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The Application of Progressive Muscle Relaxation Therapy to Reduce Signs and Symptoms in Patients at Risk of Violent Behavior at dr. RM. Soedjarwadi Regional Mental Hospital

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Abstract

Background: Risk for Violent Behavior (RPK) refers to aggressive actions that may result in harm to oneself or others, often triggered by unmet needs, perceived failure, frustration, or ineffective stress management. Non-pharmacological interventions play a crucial role in managing such behaviors, and one effective approach is Progressive Muscle Relaxation (PMR) therapy. **Objective:** This study aims to evaluate the effectiveness of Progressive Muscle Relaxation therapy in reducing signs and symptoms of violent behavior among patients at risk of aggression at Dr. RM. Soedjarwadi Regional Mental Hospital, Central Java. **Methods:** A descriptive case study design was employed, incorporating a pre-test and post-test approach using the RUFA (Rating Unit for Aggressive Behavior) observation sheet to assess changes in violent behavior. Two respondents were observed before and after the intervention. **Results:** Prior to the intervention, both respondents exhibited moderate levels of violent behavior, classified as Intensive Stage II, with baseline scores of 11 and 14, respectively. Following three consecutive days of PMR therapy, both respondents showed improvement, transitioning to Intensive Stage I (mild), with post-intervention scores of 8 and 9. **Conclusion:** Progressive Muscle Relaxation therapy demonstrates a positive impact in reducing violent behavior among psychiatric patients. The findings indicate a noticeable reduction in aggression levels after the intervention, suggesting that PMR is an effective non-pharmacological strategy for managing patients at risk of violent behavior.

Keywords: Risk of Violent Behavior, Decline, Progressive Relaxation

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1. BACKGROUND

Mental disorders represent disturbances in thinking processes, emotions, and behaviors that can significantly reduce a person's quality of life. A mental disorder is a behavioral syndrome involving symptoms of emotional distress affecting one or more

human functions, including psychological, behavioral, biological, and other interpersonal impairments (Rika Defiani, 2024). Mental disorders can be categorized into two main types: mild mental-emotional disorders and severe mental disorders (Ananda, 2021). Individuals suffering from mental disorders often experience impaired daily functioning due to loss of energy and interest in life. This apathetic condition interferes with daily activities and ultimately leads to a decline in the patient's level of independence. Among various mental disorders, schizophrenia is the most commonly encountered condition (Agustriyani, 2024).

Schizophrenia is a type of psychosis characterized by distorted thinking, perception, emotions, language, self-awareness, and behavior. It is associated with severe disability and can hinder personal performance and education. People with schizophrenia have a 2-3 times higher risk of dying earlier compared to the general population (Suhaily, 2023). According to data from the World Health Organization (WHO) in 2020, approximately 24 million people worldwide have schizophrenia. Schizophrenia is marked by significant disruptions in perception and changes in behavior, with symptoms including violent behavior (WHO, 2020). Based on WHO data from 2022, around 300 million people globally suffer from mental health disorders, including depression, bipolar disorder, dementia, and schizophrenia. Of these, about 24 million suffer specifically from schizophrenia (Mardiana & Fitri, 2025). In Indonesia, there has been a significant increase in the prevalence of mental disorders, reaching 7 per thousand households, meaning that out of every 1,000 households, seven contain family members suffering from mental disorders. The total number of affected individuals is estimated to be approximately 450,000 people (Hutabarat, 2020).

According to reports from the Central Java Provincial Health Office, in 2019, 81,983 people were suffering from severe mental health disorders, and 68,090 received health services. In 2020, it was reported that one in every four residents of Central Java, or about 25%, would experience mild mental disorders, while those with severe mental disorders averaged around 12,000 people. In 2021, as many as 81,189 people experienced mental health disorders, and 69,936 received health care. From this data, it can be concluded that the prevalence of mental disorders in Central Java Province

increased annually, reaching 11,819 cases (Widowati et al., 2023). Based on preliminary studies conducted at Dr. RM. Soedjarwadi Provincial Mental Hospital in Central Java, in 2024 there were 4,305 inpatients, with hallucinations occurring in 54.23% of cases, self-care deficits in 14.56%, risk of violent behavior in 9.47%, social isolation in 6.13%, delusions in 5.66%, suicidal risk in 5.01%, and low self-esteem in 4.9%. Based on initial observations conducted from December 2024 to February 2025 in Flamboyan Ward, there were 7 patients identified with the problem of risk for violent behavior (RSJD Dr. RM Soedjarwadi Provinsi Jawa Tengah, 2025).

