

The Effect Of Benson Relaxation Technique on Anxiety Levels in Patients with Supraventricular Tachycardia (SVT) Who Will Undergo Cardiac Ablation

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Submitted : 19th December 2024 ; Accepted : 21th October 2025

Doi: <https://doi.org/10.36858/jkds.v13i2.829>

ABSTRACT

Anxiety is a state of mental state, personality, fear, premonition, feeling hopeless because of an imminent threat. In this study, the act of ablation is an invasive action that makes patients anxious. Benson's relaxation technique is a relaxation technique to lower anxiety levels. This study aims to determine the effect of the Benson relaxation technique on the level of anxiety in supraventricular tachycardia (SVT) patients who will perform ablation procedure at dr. Saiful Anwar Hospital, East Java Province. The research uses a pre-experimental design with a one-group pre-test post-test only design approach. The population was 36 patients and a sample of 30 respondents in total sampling method. This research was conducted in June-August 2024. The instrument uses State Anxiety from STAI (State-Trait Anxiety Inventory). The results of the study showed that the level of anxiety before treatment was severe anxiety (40%), moderate anxiety (40%), and mild anxiety (20%). Meanwhile, after being given treatment, the results were severe anxiety (3.3%), moderate anxiety (46.7%), and mild anxiety (50%). Based on the paired T test, the results showed that the average anxiety score of State before the Benson relaxation technique was 53.70 ± 13.46 and after relaxation was 40.90 ± 8.16 . The results of the paired T test showed a significance value of $0.000 < (=0.05)$, it can be concluded that there is an influence of the difference in the average anxiety score of State before and after the Benson relaxation technique.

Keyword: Anxiety, Benson Relaxation, Cardiac ablation, Supraventricular tachycardia

ABSTRAK

Kecemasan adalah suatu kondisi keadaan mental, kepribadian, ketakutan, firasat, perasaan putus asa karena ancaman yang akan terjadi. Di dalam penelitian ini tindakan ablasi merupakan tindakan yang bersifat invasive yang membuat pasien timbul kecemasan. Teknik relaksasi Benson merupakan teknik relaksasi untuk menurunkan tingkat kecemasan. Penelitian ini bertujuan untuk mengetahui pengaruh teknik relaksasi benson terhadap tingkat kecemasan pada pasien supraventrikular takikardia (SVT) yang akan dilakukan tindakan ablasi Di RSUD dr. Saiful Anwar Provinsi Jawa Timur. Pra-eksperimental design dengan pendekatan one group pre-test post-test only design. Populasi 30 pasien secara total sampling. Penelitian ini dilakukan pada bulan Juni-Agustus 2024. Instrumen menggunakan State Anxiety dari STAI (State-Trait Anxiety Inventory). Hasil Penelitian menunjukkan tingkat kecemasan sebelum dilakukan perlakuan adalah kecemasan berat (40%), kecemasan sedang (40%), kecemasan ringan (20%). Sedangkan setelah diberikan perlakuan didapatkan hasil kecemasan berat (3,3%), kecemasan sedang (46,7%), kecemasan ringan (50%). Berdasarkan uji paired T test, hasil penelitian menunjukkan rata-rata skor kecemasan State sebelum dilakukan teknik relaksasi benson sebesar 53.70 ± 13.46 dan setelah relaksasi menjadi 40.90 ± 8.16 . Hasil paired T test menunjukkan nilai signifikans sebesar $0.000 < (=0.05)$, dapat disimpulkan terdapat pengaruh dari perbedaan rata-rata skor kecemasan State sebelum dan sesudah dilakukan teknik relaksasi benson..

