

Original Articles

Relaxation and Distraction Techniques for Reducing Anxiety in Patients with Circumcision

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Abstract

Background: Relaxation and distraction are nonpharmacologic techniques in the therapy of anxiety. In circumcision patients, the experience of anxiety is felt by the patients, either children or adolescent.

Objective: The study aimed to compare between relaxation and distraction technique in reducing anxiety in circumcision patients.

Methods: The study design was a pre-experimental two-group pretest-posttest research design. Total 36 respondents on this study that divided equal to two group (relaxation group and distraction group). The respondents have been assessed their anxiety level before and after the intervention (pre-test and post-test for each group). The instrument of anxiety was Hamilton Rating Scale for Anxiety (HARS). The statistics test used Wilcoxon Signed-Rank Test.

Results: The Wilcoxon Signed rank test results for relaxation group was in a Z statistic of -3.317 which results in an exact p value of .001; and the results for distraction group was in a Z statistic of -2.449 which results in an exact p value of .014.

Conclusion: There was different result between relaxation and distraction group that showed relaxation group reducing anxiety in higher score of a Z statistic compared with distraction group. However, those technique were effectively in decreasing the anxiety level of circumcision patients.

INTRODUCTION

In recent years, circumcision has undergone many developments, including the method that prioritizes patient comfort. However, circumcision is still categorized as a minor surgical procedure which causes pain after the procedure (Prasetyono, 2010). This reason leads patients to feel anxious, especially in the face of pre-circumcision surgery.

Compared with performing circumcision on younger children, the performing circumcision of the child > 1-year-old is more at risk of being affected psychologically by the procedure (Bicer et al, 2015). The anxiety perception in children may affect the quality of surgery. In the clinic, "Rumah Khitan Sarirogo Sidoarjo", most of the children who will perform circumcision in that place experience problems such as fear, crying, refuses to enter the room and asking their parents to accompany them when they want to enter the room. This shows the problem in children who will do circumcision in the clinics.

Anxiety is a feeling of fear and worries about something that may not be obvious. Techniques to reduce anxiety can be of various kinds, including distraction and relaxation techniques (Ramaiah, 2003). Relaxation can be interpreted as a technique used to deal with stress where there will be an increase in blood flow so that feelings of anxiety and worry will decrease. The distraction technique is a technique that is done by diverting the patient's attention to things that are pleasant according to the patient, in contrast the relaxation technique is a deep breathing technique that is carried out to make the patient more relaxed so that the patient's anxiety is expected to decrease (Darlina, 2006; Dio, 2017).

Based on the things mentioned above, the authors are interested in examining the distraction and relaxation techniques on reducing anxiety levels in patients with circumcision.

METHODS

Study Design

The study design was a pre-experimental two-group pretest-posttest research design.

Settings

The research was conducted at "Rumah Khitan Sarirogo Sidoarjo" in December 2021.

Research subject

The respondents were patients > 5 years old and undergoing circumcision. The respondents and their parents have informed that their participation in the study was voluntary, and each participant with the parents signed a consent form indicating her willingness to participate in the study. Total 36 respondents on this study that divided equal to two group (relaxation group and distraction group).

Instruments

The instrument of anxiety was Hamilton Rating Scale for Anxiety (HARS). Anxiety scale consists of four levels: normal or no anxiety (0–9), mild to moderate anxiety (10–18), moderate to severe anxiety (19–29), and severe anxiety (30–63) (Stuart, 2009).

Data collection

The researcher did the intervention for the respondents based on the procedure instrument used in the clinic. The intervention was relaxation and distraction. For the relaxation group, the researcher explained the relaxation purpose to the respondents and their parents, then demonstrated the deep breathing technique (breath in deeply and slowly through the nose, hold for a count of 3 to 5, and breathe out slowly and entirely through pursed lips) while focusing on breathing. For the distraction group, the researcher explained the distraction purpose to the respondents and their parents, and then asked patients to watch the movie for about 5 minutes.

Data Analysis

In this study, the researcher used the Wilcoxon signed-rank test with a significant value of .05.

Ethical Consideration

Permission to conduct the study was obtained from the head of the clinic.

RESULTS***Characteristics of Respondents***

Total of respondents of this study was 36 person that divided to two group. The characteristic of respondents showed on the Table 1.

Table 1. Distribution of Frequency of Respondents by Age and Born As in the Rumah Khitan Sarirogo Sidoarjo on December 2021 (n = 36).

