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COMPACT Application : Effect Of Hypnocommunication On The Level Of Anxiety Among Children With Cancer

Fitrianola Rezkiki¹, Imelda R. Kartika², Cory Febrina³, Fika Maysita⁴

^{1,2,3,4}*Nursing Fort De Kock University, Bukittinggi, Indonesia*

Corresponding author: fitrianola.rezkiki@fdk.ac.id

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ABSTRACT

The incidence of cancer in children is quite high, estimated at around 2% - 4% worldwide. The most common type of cancer in children is leukemia (blood cancer), accounting for 664 cases (27.3%). This condition can significantly impact both the physical and psychological health of children with cancer. Facing such a life-threatening disease at a young age can cause considerable anxiety in these children. Hypnocommunication contained in the COMPACT application (Communication On Paliatif care Treatment) is one form of effort that can be done by children with cancer to help reduce the level of anxiety. Purpose: This study aims to investigate Hypnocommunication therapies in the COMPACT Application on anxiety in children with cancer. The research method used is quantitative Quasi-Experimental with a one-group pre-test, post-test design. The population consists of children with cancer at Cahaya Community Foundation, Padang City, with a sample size of 20 participants for Hypnocommunication therapy. Data collection was computerized, and analysis was performed using dependent t-test. The results of data analysis show that the average anxiety level of respondents before receiving Hypnocommunication therapy was 44.30 (mild anxiety), which decreased to 40.70 (mild anxiety) after therapy. In conclusions, it can be concluded that interventions effectively reduce anxiety levels in children with cancer, with a p-value of 0.001. Therefore, it is recommended that children with cancer and the Cahaya Community Foundation, Padang City, using the COMPACT hypnocommunication application as an intervention to manage anxiety.

Keywords: Hypnocommunication, Anxiety, Children with Cancer



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Introduction

Cancer is a disease that is very feared, this is due to the high number of deaths, especially in children, caused by cancer. Cancer in children is a fairly complex problem because not only children have to bear the burden but parents also feel what the child feels. One type of cancer that is often found in children is blood cancer, bone cancer, neuroblastoma, retinoblastoma (Nurhidayah et al., 2016).

The incidence of cancer in children is estimated at 2%-4% in the world. Based on data from the International Agency for Research on Cancer (IARC 2018), it states that 1 in 600 children in the world experience cancer under the age of 16 and 80% of children diagnosed with cancer come from developing countries. According to (Steliarova Foucher et al, 2017) an estimated 100,000 children in the world die from cancer each year. Meanwhile, in Indonesia, cancer cases increased to 1.8% in 2018. West Sumatra Province is the second most cancer-sufferer area in Indonesia after DIY, which is 2%. According to the West Sumatra Provincial Health Office (2020), it was found that Acute Lymphoblastic Leukemia (ALL) throughout 2020 increased by 70%.

Dupuis (2016) explains that the most common symptom experienced by children with cancer is anxiety. According to Coyne & Coylon (2017), anxiety experienced by children is caused by children feeling unsafe, not understanding how the treatment procedure will be carried out, not knowing the people around them, bored because they cannot play like other friends, cannot express their feelings and do not have privacy (Putriani, 2016). Anxiety reactions in children with cancer appear when the child is diagnosed with cancer for the first time, but continue to continue in the treatment process that will be

undergone and will then affect the child's response during chemotherapy. Children with cancer complain of fear, sadness, and worry if something worse happens to them (Putri et al., 2020).

The level of anxiety experienced by children with cancer varies greatly. Putranti's (2016) study stated that the level of anxiety in children with cancer was 71.4% of respondents had moderate anxiety and 28.6% of respondents had mild anxiety. Research conducted by Nuwa & Kiik (2020) showed that as many as 73.3% and 26.7% of pediatric patients who had severe and moderate anxiety, during the pre-test the anxiety became moderate 56.7% and mild anxiety 43.3% and when the measurement was carried out 30 minutes before chemotherapy with the end of the measurement being at mild anxiety 63.4% and 33.3% mild anxiety and the remaining 3.3% still experienced severe anxiety.

Management of anxiety in children can be done by giving pharmacological and non-pharmacological therapy. Some examples of pharmacological treatment are alprazolam, lorazepam, diazepam, clobazam. While non-pharmacological therapy can be given in the form of music therapy, fuzzle play therapy, relaxation therapy, storytelling therapy, drawing therapy, murottal therapy, and hypnocommunication (Hermanto et al., 2020). Based on Erikson, Gunawan (2006) hypnocommunication is a combination of hypnosis and therapeutic intervention. Hypnokomunikasi is a therapy that integrates positive suggestions in therapeutic communication (Rezkiki et al., 2022). Therapists in this case can guide children to have positive changes to reduce anxiety, when the child experiences deep relaxation where the condition is very easy to do to insert suggestions.

