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Anxiety Score in Anxiety Patients Using Slow Deep Breathing Relaxation Therapy

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Abstract

Anxiety problems experienced can be caused by situations or conditions that a person will face that are considered threatening and endangering themselves so that pharmacological treatment is needed, namely in the form of antianxiety and non-pharmacological. Nonpharmacological therapy in generalist nurses that can be given to anxiety patients includes slow deep breathing. The purpose of this study was to determine the effect of slow deep breathing relaxation therapy on anxiety scores in anxiety patients in the Limboto Health Center working area. The research method used pre-experimental with one group pre-post test design. The study population was patients with anxiety who were in the Limboto Puskesmas working area. The sample in this study was the total population of 15 people. Based on the results showed that the average score of symptoms before slow deep breathing relaxation was 25.73 with a standard deviation of 1.668 and the average score after slow deep breathing relaxation was 15.33 with a standard deviation of 3.222, and the p-value obtained was 0.001 (<α 0.05), meaning that there was an effect of slow deep breathing relaxation therapy on anxiety scores in anxiety patients in the Limboto Puskesmas Working Area.

Introduction

Anxiety is a blurred and unpleasant emotional condition accompanied by the characteristics of fear of something, feeling trembling, pressing and uncomfortable. Anxiety is often accompanied by physical symptoms such as headaches, fast heartbeat, chest tightness, stomach ache, restlessness and inability to sit still. However, the symptoms of anxiety that appear can vary from person to person and are basically experienced by anyone (Sugiarti, 2023).

Data from the World Health Organization (WHO) shows that anxiety is the most common mental health problem experienced by 301 million people in the world and only 1 in 4 people or 27.6% with anxiety problems receive treatment to reduce this problem (WHO, 2023).

In Indonesia, based on data from the Association of Indonesian Psychiatric Medicine Specialists (PDSKJI) which conducted examinations on 14,988 people from 2020-2022, the results showed an increase in psychological problems every year, namely for anxiety problems in 2020 the prevalence was 68.8%, in 2021 it was 76.1% and in 2022 it will be 75.8% (Al Wafa et al., 2024; Wijaya et al., 2023; Novita et al., 2023).

According to data from the Gorontalo Provincial Health Service in 2023, it was found that the prevalence of anxiety problems in Gorontalo Province was 190 people with the highest being Pohuwato Regency, namely 60 people, Gorontalo Regency with 54 people, Boalemo Regency with 40 people, Bone Bolango Regency with 18 people, Gorontalo City as many as 14 people and North Gorontalo Regency as many as 4 people.

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Anxiety problems experienced can be caused by situations or conditions that a person will face which are considered threatening and dangerous to themselves, so pharmacological treatment is needed, namely in the form of anti-anxiety and non-pharmacological. Non-pharmacological therapy is believed to have lower side effects, is safer and can be used for a longer period of time, when compared with anti-anxiety drugs (Wang et al., 2022; Septadina et al., 2021). Generalist non-pharmacological therapies that can be given to anxiety patients include slow deep breathing , progressive muscle relaxation, distraction, five finger hypnosis and spiritual therapy. One therapy that can be carried out is slow deep breathing exercises which are useful for reducing patient anxiety, which is a deep, slow and relaxed breathing technique carried out by the patient in a conscious condition, thus providing a relaxing effect (Gholamrezaei et al., 2021; Supatmi et al., 2024; Joseph et al., 2022).

Slow deep breathing can reduce patient anxiety, which has been proven in several previous studies, including research by Amanullah et al (2023) showing that the average anxiety score before slow deep breathing was 39.24 and after being given slow deep breathing for 7 days the average anxiety score after experiencing a decrease to 36.00 so slow deep breathing is effective in reducing anxiety (Petker et al., 2021; Yao et al., 2023; Akram et al., 2019). Other research by Tamrin & Syamsir (2023) and Velazquez Osorio (2022) shows the influence of slow deep breathing on anxiety, where the average anxiety score before slow deep breathing is 22.90 and after slow deep breathing the average score decreases to 8.23.