Characteristics	Number	Percentage (%)
Age (years old)		
5 – 7	12	33.3
7 – 9	7	19.4
9 – 11	10	27.9
> 11	7	19.4
Born as		
1 st kid	14	38.9
2 nd kid	3	8.3
3 rd kid	9	25.0
> 3 rd kid	10	27.8

Based on the table above, it was found that most of the respondents in this study were aged 5-7 years with 12 respondents (33.3%) and 14 respondents (38.9%) being first children.

Examination of the Comparison between Relaxation and Distraction Technique in Reducing Anxiety in Circumcision at the Rumah Khitan Sarirogo Sidoarjo on December 2021 using Wilcoxon Signed-Rank Test.

Comparison the anxiety level on both relaxation group and distraction group that assessed before and after the intervention as showed on Table 2.

The Wilcoxon signed-rank test was used to compare of relaxation and distraction technique in reducing anxiety level. The *p*-value of relaxation group was .001 (Z statistic = -3.317) and distraction group was .014 (Z statistic = -2.449).

Table 2. Examination of the Comparison between Relaxation and Distraction Technique in Reducing Anxiety in Circumcision at the Rumah Khitan Sarirogo Sidoarjo on December 2021 using Wilcoxon Signed-Rank Test.

	Relaxation Group		Distraction Group	
	Pre-test	Post-test	Pre-test	Post-test
No Anxiety	2	5	0	2
Mild Anxiety	7	10	12	13
Moderate Anxiety	7	3	5	3
Severe Anxiety	2	0	1	0
Z statistic	-3.317		-2.449	
Asymp Sig. (2-tailed)	.001		.014	

DISCUSSION

Based on Table 2, it found that more than half experienced mild-moderate anxiety before receiving the intervention. Anxiety is a normal reaction to situations that are very stressful for a person's life and therefore lasts for a short time. Age is one of the internal factors that contribute to feel anxious. The older age might more mature a person's psychology, and then would be better in adapting anxiety (Sumiati et al, 2013). Children who experience high levels of anxiety might cause deep trauma, and can inhibit the process of growth and development. In general, anxiety factors in children who undergo medical treatment can be divided into 3 factors: children, parents and environmental factors (Ramainah, 2003). The younger the child's age, the more difficult it is to adjust to the new environment; which is an unfamiliar environment and procedure of action.

Seveal ways can be done to reduce anxiety in patients, one of which is relaxation. The purpose of using relaxation techniques in nursing interventions is to divert or keep the client's attention away from something that is being faced, such as pain (Darlina, 2006). While the benefits of this technique are that someone who receives this technique more comfortable, relaxed, and feels in a pleasant position. Relaxation technique was used on patients with chronic disease to increase comfort through maintaining the respiratory process (Wibrata et al, 2019).

Another intervention to reduce anxiety is a distraction. Distraction is a reticular activation system that can inhibit a painful stimulus if a person receives sufficient or excessive sensory input. Distraction is an activity to divert the client's attention to other things and thus can reduce fear of pain and can even increasing tolerance to pain (Potter & Perry, 2012). There are several kinds of distraction techniques such as visual, auditory, respiratory, and intellectual (Sumiati et al, 2013). From the study results conducted on 15 children to be performed in circumcision surgery (Dio, 2017), it was the provision of visual distraction techniques for cartoon films that effectively reduced their anxiety level (before intervention was 1.73 after the intervention was 1.27, and statistical test results the *p*-value of .004).

According to comparison results between the two techniques as in Table 2, the anxiety level of the relaxation group (pre and post) was -3.317, and significant p -value of .001 ($< .05$); and the anxiety level of the distraction group (pre and post) was -2.449 and significant p -value of .014 ($< .05$). Both techniques were effective in reducing the anxiety level of the patient with circumcision surgery. However, the relaxation group was a slightly high different of anxiety levels before and after the intervention compared with the distraction group. Relaxation technique might be more adequate for children who faced circumcision because they would be more focused on their bodies even though they see the area of circumcision. Compared with the distraction technique they would easily feel anxious if they see the nurse circumcise. This technique may be associated with some factors as well. There needs more research to explore this field.

LIMITATION

There is no limitation.

CONCLUSION

There was a significant decrease in the level of anxiety in relaxation and distraction group in patients with circumcision. Non-pharmacology technique is recommended to be delivered to children before performing circumcision. Furthermore, parents' support is needed regarding psychological aspect of their children.

AUTHOR CONTRIBUTION

Agus Sulistyowati: Conceptualization, methodology, writing-review and editing, writing-original draft supervision, visualization, and project administration.

Faida Annisa: Software, validation, formal analysis, investigation, resources, data duration and funding acquisition.

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Agus Sulistyowati : None

Faida Annisa : None

CONFLICT OF INTEREST

There is no conflict of interest this research.

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