



**THE EFFECT OF PROGRESSIVE RELAXATION TECHNIQUES ON ANXIETY LEVELS IN SCHIZOPHRENIA PATIENTS**

**Aisyah Nurul Fadhillah, Arif Widodo\***

School of Nursing, Universitas Muhammadiyah Surakarta, Jl. A. Yani, Mendungan, Pabelan, Sukoharjo, Jawa Tengah 57162, Indonesia  
\*arif.widodo@ums.ac.id

**ABSTRACT**

One of the mental disorders that can affect self-perception, emotions, behavior, and social functioning is schizophrenia. Schizophrenia patients may experience anxiety, behavioral disorders, cognitive disorders, speech disorders, and perception disorders. By calming the muscles of the head to the legs, progressive relaxation technique interventions are a nonpharmacological way to reduce anxiety. This study aims to determine the effect of the intervention of progressive relaxation techniques on the anxiety level of schizophrenia patients at RSJD Surakarta. The instrument used in this study was the Zung Self-Rating Anxiety Scale (ZSAS) on 30 respondents of schizophrenia patients who were surveyed and treated at RSJD Surakarta. A purposive sampling technique was used to determine the research objectives. The results showed that there was an effect of progressive relaxation technique intervention on the anxiety level of schizophrenia patients, using the Wilcoxon test with a significance result ( $p$ -value) = 0.001. In conclusion, the administration of progressive relaxation interventions in schizophrenia patients can have an effect in lowering the level of anxiety felt by patients.

Keywords: anxiety; progressive relaxation techniques; schizophrenia

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**INTRODUCTION**

Schizophrenia is a mental illness that manifests in a variety of forms, including emotional tension, disordered thinking and behavior, and other symptoms that make no sense. According to Sutinah and Safitri (2019), schizophrenia patients also suffer from several psychotic diseases, including speech, perception, thinking, and behavior disorders. Although schizophrenia is a clinical disease that can impact behavior, emotions, perceptions, and social functioning, everyone is affected by the disorder differently (Suryanti & Ariani, 2018). Genetics is a higher risk factor as the cause of schizophrenia, and if the father or mother has a history of schizophrenia, the offspring will likely experience the same thing. Then pressure from the environment is also a factor in the occurrence of schizophrenia because emotional stress that is full of conflict can cause a person to be stressed for a long time, and it can cause symptoms of schizophrenia (Aziz et al., 2019). In addition to genetic and environmental factors, narcotics abuse, especially marijuana, and methamphetamine, are also factors causing schizophrenia because it can interfere with cognitive abilities in the brain so that a person cannot think clearly and will behave based on consciousness (Aditya Putra Harwanto et al., 2023).

According to the WHO (World Health Organization), they are reported in 2016 that the global prevalence of schizophrenia increased from 33 per 1,000 people in 2009 to 61 per 1,000 people in 2014. With an incidence rate of 23 per 1,000 population, the Western Pacific region has the highest incidence rate of schizophrenia, while Europe, a developed country, has an incidence of 0.3 per 1,000. West Kalimantan has the lowest incidence rate of schizophrenia at 0.7 cases per 1,000 people. At the same time, many regions in Indonesia, including Aceh and

the Special Region of Yogyakarta, rank highest, with 2.7 cases per 1,000 people (Damanik et al., 2020).

A person experiences anxiety when he feels afraid of something. Although the personality remains intact, the person has no difficulty evaluating reality. Anxiety is a type of illness that affects the emotional world of humans and is determined by emotions of fear or excessive worry about essential and enduring aspects of life. Everyone can experience anxiety, which is a normal emotion that may be able to undergo changes, developments, new experiences, or experiences that they have never experienced before. Anxiety is also a person's reaction to certain situations that can arise and be dangerous. A person's life function can be disrupted and hampered because there are too many things to worry about (Nofrialdi et al., 2018).

