



## The Effect of Autogenic Relaxation and Positive Affirmations on Anxiety Levels and Vital Signs of Patients

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### ABSTRACT

**Introduction:** Anxiety is a word used to describe feelings of uneasiness, worry, and at the same time fear so that anxiety can affect the TTV of someone who does the examination. this study aims to determine the description of anxiety levels and TTV in patients. This anxiety needs attention and nursing intervention because the patient's emotional state will affect body function, especially in changes in Vital Sign, which can affect the results of Medical Check Up (MCU) which is less accurate and does not match the actual condition experienced by the patient.

**Methods:** This research design is descriptive research. Has a single variable, namely anxiety level and TTV. The population of this study was 100 with purposive sampling technique that met the inclusion criteria so that it became 80 respondents. Carried out on November 1 to November 23, 2024. Data were collected using anxiety levels and vital signs using a questionnaire instrument. Data analysis using the Wilcoxon statistical test to determine the level of significance  $\alpha < 0.05$ , if  $p < 0.05$  then there is an effect of Autogenic Relaxation and Positive Affirmation on the level of anxiety and vital signs of patients.

**Results:** Most respondents had mild anxiety 54 patients (67.5%) after the intervention and almost all respondents had abnormal TTV 63 patients (78.8%) after the intervention. In this study with the willcoxon test, there is an effect of the combination of autogenic relaxation (p-value = 0.000), and positive affirmations (p-value = 0.000) on anxiety levels.

**Conclusion:** The MCU clinic provides audio about providing autogenic relaxation and positive affirmations in the waiting room to reduce patient anxiety so that patients have accurate medical examination results.

**Keywords:** Anxiety; Blood Pressure; Patients

## INTRODUCTION

Anxiety is a word used to describe feelings of uneasiness, worry, and fear. The condition involves both emotions and physical sensations that may be experienced when worried or nervous about something (Pamungkas, 2018). Some health services, including Medical Check Up (MCU) services to patients, can generally provide different experiences for patients so that they can have an impact on the patient's emotional condition during the examination (Sembiring et al., 2021). In the MCU examination, patients are often found with blood pressure that rises from normal even though the patient does not have a specific disease disorder such as hypertension (Debora et al., 2025). This condition arises because the patient experiences anxiety during the examination, the patient's anxiety can also affect the TTV when the patient is examined because they are afraid of the examination process being carried out (Atmojo, 2023). Patient services at the Medical Check Up (MCU) currently only focus on the examination process, so that the emotional condition of the patient is rarely considered by the medical staff who carry out the examination. If this is not considered, the results obtained by the patient are Medical Check Up (MCU) results that are less accurate and do not match the actual condition experienced by the patient.

According to data obtained by WHO, the incidence of anxiety worldwide in 2017 reached more than 200 million people with a ratio between the population and anxiety of 3.6% (Himpsa, 2020). In 2015, anxiety data in Southeast Asia reached more than 60 million people or

around 23% of the population (Supardi et al., 2020). In Indonesia, the prevalence of anxiety is estimated at 9%-12% of the general population, while the population rate of preoperative patients who experience anxiety is 80%, where of the entire population who experience anxiety 65% experience severe anxiety, 35% experience moderate anxiety (Rihiantoro et al., 2019). Based on data from Riskesdas in 2018, it is known that the prevalence of anxiety in Indonesia for ages 15 years and over reached 9.8%, which has increased compared to 2016 which amounted to 6%. While in East Java the incidence of anxiety was recorded at 7.5%. Based on preliminary studies conducted by researchers since working in the Medical Check Up room at RSUD IBNU SINA Gresik Regency in 2022, it was found that the number of patient visits in the MCU at RSUD Ibnu Sina Gresik Regency in 2022 was 4231 patients, in 2023 it was 3981 patients, in 2024 in the last 6 months there were 2097 patients. And it was found that out of 2097 patients who suffered from anxiety as many as 151 patients and as many as 50 patients who were followed by changes in blood pressure that rose. This condition arises because the patient experiences anxiety during the examination, the patient's anxiety can also affect the TTV at the time of the patient's examination because they are afraid of the examination process being carried out.