Kata Kunci: Kecemasan, Relaksasi Benson, Ablasi Jantung, Takikardia Supraventrikular

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How to Cite : Satria Nugraha, F. The Effect Of Benson Relaxation Technique on Anxiety Levels in Patients with Supraventricular Tachycardia (SVT) Who Will Undergo Cardiac Ablation . Jurnal Kesehatan Dr. Soebandi, 13(2). <https://doi.org/10.36858/jkds.v13i2.829>

Introduction:

Supraventricular tachycardia (SVT) is a type of heart rhythm disorder, in which the heart beats faster than normal (Yuniadi, 2018). SVT is the most common type of arrhythmia. In America, SVT is relatively common in adults with 89,000 new cases diagnosed each year and as many as 50,000 visits to the emergency department each year. Women have a risk of SVT twice as high as men, and individuals aged > 65 years have a risk of SVT > 5 times more often than young people (Raharjo, 2017).

SVT data in Indonesia is still not separate from arrhythmia data. The incidence of arrhythmia will increase with age. It is estimated that the geriatric population (elderly) will reach 11.39% in Indonesia or 28 million people in Indonesia in 2018 (Health Research and Development Agency, 2020). As age increases, the percentage of arrhythmia cases increases, namely 70% at the age of 65-85 years and 84% over 85 years. At the Integrated Heart and Vascular Service Installation of Dr. Saiful Anwar Hospital, East Java Province, this ablation procedure was started at the Heart and Vascular Service Installation in 2019 with a total of 70 arrhythmia cases and 50 cases that underwent treatment. In 2020, there were 67 cases of arrhythmia ablation and 41 cases that underwent ablation. There are several ways to reduce anxiety levels in patients, namely pharmacological therapy and non-pharmacological therapy. Various non-pharmacological actions include aromatherapy, dhikr relaxation, music relaxation, and others. Non-pharmacological therapy is currently widely researched and applied because it has been proven effective in reducing anxiety levels, one of which is Benson relaxation therapy (Widyastuti, 2015).

Benson relaxation is a type of relaxation technique created by Herbert Benson. Namely a health researcher from Harvard Medical School who studies the effectiveness of prayer and meditation. Certain formulas that are expressed repeatedly by including elements of belief, faith in religion. In addition, belief in God Almighty so that a more comfortable relaxation reaction appears. Not only does it have a healing effect on heart disease, high blood pressure and anxiety,

this relaxation technique also relieves pain (Larasati et al., 2020). Based on the daily report of the Invasive Cathlab Action Room at Dr. Saiful Anwar Hospital, East Java Province in January - December 2023, there were 80 patients who underwent SVT ablation. And based on the results of a preliminary study conducted in February 2024, the results were obtained from 6 patients who would undergo SVT ablation, 4 of these patients admitted to experiencing anxiety due to the actions to be taken, and 2 of these patients expressed anxiety about the results obtained after the ablation was carried out.

Before the patient underwent SVT ablation, the nurses and doctors had provided education about the actions and orientation of the space and tools that would be used for the action so that the patient did not experience anxiety. But in reality, patients still admit to being anxious about the procedure and the results of the SVT ablation that they will undergo, so intervention is needed for the patient's anxiety level. Because this is what will interfere with the ablation process that will be undergone when the patient is too anxious or very anxious, especially during the ablation procedure stage, namely during the local anesthesia puncture stage. So researchers are interested in conducting therapy to reduce patient anxiety before the ablation procedure is performed. This Benson relaxation technique has never been performed at the dr. Saiful Anwar Hospital, East Java Province on patients with a diagnosis of SVT, patients who will undergo SVT ablation experience anxiety. Seeing the phenomena above, researchers are interested in studying "The Effect of Benson Relaxation Techniques on Anxiety Levels in Supraventricular Tachycardia (SVT) Patients Who Will Undergo Ablation at the dr. Saiful Anwar Hospital, East Java Province".