Adrienn K. Szilagyi at the "World Hypnosis Congress XXI" in Montreal 2018



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presented his research on the effectiveness of Hypnocommunication in treating critically ill patients in the ICU with the result that 74% of the intervention group (given Hypnocommunication) survived, while the control group survived by 54%. (Reziki et al., 2022). Khairi's research (2024) stated that hypnocommunication is effective for the sleep quality of children with cancer. The same thing was also expressed by Novalia et al. (2022) that hypnocommunication therapy is very effective in treating health problems such as sleep disorders. And Iswanto et al. (2020) said that hypnosis therapy has been proven effective in reducing symptoms experienced by children undergoing cancer treatment.

While there have been limited studies explaining a hypnocommunication, to our knowledge, there is no study examining the effects of hypnocommunication on anxiety in children with cancer. Understanding hypnocommunication on anxiety is needed to improve strategies for managing anxiety in children with cancer, as well as to provide information for nurses and other health care providers to be able to apply hypnocommunication to dealing with children with cancer who are anxious. Although little is known about hypnocommunication, it is important to obtain new intervention findings that can help manage children with cancer, thus allowing these findings to contribute to the body of knowledge in pediatric nursing and complementary nursing.

Based on these problems the researcher creates a technology -based application, namely the Compact (Communication on Palitive Care Treatment) application. The application describes several communication therapies in guarding cancer patients. One of the treatment is hypnokomunikasi in order to help reduce the anxiety of patients in undergoing the disease process. Compact applications are made to facilitate the use of technology in overcoming anxiety. This

application is made in collaboration with multidisciplinary sciences namely the Faculty of Health and Programmer IT so as to create applications with significant benefits in overcoming problems in the foundation, especially in the management of cancer patients. Therefore, the purpose of this study was to determine the effect of hypnocommunication on anxiety in children with cancer.

Research Method

This research uses a quasi-experimental design with a one group pre-test post-test approach. The intervention in this study was using Hypnocommunication Therapy in the COMPACT application. The intervention is used to determine the patient's anxiety condition and anxiety intensity as measured by the SCAS (Spense Chidren's Anxiety Scale). Researchers conducted research by starting an interview for consent to become a respondent and accompanied by an explanation of the purpose of providing therapy. Hypnocommunication therapy begins by measuring the child's anxiety level (pre-test). Researchers conducted research by starting an interview for consent to become a respondent and accompanied by an explanation of the purpose of providing therapy. Therapy is carried out for 12 minutes, once a day for five consecutive days. Then the child's anxiety level (post-test) was repeated after being given therapy.

A purposive sampling technique was employed to recruit the respondents. Data were collected in West Sumatera Province, specifically at the Cahaya Community Cancer Foundation, Padang. Twenty child with cancer participated in this study. Inclusion criteria were : 1) Child patient after being diagnosed with cancer for more than one month; 2) Children aged 6-15 years; 3) Able to follow the intervention given well. The exclusion criteria were that the child with cancer was lying

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weakly in the bed at the time the intervention was to be given.

After securing ethical approval, researchers submitted the letter to the foundation setting to request permission to collect the data. After the granting of permission from the foundation, the researchers were given access to meet for the recently admitted child patients and asked for consent from the children's parents. For those who were willing to participate, the researcher made an appointment to meet the parents to provide a written respondent information sheet and explain verbally the details of the study, including the purpose of the study, the risks and benefits of participating in the study, and how the data would be collected through an intervention. An appointment for an intervention was made after the parents agreed for their child to participate. Those who agreed to participate in the study were invited to sign informed consent before the intervention.

Intervention began by measuring the respondents' anxiety using the SCAS (Spense Children's Anxiety Scale) instrument. Then the respondents took a comfortable position and created a calm environment. Respondents were given hypnocommunication therapy by listening to hypnocommunication audio for 12 minutes using COMPACT Application. This therapy was given once a day for 5 consecutive days. And after that the respondents' anxiety will be measured again with the same instrument. Data were collected between August and September 2024.

The analysis used in this research is a description of the characteristics of respondents with a frequency distribution. In this study, a normality test was used to determine whether the data obtained was normally distributed or not. From the normality test, it was found that the data was normally distributed, this can be seen from the results of the Shapiro Wilk normality test which is marked with a p-value > 0,05. Data were analyzed using a dependent t-test to see the level of anxiety in children with cancer before and after being given hypnocommunication. The result of the dependent t-test was 0.001, which means that there is a significant effect of hypnocommunication on reducing anxiety in children with cancer (p.value <0.05).

Prior to data collection, ethical approval of this study was obtained from the Research Ethics Committee of a educational institution in West Sumatra Province, Indonesia, with the ethical approval number 164/KEPK/VIII/ 2024. Respondents' parents were informed that their child participation was voluntary and that there would be no penalty if they wished to withdraw their participation at any time before data collection was completed. They were requested to sign informed consent after being fully informed about the study. Their names and identities are kept confidential.