A preliminary study conducted by researchers on January 17 2024 found that the number of anxiety patients in the Limboto Community Health Center working area was 45 people. The results of initial observations using HARS on 5 patients showed that 5 patients showed symptoms in the form of fear of their own thoughts, irritability, tension, unable to rest soundly, trembling, restless, afraid of strangers, afraid of large animals, stiff and restless. , and there appears to be increased muscle tone or tension. Researchers also conducted interviews with the person in charge of mental health at the Limboto Community Health Center that the therapy given to anxiety patients was in the form of anti-anxiety drugs and education to families regarding recommendations to help patients take anti-anxiety drugs regularly according to the recommended prescription. Non-pharmacological therapy, namely slow deep breathing, has never been given to anxiety patients to treat anxiety problems experienced by each patient (Hertati, 2024; Dobie & Dobie, 2019; Gabriely et al., 2020).

Based on the background above, the author is interested in writing a scientific paper with the title " The Effect of Slow Deep Breathing Relaxation Therapy on Anxiety Scores in Anxiety Patients in the Limboto Health Center Working Area". Research purposes This For know influence therapy relaxation slow deep breathing towards score anxiety in patients anxiety in the work area Health Center Limboto.

Methods

The type of research used was pre-experimental with one group pre-post test design . In this study, researchers measured anxiety scores before being given slow deep breathing relaxation therapy and after being given slow deep breathing relaxation therapy, anxiety scores were measured to determine the influence of the independent variable, namely slow deep breathing relaxation therapy and the dependent variable, namely anxiety score. This research is located in the working area of the Limboto Community Health Center. Research was carried out on March 18-31 2024 . The type of instrument used in this research is the HARS anxiety score questionnaire sheet consisting of signs and symptoms of anxiety, namely feelings of anxiety, tension, fear, intelligence disorders, somatic symptoms, cardiovascular symptoms, respiratory symptoms, gastrointestinal symptoms and autonomic symptoms.

Then, the level of anxiety experienced by the patient is categorized as not anxious or normal with a score of <6, mild anxiety with a score of 6-14, moderate anxiety with a score of 15-27

and severe anxiety with a score of >27 and standard operating procedures (SOP) for slow relaxation therapy. deep breathing. Data collection was carried out using primary data obtained by the researcher directly from the before and after anxiety level observation sheet which was filled in by the researcher himself based on the results of HARS examinations on patients, while secondary data was data on anxiety patients in the Limboto Community Health Center working area. In the researcher's research there are research ethics starting from asking for the respondent's consent, when filling out the questionnaire the respondent is asked to only write initials without a name, after the respondent has finished answering the questionnaire the researcher stores the data in a safe place to maintain the confidentiality of the respondent's data. Data Analysis using analysis univariate that is For describe or describe each research variable using the average, standard deviation, minimum score and maximum score before and after slow deep breathing relaxation therapy whereas analysis bivariate using the non- parametric Wilcoxon statistical test with with level meaning p.value < 0.05 (5%).

Results and Discussion

Based on the table , it shows that the average patient anxiety score before slow deep breathing relaxation was 25.73 with a standard deviation of 1.668, the minimum anxiety score before was 22 and the maximum anxiety score before was 28.

Table 1. Anxiety Score Before Slow Deep Breathing Relaxation Therapy in Anxiety Patients in the Limboto Community Health Center Work Area , n=15 respondents

Anxiety Score	N	Mean	Standard Deviation	Minimum Score	Maximum Score
Before relaxation *slow deep breathing*	15	25.73	1,668	22	28

Source: Primary Data 2024

Based on the table , it shows that the average patient anxiety score after slow deep breathing relaxation is 15.33 with a standard deviation of 3.222, the minimum anxiety score after is 11 and the maximum anxiety score after is 21.

Table 2. Anxiety Score After Slow Deep Breathing Relaxation Therapy in Anxiety Patients in the Limboto Community Health Center Work Area , n=15 respondents

Anxiety Score	N	Mean	Standard Deviation	Minimum Score	Maximum Score
After relaxation *slow deep breathing*	15	15.33	3,222	11	21

Source: Primary Data 2024

Based on table shows that the average symptom score before slow deep breathing relaxation is 25.73 with a standard deviation of 1.668 and the average score after slow deep breathing relaxation is 15.33 with a standard deviation of 3.222, and the p-value is 0.001 (<α 0 .05) means that there is an effect of slow deep breathing relaxation therapy on anxiety scores in anxiety patients in the Limboto Health Center Working Area.