Progressive muscle relaxation is an exercise method that involves learning to contract and relax muscle groups systematically, starting from the facial muscles and ending with the leg muscles. This relaxation usually lasts 15 to 30 minutes and can be accompanied by instruction (Kodir Kodir et al., 2020). The response that appears in the administration of progressive relaxation techniques is in the form of lowering blood pressure, reducing tense muscles, pulse, and anxiety, and overcoming stressors (Ambarwati & Supriyanti, 2020). In addition, doing progressive relaxation techniques regularly can reduce sleep disturbances experienced by a person (Sari Kemala et al., 2020). In this technique, it is hoped that each individual can feel the difference when the condition of the muscles in a specific part of the body is tightened with the condition of the muscles when they are relaxed. By knowing the location and condition of the muscles when tense, individuals can feel the loss of tension due to anxiety. Progressive relaxation techniques are non-pharmacological therapies that can not only help a person to reduce anxiety but this relaxation can also be used to reduce dependence on drugs that have adverse side effects and can also support the management of overall psychotic conditions (Kedwan, 2023) Based on the findings of a preliminary study conducted at RSJD Surakarta, 2,602 patients diagnosed with schizophrenia received treatment in the inpatient room during the 2023 period, and 246 patients received treatment between January and March 2024. Given the breadth of the description above, this study aims to find out whether progressive relaxation therapy has an impact on reducing anxiety levels in schizophrenia patients at RSJD Surakarta.

## **METHOD**

The design of this quantitative experimental research is one group pre-post test. The level of anxiety is the dependent variable in this research, while the progressive relaxation technique is the independent variable. The sample was 30 schizophrenia patients who took part in research conducted during August 2024 at RSJD Surakarta. Purposive sampling was used to select respondents. The Zung Self-Rating Anxiety Scale (ZSAS) questionnaire, consisting of 20 questions with validity test results of 0.662 and reliability test results of 0.828, was given to patients to measure the respondents anxiety levels before receiving a gradual relaxation intervention for approximately 20 minutes. The Wilcoxon test was used because the data in this study were generally not normally distributed according to the Shapiro-Wilk test. Dr. Moewardi Hospital from the Health Research Ethics Commission (KEPK) has granted this research ethics permit with number 2.015/VIII/HREC/2024.

**RESULT**

Table 1.  
Respondent Characteristics (n=30)

Variable	f	%
Gender		
Female	30	100
Age		
<16 year	1	3.3
17-25 year	4	13.3
26-35 year	9	30.0
36-45 year	7	23.3
>46 year	9	30.0

Table 1 shows that the age range of people with schizophrenia is between the ages under 16 years old and more than 46 years old. The highest range was 9 respondents (30.0%) at the age of 26-35 years, 7 respondents (23.3%) at 36-45 years, and 9 respondents (30.0%) at >46 years old

Table 2.  
Distribution of Patient Anxiety Levels During Pre-test and Post-test (n=30)

Anxiety Level	Pre-test		Post-test	
	f	%	f	%
No Anxiety	10	33.3	19	63.3
Mild Anxiety	18	60.0	10	33.3
Moderate Anxiety	2	6.7	1	3.3
Severe Anxiety	0	0	0	0

Table 2 shows that after the intervention of progressive relaxation techniques, the level of anxiety felt by patients decreased. The number of patients who did not experience anxiety increased from 10 (33.3%) respondents to 19 (63.3%), respondents who experienced mild anxiety before the intervention decreased to 18 (60.0%) after the intervention decreased to 10 (33.3%) respondents, and respondents who experienced moderate anxiety also decreased from 2 (6.7%) to 1 (3.3%) respondents. The difference in the average anxiety level of respondents during the pre-test and post-test can be seen in the graph below:

