THE APPLICATION OF PROGRESSIVE MUSCLE RELAXATION THERAPY IN SCHIZOPHRENIC PATIENTS AT RISK OF VIOLENT BEHAVIOR: A CASE STUDY

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Abstract

Schizophrenia is a mental disorder that may be associated with a risk of violent behaviour a condition that has the potential to endanger oneself, others, or the environment. Currently, the risk of violent behavior remains a nursing challenge at psychiatric hospitals in East Jakarta. Data from the East Jakarta Psychiatric Hospital show an increase in cases from 224 in 2024 to 383 in 2025, with 91 cases recorded as of May 19, 2026. Progressive muscle relaxation therapy is one nonpharmacological intervention that can help reduce tension and stress responses. This study employed a descriptive method with a case study approach involving two respondents selected through purposive sampling. The objective of the study was to identify the effectiveness of nursing care for patients with schizophrenia at risk of violent behavior using progressive muscle relaxation therapy. Data were collected through interviews, observations, physical examinations, and documentation in accordance with the SDKI, SLKI, and SIKI standards. The measurement instruments used were the Overt Aggression Scale (OAS) and a therapy observation sheet. Progressive muscle relaxation therapy was administered for seven days, lasting 25-30 minutes per day; following the intervention, both participants showed a reduction in signs and symptoms of violent behavior, improved emotional control, and a more relaxed state. Both respondents' OAS scores decreased to 0, indicating a low-risk category. Progressive muscle relaxation therapy demonstrated benefits as a nonpharmacological nursing intervention in helping to control the risk of violent behavior in patients with schizophrenia.

Keywords: Nursing Care; Progressive Muscle Relaxation (PMR); Risk Of Violence; Schizophrenia.

1. INTRODUCTION

Schizophrenia is a mental disorder that may be associated with a risk of violent behaviour that is, behavior that has the potential to endanger oneself, others, or the environment (1), and is a syndrome or disease process that affects an individual's cognition, perception, emotions, behavior, and an individual's social functioning (Risk of Violent Behavior (RVB), manifested through excessive anger, threats, shouting, destruction of property, self harm, or attacks on others, thus requiring appropriate management and supervision by healthcare professionals; Suryanti & Ariani (2018)(2).

The World Health Organization (WHO) reports that globally, 1 in 300 (or 27 million) people live with schizophrenia. Stigma, discrimination, and human rights violations against people with schizophrenia are common. There are various effective treatment options for people with schizophrenia, and at least one in three people with schizophrenia will be able to make a full recovery (3). According to the 2023 Indonesian Health Survey (SKI), schizophrenia occurs in 4.0 per 1,000 households, and in DKI Jakarta, the prevalence ranges from 2.8% to 8.3% (Ministry of Health, 2023)(4). Case data from the East Jakarta Psychiatric Hospital show an increase in cases from 224 in 2024 to 383 in 2025, and as of May 19, 2026, 91 cases had been recorded (5).

People with schizophrenia may exhibit emotional reactions to frustration over unmet desires, threats to their physical and emotional needs, or challenges that manifest as anger which is a

fundamental factor in the emergence of aggression and violence. These emotions can be considered positive if expressed appropriately, but if anger is manifested through violence or aggression, it becomes a problem whether directed at the individual themselves or toward others such as self harm or harming others (Ministry of Health, 2023)(4). This nonpharmacological therapy is one of several interventions that involve physical activity, communication therapy, social therapy, spiritual therapy, and relaxation techniques. Progressive muscle relaxation is a non-pharmacological intervention that can help reduce tension and stress responses; this therapy is effective in helping patients at risk of violent behavior to alleviate physical and psychological symptoms. This technique works by suppressing the activity of the sympathetic nervous system and increasing the activity of the parasympathetic nervous system, thereby calming the body and triggering the release of endorphins, which play a role in reducing tension and enhancing a sense of well-being (Ma'sum et al., 2021)(6).

This progressive muscle relaxation therapy is designed to suppress the activity of the sympathetic nervous system and increase parasympathetic activity, thereby inducing a relaxation response characterized by a decrease in heart rate, blood pressure, and muscle tension. In addition, progressive muscle relaxation also affects the neuroendocrine system by lowering levels of stress hormones such as norepinephrine and increasing the body's sense of well-being (Aini et al., 2023)(7). Progressive muscle relaxation can help individuals identify which muscles are tense and then gradually release that tension until an optimal state of relaxation is achieved. This process leads to a reduction in excessive physiological activity, such as lower blood pressure and heart rate (Ismail et al., 2024)(8).

Progressive muscle relaxation techniques have been developed through research and have been shown to reduce violent behavior, as demonstrated in the study by Suryanti & Ariani (2018) titled "The Effect of Progressive Muscle Relaxation on Reducing Violent Behavior in Schizophrenia Patients at the Klaten Regional Psychiatric Hospital," which found that progressive muscle relaxation therapy was able to lower anger behavior scores in both subjects, though the reduction was not yet significant since both remained in the "escalation" category (4), and this study is also supported by the research by Destyany et al. (2023) titled "The Application of Progressive Muscle Relaxation on Signs and Symptoms of Patients at Risk for Violent Behavior at the Lampung Provincial Regional Psychiatric Hospital," which showed that progressive muscle relaxation therapy can help reduce signs and symptoms of violent behavior risk (9), This study is supported by the research by Cholifah & Agustin (2024), based on the results of implementing progressive muscle relaxation therapy on patients at risk of violent behavior in the Srikandi ward of the Dr. Arif Zainuddin Regional Psychiatric Hospital in Surakarta, which found that there was an effect on changes in signs and symptoms of violent behavior, evidenced by a decrease in these signs and symptoms on Day 1-11 cases in the moderate category, on day 2 - 10 cases in the moderate category and on day 3-6 cases in the mild category (10).

