



## Original Research

# The Effect of Therapeutic Communication on the Anxiety Level of Children Undergoing the COVID-19 Vaccination

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### ABSTRACT

**Background:** Anxiety is often encountered in society, especially in children, when undergoing the COVID-19 vaccination. Anxiety is a factor influencing children to refuse vaccination. Therefore, nurses need to reduce this level of anxiety through the application of therapeutic communication. This research was carried out to determine the effect of therapeutic communication on children's anxiety levels during the implementation of the COVID-19 vaccination.

**Methods:** A pre-experiment design with a one-group pretest-posttest design was used on 58 respondents who were selected using a simple random sampling technique. The research instrument used was the Zung Self-Rating Anxiety Scale (SAS/SRAS) questionnaire with a Likert scale model, and the results were analyzed using the Wilcoxon Signed Ranks Test statistical test.

**Results:** The results of the Wilcoxon Signed Ranks Test analysis on respondents' anxiety levels showed that there was a decrease in anxiety after therapeutic communication was carried out with a p-value of 0.00 ( $p < 0.05$ ), which means that therapeutic communication had a significant influence on the anxiety level of children undergoing the COVID-19 vaccination.

**Conclusion:** Therapeutic communication can effectively reduce the anxiety level of children undergoing COVID-19 vaccination.

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## INTRODUCTION

The COVID-19 vaccination program is a strategic effort proven to be the key to ending the pandemic by reducing mortality and morbidity rates and developing immunity against the COVID-19 virus (Nugroho & Hidayat, 2021). Unfortunately, to be well received and distributed to the wider community, this vaccine program requires a longer process, as many people are still worried about its effectiveness and safety, as well as the factors and causes that influence the acceptance of the COVID-19

vaccination in the community. Based on a survey conducted by the Ministry of Health of the Republic of Indonesia and the National Immunization Expert Advisory Committee (ITAGI) with the support of UNICEF and WHO in September 2020, the COVID-19 vaccination program in Indonesia was carried out, involving 115,000 respondents, but the results showed that there were still many people who felt hesitant and even refused vaccination for various reasons (Kemenkes RI et al., 2020).

The reasons for refusing vaccination are quite varied, ranging from anxiety about the side effects of the vaccine and feeling afraid about the safety of the vaccine to the influence of religious beliefs on the vaccine (Kemenkes RI et al., 2020). The amount of information regarding COVID-19 cases and vaccines has greatly influenced people's anxiety. Public anxiety can have an impact on reducing a person's immunity and a person's acceptance of the COVID-19 vaccine. Apart from that, public trust in the government regarding the safety of the vaccine is still lacking.

Various myths and hoaxes circulating regarding the COVID-19 vaccine are some of the factors that encourage people's doubts about getting vaccinated (Iskak et al., 2021). The same anxiety and fear also arise among children. This can be influenced by children's imaginations, which often respond to sensitive and scary things such as bad information, needles, pain, and other scary things. So this can cause reactions including crying, hitting, screaming, holding back, running away, shortness of breath, and even fainting when immunization is being carried out (Suartini & Andriani, 2019).

Anxiety in children is a challenge for health service providers. Health workers are required to be able to reduce anxiety in children through therapeutic communication techniques, an interaction that occurs not only between nurses and clients but also with other members of the healthcare team. This communication is more commonly used for purposes that focus on clients who need help so that nurses actively listen and pay attention to clients by showing responses such as being willing to accept and understanding so that they can encourage clients to talk openly about themselves. Therapeutic communication in school-aged children has different techniques compared to adult communication. If adults only need to be asked about their health and smiled at, communication with children requires more questions about things they like, such as their playing activities.

They also need to be more coaxed and praised when medical procedures are carried out. For this reason, nurses must ensure that all communications are indicated for both the giver and recipient of the message. Therapeutic communication has to be demonstrated by creating mutual understanding, which must be done first before giving advice, information, and input. This technique can reduce children's anxiety by providing an understanding of action and education and also diverting their attention from the process of administering the COVID-19 vaccine to other things such as chatting, playing, counting, and so on (Novikasari et al., 2019).

In Indonesia, there have been several research studies about anxiety during the COVID-19 vaccination. However, research focusing on techniques for reducing anxiety through therapeutic communication, especially in school-aged children, is still rare. Therefore, this study aims to determine the effect of therapeutic communication on the anxiety level of school-aged children undergoing the COVID-19 vaccination.

## **MATERIALS AND METHOD**

### **Study Design**

A pre-experimental design with a one-group pretest-posttest design was used in this research by comparing the anxiety levels of groups of respondents before and after therapeutic communication as they underwent the COVID-19 vaccination program.