Table 3. The Effect of Slow Deep Breathing Relaxation Therapy on Anxiety Scores in Anxiety Patients in the Limboto Community Health Center Working Area

Relaxation *Slow Deep Breathing*	N	Mean	Elementary School	P-value
Pre-test	15	25.73	1,668	0.00
Post-test	15	15.33	3,222	

Anxiety Score Before Slow Deep Breathing Relaxation Therapy in Anxiety Patients in the Limboto Community Health Center Working Area

The research results showed that anxiety patients in the Limboto Community Health Center working area before being given slow deep breathing relaxation therapy obtained an average score of 25.73, this score was included in moderate anxiety because moderate anxiety was in the score range of 15-26. This is because based on the results of the HARS scale measurements, it is indicated by the presence of symptoms including the patient experiencing feelings of anxiety (having a bad feeling, being afraid of one's own thoughts and being irritable), tension, fear, the emergence of somatic symptoms, the emergence of cardiovascular symptoms such as a fast pulse, autonomic symptoms. such as dry mouth, easy sweating and a feeling of irritability, and restlessness.

This is supported by the theory according to Sitohang (2022) and Bater & Jordan (2020) which states that moderate anxiety can cause a person to focus on important things and put aside others so that a person experiences selective attention, but can still do something more focused. Another theory by Zaini (2019) and Endri & Hansari (2022) is that a moderate level of anxiety experienced by the patient can cause symptoms, namely decreased concentration and attention, increased blood pressure, rapid pulse, rapid breathing frequency, sweating and restlessness.

Supported by research by Tamrin & Syamsir (2023) and Indarwati et al. (2022) which shows that the results of measurements of patients who experienced anxiety at Sleman Hospital, Yogyakarta before slow deep breathing relaxation were carried out, the average pre-anxiety score was 22.90, where pre-intervention anxiety was between 15-27 which classified as moderate anxiety.

The researcher's assumption is that anxiety patients who experience moderate anxiety show symptoms of patients experiencing feelings of anxiety due to bad feelings, fear of their own thoughts or due to irritability. Apart from that, patients also show tension, fear, the emergence of somatic symptoms, cardiovascular symptoms such as a fast pulse, autonomic symptoms such as dry mouth, easy sweating and a feeling of irritability, and restlessness. However, patients who experience moderate anxiety can still do things that are more focused.

Anxiety Score After Slow Deep Breathing Relaxation Therapy in Anxiety Patients in the Limboto Community Health Center Working Area

The results of the study showed that after being given slow deep breathing relaxation therapy to anxiety patients in the Limboto Health Center working area, there was a decrease in the average score, namely 15.33 from the previous average score of 25.73, so it can be seen that there is a significant difference between the anxiety scores before and after relaxation slow deep breathing. The average anxiety score after 15.33 is still included in moderate anxiety, but the score has decreased. This is because after being given slow deep breathing relaxation, the patient's feelings of anxiety are reduced, tension is reduced, fear is reduced, somatic symptoms are reduced, cardiovascular symptoms such as pulse, blood pressure increases to decrease, respiratory symptoms such as shortness of breath decrease and the feelings felt by the patient, respondents can divert the pain they are currently experiencing and motivate patients to recover, and not worry.

Slow deep breathing is breathing with a slow, slow, rhythmic and comfortable frequency by closing your eyes when inhaling (Levin & Swoap, 2019; Hendriani, 2022; Brems, 2024) . Slow deep breathing focuses on breathing which has the effect of reducing anxiety conditions, this is because during the breathing process you relax, free yourself from disturbing thoughts and sensations by supplying oxygen, then as if sending a message to the brain to remain calm, which then sends a message throughout the brain. body to relax, reduce tension and eliminate anxiety (Saleh, 2023). The benefits of slow deep breathing relaxation include that emotionally

it can help achieve mental calm, directing thoughts and feelings to be calmer, not thinking about uncertain things so that brain performance can be reduced (Mardliyana & Puspita, 2023).

In line with research by Putri & Nurhidayati (2022), after being given slow deep breathing, the respondents' anxiety scores decreased before the intervention, namely 40-43 and after slow deep breathing, the anxiety scores decreased to 33-37. Supported by research by Tamrin & Syamsir (2023), namely post slow deep breathing the average anxiety value was 8.23 from the previous 22.90.

