

## Original Research Article

# THE INFLUENCE OF RELAXATION TECHNIQUE ON THE LEVEL OF ANXIETY IN PRE-CIRCUMCISION SURGERY

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### Abstract

**Background:** Anxiety in children who will undergo circumcision is recognized as part of the trauma experienced by children due to actions that are considered dangerous for themselves. Excessive anxiety in pre circumcision can be prevented through one of the techniques of deep breathing relaxation.

**Objectives:** The purpose of this study was to determine the effect of relaxation techniques on anxiety in patients with pre-circumcision surgery at the Circumcised House Sarirogo, Sidoarjo.

**Design:** The population target was all of the patient for the circumcision in the Circumcised House of Sarirogo, Sidoarjo as many as 28 respondents. The technique sampling in this study used Consecutive Sampling technique. The sample size obtained 22 respondents. The independent variable in this study is relaxation techniques and the dependent variable is the anxiety of pre-circumcision patients. Data were taken using a questionnaire about anxiety given to respondents before and after relaxation techniques were carried out on 1–15 September 2020. This study used Wilcoxon Statistic Test and this research design used a pre-experimental one group pretest-posttest design.

**Results:** The results showed as many as 7 respondents (31.8%) experienced severe anxiety levels before the relaxation technique was applied, while after being given relaxation techniques, the respondent's anxiety level decreased to 3 respondents (13.6%). Based on statistical analysis result, it found that relaxation technique affects to the level of anxiety positively ( $p$ -value = .000).

**Conclusion:** Relaxation techniques in nursing interventions are to divert or distance the client's attention to something that is being faced. While the benefits of this technique, that is, so that someone who receives this technique feels more comfortable, relaxed, and feels in a pleasant position.

**Keywords:** Relaxation technique, anxiety level, circumcision surgery.

## INTRODUCTION

Circumcision is included in the category of minor surgery. Although circumcision is said to be a minor surgery, it should not be considered minor by the patient because it can cause fear and anxiety due to various imaginary sensations that arise before the circumcision operation (Prasetyono, 2009). According to Daradjat (in Affandi, 2008) the anxiety that appears in the primary caregiver is the result of seeing and knowing the danger that threatens him, where this anxiety is closer to fear because the source is clear. Some people generally consider circumcision to be an ordinary act without paying attention to the psychological aspects of the child. If this is not handled immediately, the circumcision process will not work cooperatively so that the child will cry, rebel and refuse to perform circumcision (Prasetyono, 2009). According to the Information Data Center, the Indonesian Ministry of Health (2015) the number of male children aged 10-14 years in Indonesia is 11.5 people. In East Java in 2015 the number of boys aged less than 15 years was 4.6 million. Circumcision acts in Indonesia reach 10.2 million people per year (Budi Sorono, 2016).

There are several ways that 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 feelings of anxiety. While the benefits of this technique, namely that someone who receives this technique feels more comfortable, relaxed, and feels in a pleasant position (Widyastuti, 2010). One of the relaxation techniques that are most often used in every anxious state is the deep breathing relaxation technique. The deep breathing relaxation technique is used to teach and encourage the client to take a good breath, take a deep breath and exhale while releasing the feeling of anxiety that is felt.

## METHODS

### *Study Design*

This study used a pre experimental research design with a one group pre-posttest design approach.

### *Setting*

This research was conducted at the Circumcised House Sarirogo Sidoarjo on September 1-15, 2020.

### *Research Subject*

The population target in this study was all of the patient for the circumcision in the Circumcised House of Sarirogo, Sidoarjo. The technique sampling in this study was non-probability sampling, namely Consecutive Sampling. The sample size in this study was 22 respondents.

### *Instrument*

The *dependent* variable is anxiety in preoperative circumcision patients. anxiety level was measured using the HARS scale (Hamilton Anxiety Rating scale) and the independent variable is relaxation techniques.

### *Intervention*

Giving relaxation in this study by asking the patient who will be doing circumcision to take a breath and communicate about something that pleases the patient. The process of diverting attention to the patient continues until the circumcision is completed.

### *Data Analysis*

The Wilcoxon Signed Rank Test with significant level  $\alpha < 0.05$  was used in this study to determine the influence of relaxation techniques on the level of anxiety in pre circumcision surgery.

### *Ethical Consideration*

The research permit was granted by the Institute for Research and Community Service at the Kerta Cendekia Health Polytechnic, with the number: 032/SPPD/D/II/2021. In addition to obtain permission from the Kerta Cendekia Health Polytechnic Research and Community

Service Center, this research has also received approval

## RESULTS

*Analysis of the Effect of Relaxation Technique on the Level of Anxiety using Wilcoxon Signed Rank Test*

**Table 1.** The Effect of Relaxation Technique on the Level of Anxiety among the Preoperative Circumcision Patients in the Circumcised House Sarirogo Sidoarjo on September 1-15, 2020.