To reduce anxiety levels in patients undergoing medical examinations, relaxation techniques such as autogenic relaxation and positive affirmations are essential. Relaxation is effective in lowering heart rate and blood pressure, reducing muscle tension, improving well-being and reducing stress symptoms in

individuals experiencing various situations (for example, complications from medical treatment or grief due to the loss of a loved one. With this, severe anxiety can become mild anxiety or patients no longer feel anxious in undergoing examinations. This is in line with Hamdani's research (2022) which states that self-affirmation relaxation techniques can reduce student learning stress in various situations. And in line with Yefrina' research (2024) which states that relaxation and self-affirmation carried out will be able to reduce tension, anxiety, and stress. Someone who does affirmation relaxation techniques can feel calm, comfort and peace. Anxiety that can cause changes in vital signs can be handled with several actions. According to Indra Frana Jaya's research (2023) in this study concluded that the level of anxiety of chronic kidney failure patients undergoing hemodialysis before being given the most dominant affirmation relaxation intervention was in the moderate anxiety prone group with a total of 19 patients, while the level of anxiety of chronic kidney failure patients undergoing hemodialysis after being given the most dominant intervention There is a decrease in the number of patients experiencing mild anxiety with a total of 21 patients, there was a decrease in the number of patients experiencing anxiety, especially a significant decrease in patients with very severe anxiety levels and no anxiety after the intervention with the Affirmation technique. This, if allowed to drag on, will have a bad impact on patients and hospitals, which if there is a delay, will increase costs and time wasted for patients and hospitals. The purpose of this study was to determine the effect of the combination of autogenic relaxation and

positive affirmations on the level of anxiety and vital signs of patients.

## **METHOD**

The design used in this study is descriptive, which is a research method carried out with the main objective of an objective picture or description of a situation. In this study, researchers wanted to identify the description of anxiety levels and TTV in patients. The population of this study was 100 with purposive sampling technique that met the inclusion criteria of patients willing to become respondents, check in the MCU, have never checked in the MCU, and do not have hypertension comorbidities. For the exclusion criteria respondents who withdrew self and patients have hypertension. so that it becomes 80 respondents. It was held on November 1 to November 23, 2024. This research instrument uses the HARS questionnaire sheet where the HARS Scale (Hamilton Anxiety Rating Scale) is a measuring tool used to assess the level of anxiety in individuals. This scale was developed by Max Hamilton in 1956 and consists of 14 question items that measure signs of anxiety, both psychological and somatic. Each item is scored from 0 (none) to 4 (very severe) for the level of anxiety and an observation sheet for TTV. The HARS scale questionnaire has been validated and has reliability so that it is accurate in assessing patient anxiety. TTV was normal when blood pressure (Systole <130 mmhg, Diastole <85 mmhg), pulse (60-100x/min), temperature (36-37C), and respiration (12-20 x/min). Analyzing data with the Wilcoxon statistical test to determine the level of significance  $\alpha < 0.05$ , if  $p < 0.05$ .

## RESULTS

In this data, the characteristics of respondents based on gender and age will be displayed.

Table 1 shows that the majority of respondents were female, 43 patients (46.3%) and the majority of respondents were aged 31-40 years, 55 patients (68.8%) and a small proportion of respondents were aged 41-50 years, 3 patients (3.8%).

Table 2 shows that respondents based on the level of patient anxiety, most respondents had mild anxiety, 54 patients (67.5%) and almost all

Table 1. Respondent characteristics

| Respondent Characteristics | N  | %     |
|----------------------------|----|-------|
| Gender                     |    |       |
| Man                        | 37 | 46.3  |
| Women                      | 43 | 53.8  |
| Total                      | 80 | 100.0 |
| Age                        |    |       |
| 25-30                      | 22 | 27.5  |
| 31-40                      | 55 | 68.8  |
| 41-50                      | 3  | 3.8   |
| Total                      | 80 | 100.0 |

Table 2. Anxiety level and vital signs

| Variables           | N  | %    |
|---------------------|----|------|
| Anxiety level       |    |      |
| Don't worry         | 0  | 0    |
| Mild anxiety        | 54 | 67.5 |
| Moderate anxiety    | 26 | 32.5 |
| Very anxious        | 0  | 0    |
| Total               | 80 | 100  |
| Vital signs         |    |      |
| Normal vital sign   | 17 | 21.3 |
| Abnormal vital sign | 63 | 78.8 |
| Total               | 80 | 100  |

respondents had abnormal vital signs, 63 patients (78.8%).

The results of data processing using Willcoxon obtained a p-value <0.05, so it can be concluded that there is an effect of the combination of autogenic relaxation and positive affirmations on the level of anxiety and vital signs.