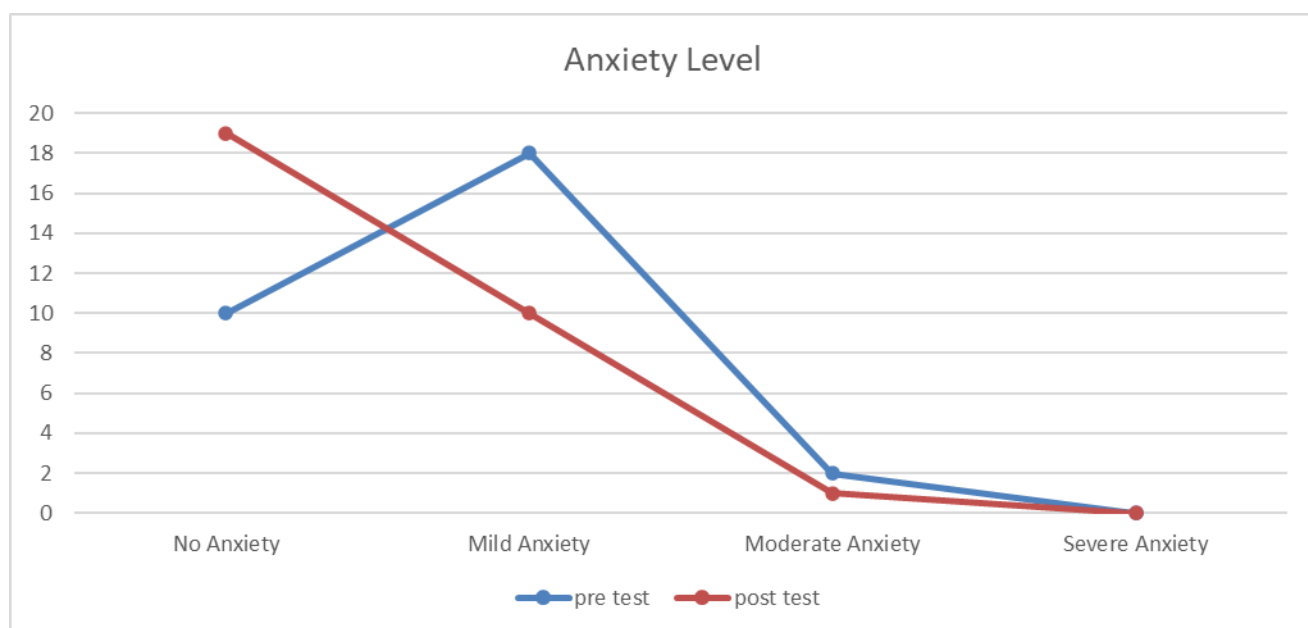


Table 3.  
Results of Pre and Post-Analysis of Anxiety Levels in Schizophrenia Patients (n=30)

Anxiety Level	Mean	Std. Deviation	p-value
Pre-Test	45.00	8.166	0.001
Post-Test	40.83	6.137	

Table 3 shows the findings of the Wilcoxon test of respondents anxiety levels before and after the intervention with a p-value of 0.001.  $H_0$  is rejected because the p-value is less than 0.05. Based on the above statistics, it can be concluded that progressive relaxation techniques have an effect on the anxiety level of schizophrenia patients at RSJD Surakarta because there is a difference in anxiety levels before and after the intervention.

## DISCUSSION

Schizophrenia occurs in Indonesia by 0.3% to 1% and usually affects people between the ages of 18 to 45 years, while some people with this disorder are 11 to 12 years old (Amelia Diny, 2013). The study's results showed that the age range of respondents was between 14 to 52 years. The majority of respondents who experienced schizophrenia were between the ages of 26-35 years as many as 9 respondents, (30.0%) 36-45 years old as many as 7 respondents (23.3%), and >46 years old, as many as 9 respondents (30.0%). Research conducted by Jusuf et al. (2024) stated that the greatest age frequency of people living with schizophrenia occurred at the age of 36-45 years, with as many as 13 respondents (52%) and at 26-35 years, as many as 4 respondents (16%), this is suspected to be related to internal and external pressures that occur during productive times and can trigger excessive stress. Another study that also discusses age characteristics conducted by Lisni et al. (2017) at a Mental Hospital in West Java found that the majority of schizophrenia patients are in the age range of young adults, namely 26-35 years (50.85%), followed by the age of 36-45 years (49.15%). This is in line with research conducted by Darsana & Suariyani (2020) at the Bali Mental Hospital found that the most dominant age group is adults (26-46 years old) at 58%, followed by the elderly (>46 years) at 31.6%, adolescents (12-25 years) account for 10.4%, while children (6-11 years) are rare (0.03%). Supported research Amalia & Hermawati (2022) noted the age distribution of schizophrenia patients, with the majority of patients being in the adult age range ( $\geq 25$  years) compared to adolescents (15-24 years). The productive age group (25-44 years) tends to have a higher prevalence, with a peak at 30-39 years.