Results and Discussions

This research produced the characteristics of respondents which can be seen in the table below :

Table.1 Characteristics of respondents (N=20)

Variable	Frequency	Percentage (%)
Gender		
Male	9	45
Female	11	55

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Age		
6-10 y.o (school age)	12	60
11-15 y.o (early teens)	8	40
Type of Cancer		
Retina Blastoma	2	10
Leukemia ALL	14	70
Leukemia AML	1	5
Leukemia LGK	1	5
Osteosarcoma	2	10

Table 1 informs that the respondents were predominantly female (55%), and the majority of children were in the school age range (60%). The cancer that most children experience is Leukemia ALL (70%). The anxiety level of each individual is different. Gender, age, and even psychological a person can affect the

level of anxiety. Age is a biological factor of anxiety that cannot be changed. The prevalence of anxiety occurs more at an older age. The more age there will be changes and components of the perspective addressing a disease (Jannini et al., 2024).

Table 2. The Effect of Hypnocommunication therapy based to reduce the anxiety

Variabel	n	Mean	Standar Deviasion	Mean Difference	P-value
Before	20	42,20	5,791	1,65	0,001
After	20	40,55	5,735		

This study found that children with cancer experienced mild anxiety. Before being given Hypnocommunication, the description of children's anxiety included; (55%) children felt more restless than usual, (49%) children felt afraid for no apparent reason, (54%) children felt panicked, (44%) children's hands and feet trembled when chemotherapy was about to be performed, (44%) children felt their hearts beating hard and fast, (44%) children often experienced dizziness, and (43%) children urinated more often than usual.

The level of anxiety in children with cancer is influenced by their thoughts. Anxiety comes from an uneasy mind, feeling unsafe in

an unusual place, and feeling threatened. The anxiety felt by children with cancer is normal, there are many things they cannot do like healthy children in general, namely, eating any food, being able to play freely. While children with cancer can only play at home while continuing to undergo treatment and check ups at the hospital (Azwardi et al., 2022)l.

Hypnocommunication comes from the words "Hypnotic" and "Communication" which means hypnotic communication. Hypnocommunication is one of the complementary nursing therapies that aims to instill positive suggestions in individuals in a state of relaxation to overcome various health



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disorders (Rezkiki et al., 2022). Meanwhile, Adiningtya & Prasetyorini (2024) stated that Hypnotherapy can be used to eliminate some of the patient's bad habits or to maintain a calmer state within him. Words of suggestion become a dominant force that cannot be rejected. Through active direction of psychic conditions and behavior, the patient can be controlled.

Hypnocommunication therapy in this study has been proven to be effective in reducing anxiety in children with cancer. The decrease in anxiety levels after Hypnocommunication therapy is a technique in influencing others to enter a trance hypnosis state (Ahmad et al., 2020). The feeling of relaxation will be transmitted to the hypothalamus to produce Corticotropin Releasing Hormone (CRH) and Corticotropin Releasing Hormone (CRH) activates the anterior pituitary to secrete enkephalin which acts as a neurotransmitter that affects mood so that it becomes relaxed and calm (Nugraha & Adisaputro, 2017).

This is in line with research (Iswanto et al., 2020) evidence of hypnosis or giving positive suggestions can help reduce anxiety levels with several studies and measuring instruments used in each study related to hypnosis. Very deep hypnosis and a high level of suggestibility will provide a significant hypnotic effect on reducing anxiety in cancer patients. The effectiveness of

hypnosis greatly influences the source of the stressor, where hypnosis works to create a relaxed mood and helps to create a sense of comfort in the body which helps the process of reducing anxiety, but hypnosis can be influenced by the source of the stressor. The higher the level of stressor, the more it will affect hypnosis in cancer patients.

COMPACT (Communication On Palliative Care Treatment) android-based application helps to facilitate children with cancer in accessing audio hypnocommunication. COMPACT is one of Digital health or more often referred to as telehealth, is the use of telecommunications to provide information and health services with a wide scope with the aim of improving public health efforts (Sunjaya, 2019). The concept of using telehealth in the curative field is not something foreign in Indonesia. The use of telehealth brings many benefits (Jannah et al., 2021). COMPACT tries to manage information on health disorders in cancer patients, especially physical, psychological and spiritual disorders. In this study, COMPACT helps overcome psychological disorders of anxiety in children with cancer through audio hypnocommunication. COMPACT's rapid access to quality health information and services will improve health management, especially self-management of children with cancer.

application can be utilized by children with cancer and their families to overcome the anxiety they feel. And to the foundation to be able to continue the utilization of this application so that it can be used in order to improve the health of children with cancer and their families in health services or at home.

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Conclusion

The COMPACT application is a development of health technology (telehealth) that focuses on palliative care conditions, especially cancer patients. One of the therapy menus offered by COMPACT is audio hypnocommunication which has been proven effective in reducing the level of anxiety in children with cancer. Hypnocommunication in COMPACT can be used anytime, anywhere, and is easily accessible. Thus, it is hoped that hypnocommunication in the COMPACT

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Conflic of Interest

There are no conflicts of interest that occurred during the study.

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