

## The Effect Of Game Therapy On Anxiety of Child Patients at The Dental Polyclinic of Besulutu Health Center in Konawe Regency

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Article Info	Abstract
<p>Article History: Received: 24 May 2025 Revised: 03 Juni 2025 Accepted: 16 Juni 2025</p> <p>Keywords: Game Therapy, Dental Polyclinic, Anxiety</p> <p>Corresponding Author: I Wayan Romantika</p> <p>Affiliation STIKes Karya Kesehatan Kendari, Indonesia</p> <p>Email: <a href="mailto:iwayanromantika@gmail.com">iwayanromantika@gmail.com</a></p>	<p><b>Background:</b> Dental anxiety is the fear that something dreadful may occur before to a dental appointment or procedure where dental anxiety increases when seeing the operator preparing equipment for a tooth extraction procedure such as forceps and syringes. Controlling anxiety is the most important thing in managing children's behavior in dental treatment. Delays in treatment can result in worsening oral disease levels and increase anxiety in children visiting the dentist. The purpose of this study was to determine the effect of game therapy on anxiety in child patients at the Dental Polyclinic of Besulutu Health Center in Konawe Regency.</p> <p><b>Methods:</b> A sample of 32 children who visited the Dental Polyclinic of Besulutu Health Center participated in the pre-experimental study using the one group pretest-posttest design approach. Unintentional sampling was the method employed for sampling. Game therapy was one of the independent variables in this study, while anxiety was the dependent variable. The Wilcoxon test was used to examine the data.</p> <p><b>Results:</b> The study's findings suggest that game therapy for children at the Dental Polyclinic of Besulutu Health Center in Konawe Regency has an impact on their anxiety levels. 0.000 was the p value that was obtained from the analysis utilizing the Wilcoxon test.</p> <p><b>Conclusion:</b> It is recommended that health centers provide policies on play therapy for children undergoing treatment either at the dental polyclinic or other polyclinics</p>

## Background

Anxiety is an unpleasant condition that can affect the behavior of patients undergoing treatment, where anxiety is the most common and important problem for dentists (Dahlander, 2019). Dental anxiety is a thought that something frightening will happen before someone makes a dental visit or treatment, where dental anxiety increases when seeing the operator preparing equipment for tooth extraction procedures such as forceps and syringes (Mathius et al., 2019).

Fear of dental and oral care worldwide has a prevalence rate of 6-15% of the total population, though it varies considerably in different parts of the world and in different sample populations. Anxiety towards dental treatment often begins in childhood with a percentage of 51% and in adolescents 22%. One of the most important parts in managing children's behavior in dental care is controlling anxiety, because unpleasant experiences will affect dental treatment, especially tooth extraction procedures in the future (Rehatta, 2018).

One effort made to address anxiety in children experiencing anxiety is game therapy, which is a nursing intervention given to children to help them during treatment and care so that healing can be accelerated through play. Through play, children can improve gross and fine motor skills, release stress and tension, help children in frightening situations or environments, and enhance the development of children's special talents and interests (Wong, 2018). Children get the opportunity to release tension they experience. As a therapeutic medium, during play children's behavior will appear free, and play is something that naturally belongs to a child. Play as therapy is one of the means used to help children face their problems. They begin to play games that contain rules. These games require practice, ability to control impulses, ability to tolerate frustration, ability to make strategies, planning, logical thinking ability, and problem-solving skills (Zellawati, 2017).

As previous research has shown, play therapy is beneficial for reducing anxiety in preschool children where during hospitalization, Playing games or engaging in play therapy has been shown to offer significant therapeutic benefits, supporting children's physical and mental health as well as their healing. Play therapy can also lessen the severity of children's negative feelings when they first arrive at the hospital and assist nurses in looking into issues pertaining to them (Nuliana, 2022).

The history of child patient visits at the dental clinic of Besulutu Health Center in Konawe Regency has decreased each year, with 88 patients in 2021, decreasing to 66 patients in 2021, and further decreasing to 47 patients in 2023, while from January to April 2024 there were 32 patients.

A preliminary study conducted on 6 families of child patients visiting the dental clinic revealed that 3 people said they only make visits when their child's tooth hurts because the child is afraid to come to the health center, while 3 others said they don't visit because their child feels uneasy when knowing they will have their teeth examined.

Based on this background, the researcher took the initiative to conduct research on the effect of game therapy on anxiety in child patients at the Dental Clinic of Besulutu Health Center in Konawe Regency.

## **Method**

The study employed a pre-experimental design with a single group pretest-posttest, enrolling 32 children who visited the Besulutu Health Center Dental Clinic. Accidental sampling is the method employed for sampling. This study includes two variables: anxiety as a dependent variable and game therapy as an independent variable. Utilizing the Wilcoxon test, data was examined.

## Results

### Karakteristik Responden

Based on respondent attributes, the frequency distribution of respondents is displayed in the following table.