## DISCUSSION

This study found that patients' anxiety levels before being given the intervention. With a combination of autogenic relaxation intervention and positive affirmations, most respondents experienced mild anxiety and almost half of respondents experienced moderate anxiety. This anxiety requires attention and nursing intervention because the patient's emotional state will affect body function before surgery (Hernandez et al., 2021). The effects of high anxiety can affect the body's physiological functions, characterized by increased blood pressure, increased pulse rate, increased respiratory rate, diaphoresis, trembling, fear, nausea or vomiting, restlessness, dizziness, and sensations of heat and cold (Atmojo, 2023). This anxiety requires attention and nursing intervention because the patient's emotional state will affect body function before surgery. The effects of high anxiety can affect the body's physiological functions, characterized by increased blood pressure, increased pulse rate, increased respiratory rate, diaphoresis, trembling, fear, nausea or vomiting, restlessness, dizziness, and sensations of heat and cold (Atmojo, 2023).

Table 3. Distribution of Respondents Based on the Effect of the Combination of Autogenic Relaxation and Positive Affirmations on the Level of Anxiety and Vital Signs of Patients

| Variables                   | Pre Test |      | Post Test |      | Wilcoxon <i>sign rank test</i> |
|-----------------------------|----------|------|-----------|------|--------------------------------|
|                             | N        | %    | N         | %    |                                |
| Anxiety Level               |          |      |           |      | p value = 0.000                |
| Don't worry                 | 0        | 0    | 61        | 76.3 |                                |
| Mild anxiety                | 54       | 67.5 | 19        | 23.8 |                                |
| Moderate anxiety            | 26       | 32.5 | 0         | 0    |                                |
| Very anxious                | 0        | 0    | 0         | 0    |                                |
| Don't worry                 | 0        | 0    | 0         | 0    |                                |
| Total                       | 80       | 100  | 80        | 100  |                                |
| Vital Signs                 |          |      |           |      | p value = 0.000                |
| <i>Normal vital signs</i>   | 17       | 21.3 | 66        | 82.5 |                                |
| <i>Abnormal vital signs</i> | 63       | 78.8 | 14        | 17.5 |                                |
| Total                       | 80       | 100  | 80        | 100  |                                |

Someone about to undergo a medical check-up or examination of themselves, of course, someone will experience anxiety because they will feel worried about what will happen to them. The individual's way of viewing the situation is to believe that there are terrible possibilities lurking, which creates excessive doubt, worry, and fear when they occur. They also perceive themselves as incompetent, thus lacking self-confidence and perceiving the situation as a threat that is difficult and impossible to overcome. Anxiety is an emotional turmoil that occurs within a person, related to something external and the mechanisms used to cope with the problem (Vintila et al., 2023). Manifestations of anxiety include physiological changes such as sweating, trembling, abdominal pain, increased heart rate, shortness of breath, and behavioral changes such as rapid speech, restlessness, and startle reactions (Naveen et al., 2024).

One relaxation technique that can be used is autogenic relaxation. Autogenic

relaxation is a relaxation that puts oneself in a mild hypnotic state (Sutrisno et al., 2024). You command your legs and arms to feel heavy and warm, your heart rate and breathing rate to stabilize, your stomach to relax, and your forehead to feel clear and cool. Then, you repeat the easiest and most relevant command to address stress symptoms, such as commanding your forehead to feel cool and to relieve a headache, while repeating this command while clasping your fingers together. Autogenic relaxation and positive affirmations can increase positive self-beliefs, enhance self-integrity, foster positive coping and emotional responses, enhance self-defense, and promote feelings of calm (Raka, 2023). Furthermore, autogenic relaxation and positive affirmations can decrease sympathetic nervous system activity and increase parasympathetic nervous system activity, thereby decreasing epinephrine-norepinephrine-catecholamines secretion, increasing blood vessel vasodilation, and

increasing vascularization, ultimately reducing anxiety in patients visiting the emergency department (MC) (Imamah, 2020). The results are less than desired, and patients can lose their jobs. This condition makes patients anxious. This is in line with Indra Frana Jaya's opinion in 2023, which stated that individuals' perspectives on a situation assume that there are negative possibilities lurking, thus giving rise to excessive doubt, worry, and fear if these occur. They also perceive themselves as incapable, resulting in a lack of confidence and perceive the situation as a difficult and difficult threat to overcome.

## CONCLUSION

Based on the results of the study, discussion and research objectives, it can be concluded that anxiety and vital signs have most respondents have mild anxiety and most vital signs is not normal. This is inseparable from health workers to do so that during the examination the patient has a sense of calm and is not afraid so that a method or action is needed to combine autogenic relaxation and positive affirmation before the examination is carried out so that unwanted things can be avoided such as patients experiencing anxiety and abnormal vital signs which can cause delays in the examination.

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