The research assumption is that slow deep breathing can reduce anxiety because the process involves breathing for a slow, slow, rhythmic and comfortable duration so that this can stimulate the patient to escape from disturbing thoughts which causes the stimulus to send a message to the brain to remain calm and reduce anxiety. so that after being given slow deep breathing, the patient's feelings of anxiety are reduced, tension is reduced, fear is reduced, somatic symptoms are reduced, cardiovascular symptoms such as the pulse rate, blood pressure increases to decrease, respiratory symptoms such as shortness of breath decrease and the feelings.

Bivariate Analysis

The results of the study showed that slow deep breathing relaxation therapy had an effect on the anxiety scores of anxiety patients in the Limboto Community Health Center working area, this was because the average anxiety score of patients before being given therapy was 25.73. After measuring anxiety, the researchers carried out slow deep breathing relaxation therapy for 4 consecutive days on each respondent which was carried out by encouraging the patient to take slow, steady and steady breaths, create a stable or normal breathing rhythm, place their hands on their upper chest, right under the collar and breathe for 15 seconds, the patient is advised to exhale while allowing the body to become relaxed and comfortable, move the hands down and place them between the ribs and breathe for 15 seconds, exhale slowly while allowing the body to become relaxed and comfortable, hands still between the ribs and breathe again into the lower ribs where feel the hand is located in that area and breathe into the middle ribs and breathe into the upper chest and hold. Continue with breathing for 15 seconds and imagine the block as it fills the lungs completely from the bottom up, start with a slow, slow, soft and steady inhale, the patient is encouraged to maintain a steady breathing rhythm with a good rhythm and finally place the hands on upper chest area just below the collar and breathe for 15 seconds. Therefore, the series of therapy given for 4 days for each patient showed that there was a decrease in the average anxiety score from 25.73 to 15.33 with a difference of 10.4 so it can be seen that there was a significant decrease in all respondents between the average scores. -average anxiety before and after so that slow deep breathing relaxation therapy has an effect on the anxiety scores of anxiety patients.

Slow deep breathing is a form of nursing care in which the nurse teaches the client how to take deep breaths, slow breaths (holding inspiration to the maximum) and how to exhale slowly. This technique can increase lung ventilation and increase blood oxygenation (Wisnasari et al., 2021) . Slow deep breathing is an effort to carry out maximum inspiration and expiration so as to slowly stimulate the lung's stretch receptors, stimulate the parasympathetic nerves and inhibit the sympathetic nerves (Mardliyana & Puspita, 2023) . Slow deep breathing relaxation diverts attention from anxiety and activates natural endorphin hormones, as well as improving the body's chemical system thereby lowering blood pressure and slowing breathing, heart rate, pulse and brain wave activity. A deeper or slower breathing rate is very good for creating calm and emotional control (Migliaccio, 2024; Syamsuriyati, 2022). Apart from that, it significantly reduces cortisol and ACTH levels which increase when anxiety occurs and increases the release of endorphins which can cause relaxation or decrease tension in the reflective nerves and cause a calm mood which has an impact on the looseness of the arteries, increased blood levels in the

skin and a decrease in heart rate frequency resulting in a decrease in anxiety (Septadina et al., 2021).

Supported by the results of research by Nusantoro & Listyaningsih (2018) which shows that there is an influence of slow deep breathing on anxiety levels because it can reduce physiology. This is strengthened by the research findings of Tamrin & Syamsir (2023) and Deng et al. (2023), namely that there is an influence of slow deep breathing on anxiety levels because there is a decrease in anxiety from the average score before 22.90 to 8.23.

The researcher's assumption is that slow deep breathing relaxation therapy, which begins with slow, soft and steady inhalations, each movement is carried out for 15 seconds and is carried out for 4 consecutive days, can reduce anxiety because it can activate endorphins or natural happiness hormones, which are these hormones. can make the patient relax and reduce nervous tension, stimulate the parasympathetic nerves and inhibit the sympathetic nerves which results in relaxation of the blood vessels, decreased heart rate, decreased and stable breathing frequency with a regular rhythm, and the mind becomes relaxed so that it can reduce the anxiety of patients who experience anxiety .

Conclusion

Based on research result shows that the average symptom score before slow deep breathing relaxation is 25.73 with a standard deviation of 1.668 and the average score after slow deep breathing relaxation is 15.33 with a standard deviation of 3.222, and the p-value is 0.001 (<α 0 .05) means that there is an effect of slow deep breathing relaxation therapy on anxiety scores in anxiety patients in the Limboto Health Center Working Area.

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