children (4-5 years) during hospitalization at the Mayjen H.A Talib Kerinci General Hospital.

Suggestion

Hospitalization can be a distressing experience for preschool children, often leading to psychological distress due to unfamiliar environments, separation from family, and medical procedures. This study highlights the importance of incorporating playful therapeutic interventions into pediatric care to address the psychological needs of young patients. Further research is recommended to explore the long-term benefits and applicability of puzzle therapy in diverse clinical settings.

Puzzle therapy offers a simple, engaging, and age-appropriate intervention that has shown promise in promoting relaxation and

distraction among children. It encourages problem-solving, focus, and positive emotions, potentially reducing anxiety. Your research could provide critical

evidence on the effectiveness of puzzle therapy in a clinical setting, contributing to child-friendly approaches in pediatric care.

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