### **Sample and Settings**

The population in this study were fourth- and fifth-grade elementary school students. The research was carried out on 58 elementary school students who were selected using simple random sampling techniques. Data collection was carried out at the Muhammadiyah Special Program elementary school in Belimbing, Gatak, Sukoharjo, Central Java, during the implementation of the COVID-19 vaccination program from April 14 until April 20, 2022.

### **Instrument**

The instrument for therapeutic communication treatment in this research uses Standard Operating Procedures with the aim of helping clients explain their health problems so that they can reduce the burden of feelings and thoughts, take action to change the existing situation if the client believes in what is needed, and guide the course of communication between researchers and clients. The anxiety measurement tool used is the Zung Self-Rating Anxiety Scale (SAS/SRAS) questionnaire, which consists of 20 questions with a Likert method measurement scale model with the hope that it can be selected according to the respondent's condition. The Zung Self-Rating Anxiety Scale is an anxiety questionnaire designed by William W.K. Zung that was developed according to the symptoms of anxiety in the Diagnostic and Statistical Manual of Mental Disorders (DSM-II). The validity test of the Zung Self-Rating Anxiety Scale (SAS/SRAS) questionnaire showed that this questionnaire was valid with an r-value of 0.454 to 0.454. 0.771 ( $r_{\text{count}} > r_{\text{table}}$  0.444). Meanwhile, the questionnaire reliability test showed a Cronbach Alpha value of 0.711 ( $>0.6$ ), which proves that this questionnaire is reliable.

### **Data Collection**

Prior to the study, participants provided their informed consent by signing a form provided by the research team, which also included an explanation of the research's purpose and procedures. The consent was signed by the respondent's guardian, considering that the respondent's age was still in the school age range. Ethical clearance, numbered LB.02.02/1.1/693.6/2022, was obtained before commencing the study. The implementation of data collection began with screening respondents and a pre-test to determine the respondent's anxiety level. On the following day, researchers gave information and education regarding the COVID-19 vaccination and its benefits using a therapeutic communication method approach to children. On the last day, researchers conducted a post-test to measure the respondents' level of anxiety after being given the intervention.

### **Statistical Analysis**

The data obtained from the data collection stage was processed using the SPSS 25 program. The results of univariate analysis are presented in the table of frequency and percentages for categorical data, the means of the minimal-maximum, and the standard deviation for numeric data. Meanwhile, the results of bivariate analysis using the

Wilcoxon Signed Rank test to determine changes in pre- and post-intervention anxiety levels are presented in a table of ranks, means, and significance.

## RESULTS

The average age of respondents was  $10.47 \pm 0.503$  years old, with the majority of respondents being men (60.3%). The pre-intervention level of anxiety was mild (39.7%), and the post-intervention level of anxiety was normal (Table 1).

**Table 1.** Respondents Characteristic (n=58)

Characteristics		Frequency (%)	Means $\pm$ SD	Min-Max
Age	-	-	10,47 $\pm$ 0.503	10-11
Gender	Male	35 (60.3%)	-	-
	Female	23 (39.7%)	-	-
Pre Intervention Anxiety Level	Normal	14 (24.1%)	-	-
	Mild	23 (39.7%)	-	-
	Moderate	20 (34.5%)	-	-
	Severe	1 (1.7%)	-	-
Post Intervention Anxiety Level	Normal	37 (63.8%)	-	-
	Mild	18 (31.0%)	-	-
	Moderate	3 (5.2%)	-	-
	Severe	0 (0.0%)	-	-

The result of the analysis of pre-and post-intervention anxiety level changes is presented in Table 2.

**Table 2.** Changes in Respondents Anxiety Levels Pre and Post Therapeutic Communication (n=58)

Characteristics	n	Negative Ranks	Positif Ranks	Ties	Mean Rank	Sig.(2-tailed)
Pre test	58	56	0	2	28,50	0,000
Post test	58					

The results of the Wilcoxon Signed Ranks Test on the pre-test and post-test of anxiety level during the implementation of vaccination showed a significance value of 0.000 and a mean rank of 28.50. Based on the results in Table 2, the negative rank was 56, which means there were 56 respondents who experienced a decrease in their scores on their anxiety level from pre-test to post-test, and the positive rank results were 0, which means there were no respondents who experienced an increase in their scores on their anxiety level. respondents from pre-test to post-test, and the tie result was 2, which means there were 2 respondents who had the same score on the respondent's anxiety level from pre-test to post-test.

## DISCUSSION

The average age of respondents is 10.47 years. According to Akhriansyah (2018), school-age children rely more on past experiences that can guide them. However, it depends on the quality of the child's past experiences; for example, a child who appears shy or hesitant during a health assessment. Often, the child may be afraid of getting hurt

or feel embarrassed when examined. So it takes time to obtain peace and privacy (perhaps from parents) to help children communicate.