Progressive muscle relaxation therapy is an intervention that offers advantages in terms of cost, ease of use, and efficiency, as it does not require special equipment and can be applied in various healthcare settings. Progressive muscle relaxation therapy is also easy to understand and can be performed independently by patients at any time when signs of heightened emotions arise, thereby helping to improve self control (11). Thus, the study results illustrate the effectiveness of nursing care involving progressive muscle relaxation therapy in reducing signs and symptoms of violent behavior risk in patients with schizophrenia.

2. METHODOLOGY

The research method used was a descriptive method with a case study approach, focusing on the nursing process for patients with schizophrenia at risk of violent behavior, beginning with the assessment stage, through nursing diagnosis, planning, implementation, and evaluation. Data were collected through interviews, observations, physical examinations, and documentation. The sampling technique used was purposive sampling with a sample size of 2 subjects. The subjects were given progressive muscle relaxation exercises for 7 days, lasting 15–30 minutes each day, and the instrument used to measure changes in the risk of violent behavior was the OAS (Overt Aggression Scale) (12).

Nursing care for both subjects with the nursing diagnosis "Risk of Violent Behavior" (D.0146) (13) involved interventions focused on "Prevention of Violent Behavior" (I.14544) (14) through observation, therapeutic, and educational measures, and the standard outcome "Self-Control" (L.09076) (15), which include: a decrease in verbal threats toward others, a decrease in verbal

profanity, a decrease in aggressive behavior, a decrease in behavior that harms oneself or others, a decrease in behavior that damages the surrounding environment, a decrease in aggressive or violent outbursts, a decrease in loud voices, and a decrease in harsh speech.

3. RESULTS AND DISCUSSION

The case study was conducted over a period of 7 days in May 2026 with 2 subjects who met the established inclusion and exclusion criteria.

3.1. Subject Characteristics

Both subjects were adult males who had been diagnosed with schizophrenia and were receiving treatment at a hospital. During the assessment, data indicated that both subjects were at risk for violent behavior, as evidenced by verbal aggression, object-directed aggression, and self directed aggression; however, no evidence of aggression toward others was found. Each subject had a different aggression score based on the OAS scale: at the time of the assessment, the first subject had a score of 5 (moderate risk) and the second subject had a score of 9 (high risk). The first subject predominantly exhibited verbal aggression and aggression toward others, while the second subject predominantly exhibited aggression toward objects.

3.2 The Application of Progressive Muscle Relaxation Therapy

The results of the case study indicate that the provision of nursing interventions in the form of anger management and Progressive Muscle Relaxation (PMR) contributed to a reduction in signs and symptoms of violent behavior risk in both subjects. Based on measurements using the Overt Aggression Scale (OAS), there was a gradual change in aggression scores during the nursing care process; this not only affected observable aggressive behavior but also the subjects' ability to control emotional tension and anger responses.

Table 1: Overt Aggression Scale (OAS) Measurement Result

Aspek	Subject 1		Subject 2	
	Pre Day 1	**Post Day 7**	**Pre Day 1**	**Post Day 7**
Verbal Agression	2	0	3	0
Aggression toward objects	2	0	4	0
Self-directed aggression	1	0	2	0
Aggression toward others	0	0	0	0
Total score	**5**	**0**	**9**	**0**

Based on the table of measurement results using the Overt Aggression Scale (OAS), it was found that Subject 1, prior to receiving progressive muscle relaxation therapy, had a total score of 5, indicating aggressive behaviour particularly in the areas of verbal aggression, aggression toward objects, and self-directed aggression and was therefore categorized as having a moderate risk of violent behavior. After receiving progressive muscle relaxation therapy for 7 days, the score dropped to 0, indicating that none of the indicators of aggressive behavior were present, thus placing the subject in the low-risk category. These results demonstrate a reduction in the risk of violent behavior following progressive muscle relaxation therapy.

On the first day, before receiving progressive muscle relaxation therapy, the second subject had a total OAS score of 9, indicating that the subject still exhibited aggressive behavior, particularly in the areas of verbal aggression, aggression toward objects, and aggression toward others; thus, based on the OAS score, the subject was classified as high-risk. After 7 days of receiving the progressive muscle relaxation therapy nursing intervention, the total OAS score decreased to 0, indicating that aggressive behaviour including aggression toward objects, self-harm, and verbal aggression was no longer

observed. The table shows that progressive muscle relaxation therapy is effective in reducing the level of aggressiveness and the risk of violent behavior in Subject 2.

The results of this case study indicate that progressive muscle relaxation intervention, when performed gradually and continuously, can reduce physical and emotional tension, leading to a daily decrease in aggressive behavior.

4. CONCLUSIONS

This case study demonstrates that the administration of Progressive Muscle Relaxation therapy to patients with schizophrenia at risk of violent behaviour when administered continuously and combined with other nursing interventions can help reduce aggression levels while also controlling anger in the study subjects. However, since this study involved only two subjects, the effectiveness of the intervention still needs to be further evaluated using a larger sample size and statistical data to measure the effectiveness of Progressive Muscle Relaxation in reducing the risk of violent behavior in patients with schizophrenia.

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