**Table 1. Frequency Distribution of Respondents based on Respondent Characteristics at Besulutu Health Center**

Karakteristik Responden	n (%)	Mean±Std. Deviasi
<b>Age (years)</b>		<b>8.58±1.558</b>
6-8	11 (45.8)	
9-11	12 (50)	
12-14	1 (4.2)	
<b>Gender</b>		
Male	9 (37.5)	
Female	15 (62.5)	

Table 1 reveals that the average age of the respondents is 8.58 years, with a standard deviation value of 1.558. The majority of respondents are between the ages of 9 and 11 (a total of 12 people, or 50%), and the fewest are between the ages of 12 and 14 (a total of 1 person, or 4.2%). According to the respondents' gender, there are 9 male respondents (37.5%) and 15 female respondents (62.5%).

### Variabel Penelitian

The following table shows the respondents' frequency distribution according to the research factors.

**Table 2. Frequency Distribution of Respondents Based on Respondent Characteristics at Besulutu Health Center**

Variables	n (%)	Mean±Std. Deviasi
<b>Anxiety (<i>pre test</i>)</b>		<b>2.62±0.711</b>
Mild Anxiety	12 (50)	
Moderat Anxiety	9 (37.5)	
Severe Anxiety	3 (12.5)	
<b>Anxiety (<i>post test</i>)</b>		<b>1.29±0.464</b>
not anxious	17 (70.8)	
Mild Anxiety	7 (29.2)	

Table 2 shows that before being given game therapy, the average anxiety of respondents was 2.62 with a standard deviation value of 0.711, where the most experienced mild anxiety was 12 people (50%) and the least was severe anxiety was 3 people (12.5%), while after being given game therapy, the average anxiety was 1.29 with a standard deviation value of 0.464, where the most respondents did not experience anxiety were 17 people (70.8%) and mild anxiety was 7 people (29.2%).

### Analisis Bivariat

A test for data normality using the Shapiro-Wilk test was performed prior to bivariate analysis. 0.000 was the  $p$  value, indicating that the data is not regularly distributed. At the Dental Polyclinic of Besulutu Health Center in Konawe Regency, the data was examined using the Wilcoxon test in order to ascertain the impact of game therapy on the anxiety levels of the children's patients, which can be seen in the following table.

**Table 3.** The Effect of Game Therapy on Anxiety of Child Patients at the Dental Polyclinic of Besulutu Health Center in Konawe Regency

	Median (Min-Max)	Nilai $\rho$
Anxiety <i>pre post test</i>	1 (1-3)	<b>0.001</b>

Table 3 shows that Prior to and following game therapy, the respondents' anxiety had a median value of 1, with min-max values ranging from 1 to 3. Additionally, a  $\rho$  value of 0.000 was obtained based on the results of the Wilcoxon test analysis, indicating that H1 is accepted and H0 is rejected. This indicates that game therapy has an impact on the anxiety levels of children who visit the Dental Polyclinic of the Besulutu Health Center in Konawe Regency.

### Discussion

The findings of this study show that the respondents' anxiety before receiving game therapy had a median value of 2.5, with a minimum value of 2 and a maximum of 4. This indicates that the respondents' anxiety was in the mild, severe, and moderate categories prior to receiving game therapy. However, after receiving game therapy, their anxiety decreased, falling into the mild and moderate categories, with a minimum value of 1 and a maximum value of 2. According to the findings of earlier research, children who were overly sensitive (55%), had the highest level of anxiety prior to receiving play therapy. Because of this, children who are hospitalized may experience slower healing, less desire to recover, and disobedience to medical staff's orders, which increases the likelihood of treatment complications (Hale & Tjahjono, 2020).

In addition, the results of this study also show that the  $\rho$  value is 0.000 based on the results of the analysis using the Wilcoxon test, which means that there is an effect of game therapy on the anxiety of child patients at the Dental Polyclinic of the Besulutu Health Center in Konawe Regency because respondents who were given game therapy before had moderate anxiety and after being given game therapy did not have anxiety because they focused on playing games.

According to Hale and Tjahjono (2020), this study supports earlier research that demonstrated the impact of play therapy on the anxiety levels of children admitted to the William Booth Hospital in Surabaya's Mirah Delima Room. Play therapy, which involves coloring, is an alternative practice that hospitals can use because it is tailored to the needs and development of the patients. The degree of anxiety that children experience prior to circumcision can be impacted by video game treatment (Pamuja et al., 2021).

Theory shows that play therapy is part of child care which is an effective intervention for children to reduce or prevent anxiety before and after surgery for the growth and development of children. (Nursalam, 2020). Numerous elements, including the new surroundings, the family members who are with them throughout treatment, and the personnel (nurses, physicians, and other health professionals), might affect the reasons of anxiety, where anxiety that occurs in children can slow down the healing process, reduce their enthusiasm for recovery and make them uncooperative with the treatment measures given (Supartini, 2020).

The researcher's assumption regarding the research results is that a child's anxiety in a health check including a dental health check in a polyclinic can be reduced by giving the child game therapy that from the beginning felt anxious or afraid reduced after playing the game. The implications of the results of this study for nursing science are that it can be used as a reference in providing nursing care for children who undergo dental check-ups in a dental polyclinic.

### Conclusion

Game therapy has been found to have an impact on the anxiety levels of children who visit the Dental Polyclinic of Besulutu Health Center in Konawe Regency, according to the study's findings.

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