The characteristics of school-age children have a way of hanging out with their peers in groups. The cognitive development of children at this age has entered a concrete stage, namely that children have begun to look realistically at their world environment, and the process of conveying information to school-age children requires efforts to group and choose the right signals to help communication between the sender and recipient of the message so that they understand each other's words (Tewuh et al., 2013).

Most of the respondents in this study were male. The results of this research are in line with the research results of Hadi et al., (2022) which found that the majority of respondents who experienced anxiety were male. The results of this research were also confirmed by Tewuh et al., (2013) who found that males are more likely to experience anxiety. Even though the results of this study show that men experience anxiety more than women, this difference is not significant because these results are not in accordance with the literature, which says that women experience anxiety more easily than men because women have a stronger response to stimuli and stimulation, which is stronger compared to men, who tend to be stronger in viewing reality (Simaremare et al., 2018).

According to Hayati et al., (2022) boys are required to be brave in facing challenges in everything that comes before them. In whatever conditions, boys must be ready to face unexpected things in order to be educated as strong children. As for girls, they will receive treatment from their parents from childhood to adolescence, where parents will provide care for the girls with tenderness and affection. Parental overprotective treatment also makes girls tend to be melancholic compared to boys.

The results of the research that has been conducted show that the majority of respondents experienced a mild level of anxiety before being given therapeutic communication (39.7%). Meanwhile, the results of the research after being given therapeutic communication showed that the majority of respondents did not experience anxiety or were normal: 37 respondents (63.8%). So the results of this study show that respondents who do not experience anxiety or are normal are more dominant, and this is because respondents have been given therapeutic communication.

This data shows that there are differences in anxiety levels before and after therapeutic communication intervention. This result is in line with research conducted by Aniharyati and Ahmad, (2019) which stated that there is an influence of providing therapeutic communication on the anxiety level of school-age children when undergoing hospitalization because before children are given therapeutic communication during hospitalization, they will experience activity restrictions that make the child feel worried, anxious, and losing control while undergoing treatment. Meanwhile, for children who have been given therapeutic communication by approaching it through a close relationship and meeting the child's desired needs, the child's response will be more open and easier to convey health information. It is also confirmed by Simaremare et al., (2018) who showed that the majority of children experienced a mild level of anxiety when undergoing a tooth extraction, which means that the child showed symptoms such as restlessness, sweating, tension, stiffness, trembling, weakness, and avoidance. Because the anxiety experienced by a child is sensitive, is influenced by the subconscious, and needs to be communicated intrapersonally (Hayati et al., 2022).

Children undergoing treatment in hospitals will experience many problems, both related to pain and anxiety, that arise when facing environmental situations and

procedures (Tewuh et al., 2013). According to Praghlapati et al., (2019) changes in the physical environment of a room, such as a COVID-19 vaccination site and loud noises around it, can make children feel disturbed and cause anxiety. So some changes in the physical environment can make children feel strange.

The results of the comparative analysis of anxiety levels before and after the intervention showed that there was a significant change in anxiety levels among research respondents. The results of this research are supported by Tewuh et al., (2013) Hospitalization. Hadi et al., (2022) also have similar results where there is an influence of therapeutic communication on children's anxiety when undergoing tooth extraction with a significance value of 0.041 ( $p < 0.05$ ). Therapeutic communication is useful for clarifying and helping respondents reduce the burden of thoughts and feelings and be able to act to change the situation if they believe in it.

The aim is to reduce anxiety and doubt and help maintain their ego (Hadi et al., 2022). Effective therapeutic communication can be used by paying attention to attitudes, knowledge, and psychology so that efforts to overcome various problems in patients can be resolved. This interaction can be useful in the patient's healing process, and the atmosphere of mutual trust created by nurses can facilitate the treatment process (Nofriadi et al., 2021).

A nurse can have quite a big influence on patients when carrying out nursing actions because, in achieving the desired action goals, a nurse should have sufficient knowledge, attitudes, environment, and experience (Sasmito et al., 2019). Nurses who listen attentively to their problems and fulfill their needs are the most effective techniques for interaction, namely therapeutic communication (Fandizal et al., 2020).

## **CONCLUSION**

The research highlights a significant decline in anxiety levels in children undergoing the COVID-19 vaccination after therapeutic communication. This shows the effect of therapeutic communication on changes in the anxiety level of children undergoing vaccination. However, this research still has limitations that can influence the results, such as the gap of days between the assessment and evaluation of anxiety levels and the implementation of therapeutic communication, making it possible for other factors to influence the respondents' anxiety levels. In future research, it is hoped that therapeutic communication can be provided on the same day as assessing and evaluating anxiety levels to minimize the influence of other confounding factors.

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