Methods:

The study used a pre-experimental design with a one group pre-test post-test only design approach used to determine the effect of Benson relaxation techniques on anxiety levels in patients with supraventricular tachycardia (SVT) who will undergo ablation at Dr. Saiful Anwar Hospital, East Java Province. Subjects were taken using the

total sampling method, namely patients with SVT who underwent ablation at the Integrated Heart Service Installation of Saiful Anwar Hospital, East Java Province, totaling 30 people. Data collection was carried out using the State Anxiety Inventory questionnaire. Then the patient underwent Benson therapy for 30 minutes before the procedure was performed. The next step in processing quantitative data is cleaning, editing, coding, and entering the data after collection. To examine the distribution of frequencies for each variable, descriptive statistics were used to the data. After the data is obtained, it is statistically tested, namely by analyzing the frequency of anxiety before and after being given Benson therapy using a t dependent test. The results of this analysis are then used to conclude a hypothesis which has been approved by the health research ethics commission of the RSSA with letter number 400/122/K.3/102.7/2024

Results:

Respondent data based on the level of anxiety of Supra Ventricular Tachycardia (SVT) patients.

Table 1. Frequency of Anxiety Levels in SVT Patients Before Being Given the Benson Relaxation Technique

Criteria	State	
	Frequency (n)	Percentage (%)
Mild anxiety (20-39)	6	20
moderate anxiety (40-59)	12	40
Severe anxiety (60-80)	12	40
Total	30	100.00%

The results of the study on the anxiety levels of SVT patients before being given the Benson relaxation technique in the State Anxiety category showed that almost half of the respondents, namely 12 respondents (40.0%) each had moderate and severe anxiety levels.

Table 2. Frequency of Anxiety Levels in SVT Patients after Being Given the Benson Relaxation Technique

Criteria	State	
	Frequencyi (n)	Frequencyi (n)
Mild anxiety (20-39)	15	50.0
moderate anxiety (40-59)	14	46.7
Severe anxiety (60-80)	1	3.3
Total	30	100.00%

The results of the study on the level of anxiety in SVT patients after being given the Benson relaxation technique in the State Anxiety category showed that half of the respondents, namely 15 respondents (50.0%) had moderate anxiety levels and severe anxiety levels. The difference in anxiety between before and after being given the Benson relaxation technique in Supra Ventricular Tachycardia (SVT) patients can be determined using the paired T test. The results of the paired T test are shown in Table 3.

Table 3. Dependent t-Test of Differences in Anxiety Between Before and After Benson Relaxation Techniques Given to Supraventricular Tachycardia (SVT) Patients

Questionnaire	Time	Mean $\pm$ St.Dev	Sig.
State	Pre	53.70 $\pm$ 13.46	0.000
	Post	40.90 $\pm$ 8.16	

The results of the study showed that the average State anxiety score before the Benson relaxation technique was 53.70 $\pm$ 13.46 and there was a decrease after relaxation to 40.90 $\pm$ 8.16. The results of the paired T test showed a significance value of 0.000 , it can be concluded that there is a difference in the average State anxiety score before and after the Benson relaxation technique in Supra Ventricular Tachycardia (SVT) patients at Dr. Saiful Anwar Hospital, East Java Province.

Discussion :

The difference in anxiety levels in patients who will undergo Ablation can be seen from the STAI score before and after the intervention (Pre-Test and Post-Test) based on State Anxiety. The pre-test score for the State

Anxiety category was obtained as many as 6 respondents with mild anxiety, 12 respondents with moderate anxiety, and 12 respondents with moderate anxiety, while for the category. After being given the intervention for the post-test results for the State Anxiety category, there were 15 respondents with mild anxiety, 14 respondents with moderate anxiety, and 1 respondent with severe anxiety.