Anxiety Level	Giving Relaxation Technique			
	Before		After	
	f	%	f	%
No Worry	0	0.00	0	0.00
Light	3	13.64	7	31.82
Currently	11	50.00	12	54.54
Heavy	7	31.82	3	13.64
Panic	1	4.54	0	0.00
Total	22	100.00	22	100.00
<i>p</i> -value = .000				

Sources: Primary Data of Questionnaire, 2020.

Based on the results data of this study above (table 1), it found that half or as many as 11 respondents (50%) level of anxiety before giving relaxation techniques at Circumcised House Sarirogo Sidoarjo was moderate anxiety, 7 respondents (31.8%) had severe anxiety and 1 respondent (4.5%) experienced panic. After giving intervention, 3 respondents (13.6%) still experienced severe levels of anxiety after giving relaxation techniques at the Circumcised House Sarirogo Sidoarjo. Based on the result of the statistical analysis using Wilcoxon Signed Rank Test showed that giving the relaxation technique affect to the level of anxiety for the preoperative circumcision patients (*p*-value = .000).

## DISCUSSION

The fear and anxiety of circumcision arise as a result of the process to be undertaken involving pain during anesthesia (Suddarth & Brunner, 2002). Some studies say that there is extreme pain in circumcision (Rahmawati, 2009). Efforts made to treat anxiety include pharmacological management and non-

pharmacological management. Pharmacological management can be in the form of anti-anxiety drugs while non-pharmacology in the form of relaxation techniques, distraction techniques, humor, spiritual therapy and aroma therapy (Isaacs, 2007). Based on the opinion of Steer quoted from (Mander, 2003). Relaxation is a non-pharmacological pain control method frequently used in the UK. Relaxation is a process of resting the body and mind from all physical and psychological burdens, so that the patient becomes calmer. Recovery of postoperative patients takes an average of 75 minutes, so patients will feel severe pain in the first two hours after surgery because the effect of anesthetic drugs has disappeared (Mulyono, 2008). The mechanism that occurs when the patient takes a deep breath, is that it occurs in the skeletal muscles, causing the lungs to enlarge, the oxygen supply to the lungs to expand, the oxygen supply to the lungs to increase, thereby opening the pores of Khon in the Alveoli thereby increasing the concentration of oxygen to be carried to the pain center.

Measurement of anxiety levels before giving relaxation techniques and giving relaxation techniques was done when the respondent came to the Sarirogo Circumcision House to ensure the time schedule and the method of circumcision to be carried out. The second measurement of anxiety level was carried out on the day that had been determined for the circumcision. The range of measurement of the level of anxiety before and after being given relaxation techniques varies in time for each respondent. From the results of the research, respondents with a long-time span of measuring anxiety levels (> 3 days) obtained mild to moderate levels of anxiety, while with a time span of measuring anxiety levels <3 days the average respondent's anxiety level was moderate to severe. Anxiety in children who will undergo circumcision is recognized as part of the trauma experienced by children due to actions that are considered dangerous for themselves. Preventing excessive anxiety in pre-circumcision can be prevented through one of the techniques of deep breathing relaxation in order to be able to cope with the stress that arises so as not to fall into a state of stress or depression. The deep breathing relaxation technique is a form of nursing care, in which the nurse teaches the client how to take deep breaths, slow breaths (hold inspiration maximally) and how to exhale slowly. Besides being able to reduce pain intensity, deep breathing relaxation techniques can also increase lung ventilation and increase blood oxygenation. The purpose of deep breathing relaxation techniques is to increase alveolar ventilation, maintain gas exchange, prevent lung atelectasis, increase cough efficiency, reduce stress both physical and emotional stress, namely reducing pain intensity and reducing anxiety. While the benefits that can be felt by clients after doing deep breathing relaxation techniques are that they can eliminate or reduce anxiety.

## CONCLUSION

Based on the results of research and discussion, it can be concluded that There is an

effect between giving relaxation techniques and the level of anxiety in pre-circumcision patients at preoperative Circumcised House Sarirogo, Sidoarjo Regency.

## SUGGESTION

To minimize anxiety, nursing actions can be carried out both pharmacologically and non-pharmacologically. It is hoped that the deep breathing relaxation technique can be used as an independent nursing action to deal with anxiety in pre-circumcision patients so that it can reduce further complications.

It is expected that children and families who will perform circumcision can increase their knowledge and participate actively in efforts to reduce anxiety with non-pharmacological approaches to increase the comfort of circumcision, so that when children experience excessive anxiety, children and families know how to reduce anxiety.

The author hopes that further researchers will also examine psychological and environmental factors that affect anxiety in children before circumcision and interventions that can reduce anxiety in addition to relaxation techniques.

The results of this study are expected to be useful and make an important contribution to health care institutions, especially nurses' independent practice to improve service quality and provide more optimal nursing actions.

This study is expected to provide basic data that can be used for further research, especially regarding the effect of relaxation techniques on anxiety in pre-circumcision patients.

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## DECLARATION OF CONFLICTING INTEREST

There is no conflict of interest in the writing.

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## AUTHOR CONTRIBUTION

**Agus Wantoro:** Designed the study, collected and analyzed data.

**Agus Sulistyowati:** Supervised the study and compiled the manuscript.

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