This study aims to determine the level of anxiety experienced by individuals with schizophrenia. Based on the distribution of anxiety levels in schizophrenia patients during the pre-test in this study, it was found that 10 respondents (33.3%) did not experience anxiety, 18 respondents (60%) experienced mild anxiety, 2 respondents (6.7%) experienced moderate anxiety, and no respondents felt severe anxiety. On the other hand, after participating in the progressive relaxation training on the post-test, it was found that 10 respondents (33.3%) experienced mild anxiety, 1 respondent (3.3%) experienced moderate anxiety, and 19 respondents (63.3%) did not experience anxiety at all. Overall, in the pre-test or before progressive relaxation techniques were administered, some respondents experienced mild anxiety. The research conducted (Lisa et al., n.d.) noted that the anxiety level of schizophrenia patients in the experimental group before the progressive relaxation technique intervention was given, as many as 11 respondents (73%) experienced mild anxiety, and 4 respondents (27%) experienced moderate anxiety, after being given progressive relaxation intervention, the level of moderate anxiety in the respondents decreased to mild anxiety 15 (100%). Another research conducted by Lestari & Yuswiyanti (2020) explained that the level of anxiety in respondents before being given progressive relaxation was 10 (40%) respondents experienced moderate anxiety and 15 (60%) experienced severe anxiety, while after being given progressive relaxation, the level of moderate anxiety decreased to mild by 12 (48%)

respondents, moderate anxiety 11 (44%) respondents and severe anxiety 2 (8%) respondents. This is in line with research conducted by Hanifah et al. (2020) showed that before the progressive relaxation technique was carried out, 18 (40.9%) respondents experienced mild anxiety, 12 (27.3%) experienced moderate anxiety, and 12 (27.3%) experienced severe anxiety, while after being given progressive relaxation 20 (45.5%) respondents no longer experienced anxiety, 21 (47.7%) respondents experienced mild anxiety and 3 (6.8%) respondents still experienced severe anxiety.

Treatment for people with schizophrenia in a psychiatric hospital can help to reduce stress and improve daily activities. Appropriate treatment provided by psychiatric hospitals to schizophrenic patients is expected to reduce the causes of disorders or recurrences experienced by patients so that patients can carry out their daily activities as usual (Amelia Diny, 2013). Progressive relaxation is a technique developed by Edmond Jacobson in 1938, then adapted by Bernstein and Borkovec to reduce stress in physical and mental disorders. This technique centers on tense muscle activity and then relieves tension. The progressive relaxation techniques in the study Georgiev et al. (2012), carried out for 25 minutes, can provide a relaxation effect by tensing the muscles for 8 seconds and then relaxing for 30 seconds. Tables 3 show that schizophrenia patients at RSJD Surakarta reported a reduction in anxiety after intervention using progressive relaxation techniques. Based on the Wilcoxon statistical test, the average result of respondents before being given progressive relaxation intervention was 45.00, while after being given the intervention, the average level of anxiety was 40.83 with a p-value of 0.001.

The results were obtained from pre-test and post-test questionnaires on participants who reported a decrease in anxiety after being given progressive relaxation techniques. This is based on a study by Mumtazah et al. (2024), which found that respondents' anxiety levels decreased to 2.94 after receiving the progressive relaxation technique intervention, compared to an average score of 3.08 before the intervention. Research conducted by Carisa & Wahyuni (2022) regarding the effect of progressive relaxation on anxiety levels obtained an average result in the treatment group before being given a progressive relaxation intervention 34.43, while after being given the intervention, the average result was 15.55 with a p-value of 0.001. Another study conducted by Putra et al. (2022) showed that the average anxiety level of respondents before being given progressive relaxation intervention was 10.19, while after being given progressive relaxation, the average decreased to 6.94 with a p-value of 0.000, which showed that there were progressive relaxation techniques that affected reducing respondents anxiety. In line with research conducted by Nova & Tumanggor (2018), the average anxiety in the intervention group respondents was 25.92 before being given progressive relaxation techniques, while after being given the intervention, the average anxiety of the respondents decreased to 15.62 with a p-value of 0.000. In this study teaching progressive relaxation techniques to people with schizophrenia can significantly reduce their anxiety levels. It has been proven that teaching patients progressive relaxation techniques can reduce their negative psychological impact, as evidenced by the research of Hudiyawati et al. (2019), which obtained a p-value of 0.05 regarding the effect of this technique on stress, anxiety, and depression.

## **CONCLUSION**

Researchers who gave progressive relaxation interventions to individuals with anxiety experiencing schizophrenia found that most patients experienced mild anxiety (60.0%), which decreased significantly to (33.3%) after receiving the intervention. 3 respondents (10.0%) were 28 years old, 3 respondents (10.0%) were 46 years old, and 3 respondents (10.0%) were 50 years old, most of whom were schizophrenics. The p-value, as determined by the

Wilcoxon statistical test, is 0.001. Therefore, it can be said that providing progressive relaxation technique interventions to schizophrenic patients can help them reduce anxiety.

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