The results of the study after being given the Benson relaxation technique showed a decrease in anxiety levels, both from the previous severe anxiety level to moderate and the moderate anxiety level to mild. This study also showed cognitive responses in respondents such as worrying about something, feeling disturbed by fear or apprehension of something that happens in the future, believing that something terrible will happen soon, without any clear explanation, fixated on the sensation of need, very alert to the sensation of need, feeling threatened by people or events that normally get little or no attention. There are also physical responses from patients who experience anxiety such as rapid pulse, cold sweat, and pale. This study uses the pair T-test based on Table 5.8, the results of the dependent t-test show a significance value of 0.000, it can be concluded that there is a difference in the average anxiety score in the State Anxiety category before and after the Benson relaxation technique is carried out. And also based on Figure 5.1 there is a significant decrease in moderate and severe anxiety levels. So it can be concluded that the Benson relaxation technique has an effect on reducing anxiety levels based on the STAI score in respondents. This is in line with research conducted by (Susanti, 2021), from the Wilcoxon test, the p-value was obtained smaller than α ($0.000 < 0.050$), which means there is a significant difference in the average between pre and post based on the measured STAI score. It can be concluded that the Benson relaxation technique has an effect on reducing anxiety levels based on the STAI score in respondents, meaning there is a significant effect The Effect of Benson Relaxation Techniques on Anxiety Levels in Pre-Treadmill Test Patients at Dr. Saiful Anwar Hospital, Malang. The level of

anxiety according to (Widyastuti, 2015) in (Susanti et al., 2022) consists of "mild" anxiety, which is related to tension in everyday life, this anxiety causes individuals to be alert and increases their field of perception. This anxiety can motivate learning and produce growth and creativity. "Moderate" anxiety allows individuals to focus on important things and ignore others. This anxiety narrows the individual's field of perception. Thus, individuals experience selective inattention but can focus on more areas if directed to do so. "Severe" anxiety greatly reduces the individual's field of perception. Individuals tend to focus on something detailed and specific and do not think about anything else. All behavior is aimed at reducing tension. The individual needs a lot of direction to focus on other areas.

Anxiety can be reduced with pharmacological and non-pharmacological therapy. Pharmacological therapy using sedatives or antidepressants can also affect a person's anxiety. The chemical system and GABA receptors in antidepressants produce inhibition or a calming effect on the central nervous system. causing significant suppression of the hypothalamic-pituitary-adrenal axis so that patients experience decreased anxiety (Larasati et al., 2020). However, in this study, no respondents consumed sedative or antidepressant drugs because this study focused on non-pharmacological therapy. One of the non-pharmacological therapies to reduce anxiety is the Benson relaxation technique, which is a relaxation that combines relaxation response techniques and individual belief systems/faith factors. Namely, relaxation that is focused on certain expressions in the form of the names of God, or words that have a calming meaning for the patient himself which are repeated with a regular rhythm accompanied by an attitude of resignation (Solehati, 2020). Long breathing can provide enough energy, because when exhaling, carbon dioxide (CO_2) is released and when inhaling deeply, the body gets the oxygen it needs to cleanse the blood and prevent brain tissue damage due to lack of oxygen (hypoxia). When taking a deep breath, the abdominal wall muscles (rectus abdominalis, transverse

abdominalis, internal and external oblique) press the lower ribs backwards and push the diaphragm upwards, which can increase intra-abdominal pressure, which can stimulate blood flow to both the inferior vena cava and the abdominal aorta, resulting in increased blood flow (vascularization) throughout the body, especially vital organs such as the brain, so that O₂ is sufficient in the brain and the body becomes relaxed (Anisah & Maliya, 2021). Researchers argue that a person experiences anxiety due to the individual's psychological reaction in facing a problem. In this study, respondents who will undergo ablation will show a passive, anxious, worried, tense response, and so on. And there are some respondents who feel a little anxious but surrender and accept the conditions and results of the ablation they will undergo. During the retrieval process, the thing they are most worried about is bad events during the procedure or the results of the procedure to be performed. They are worried that these things will affect their daily lives.

Conclusions:

One of the non-pharmacological therapies to reduce anxiety is the Benson relaxation technique, which is a relaxation that combines relaxation response techniques and individual belief systems/faith factors. When patients are anxious and tense, it will increase their pulse and blood pressure which will complicate the next ablation procedure. So it is important to provide relaxation therapy to reduce anxiety before undergoing ablation.

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