Risk for violent behavior refers to a form of behavior aimed at physically or psychologically harming someone. Violent behavior occurs due to accumulated frustration from repeated failures or unmet desires, leading individuals to act aggressively (Fajariyah & Tresna, 2023). The impact of such behavior includes losing control over oneself and engaging in actions that harm others, oneself, and the surrounding environment. Therefore, reducing violent behavior among patients requires strategies involving improvements in physical condition, physical needs, emotional, mental, spiritual, cognitive, and social aspects (Jevy, 2023).

The management of risk for violent behavior can be approached through pharmacological and non-pharmacological interventions. One form of non-pharmacological therapy that can be taught to patients to help control violent behavior is the progressive muscle relaxation technique (Verawati, 2021). Progressive muscle relaxation is an easy and widely practiced relaxation method. This procedure achieves muscle relaxation through two steps: first, tensing a specific muscle group, then releasing the tension to achieve a relaxed state (Nur'Ainingsih, 2023). According to Setiawan et al. (2021), progressive muscle relaxation focuses on muscle activity by identifying tense muscles and reducing tension through relaxation techniques to achieve a relaxed feeling. The technique starts by tensing and relaxing the muscles in the toes. It progressively works up to the neck and head, improving coping with stressors without requiring imagination, patience, or suggestion (Armina et al., 2024). Research findings by Pratama et al. (2021) show that progressive muscle relaxation therapy effectively reduces the scores of signs and symptoms related to the risk of violent behavior. Based on the background above,

the researcher is interested in applying progressive muscle relaxation therapy to address the signs and symptoms of violent behavior risk among patients at Dr. RM Soejarwadi Provincial Mental Hospital in Central Java.

2. METHODS

The research design employed in this study is a descriptive case study aimed at illustrating or describing a particular condition of the research subjects. The study involves two respondents using a pretest-posttest approach. Prior to the implementation of progressive muscle relaxation therapy, a pretest was conducted through interviews and by administering the RUFA (General Response of Adaptive Function) observation sheet, which measures the scale of violent behavioral risk. This is intended to determine the initial level of violent behavioral risk in the respondents. After the application of progressive muscle relaxation therapy, a posttest was carried out using the same method—interviews and measurement of the violent behavioral risk scale—to compare the levels of violent behavior risk before and after the therapy.

The subjects of this research consist of two respondents selected based on inclusion and exclusion criteria. Inclusion criteria refer to the general characteristics that define the target and accessible population. In contrast, exclusion criteria eliminate specific subjects who initially meet the inclusion criteria for specific reasons. The inclusion criteria for this study are: willingness of the patient to participate as a respondent, presence of violent behavioral risk, and being a patient with an intensive II RUFA score at Dr. RM. Soejarwadi Provincial Mental Hospital of Central Java. Exclusion criteria include: physical disability or refusal to participate in the study.

The application of progressive muscle relaxation therapy was implemented on two patients diagnosed with violent behavioral risk and admitted to Dr. RM. Soejarwadi Provincial Mental Hospital of Central Java. Both patients meet the inclusion and exclusion criteria. Subject T is a 45-year-old male from Kadiloko who is married, Javanese, graduated from high school, and works as a farmer. He was admitted on March 1st, 2025, due to anger episodes, aggression toward his siblings, and wandering without returning home. His predisposing factors include unpleasant life experiences, and there is no family history of mental disorders. His precipitating factors include mental disturbances, restlessness, frequent anger, and aggression. Upon observation,

he appeared restless and confused, unable to express his feelings clearly. His vital signs were within normal limits: blood pressure 128/76 mmHg, pulse rate 75 bpm, body temperature 36.3°C.

Subject C is a 38-year-old male from Banyumas who is married, Javanese, a high school graduate, and works as a boarding school teacher. He was admitted on March 2nd, 2025, due to uncontrolled aggression at home, unclear, angry outbursts, inappropriate speech, and unprovoked violence. Similar to Subject T, his predisposing factors include personal distressing experiences without any family history of mental illness. His precipitating factor was brought about by his aggressive behavior at home, including hitting others without cause. During observation, he kicked the room door without reason and engaged in inappropriate verbal expressions. His vital signs: blood pressure 135/82 mmHg, pulse rate 81 bpm, body temperature 36.1°C.

The study was conducted at Dr. RM. Soejarwadi Provincial Mental Hospital in Central Java, specifically in Flamboyan ward, between March 6th and 8th, 2025, with scheduling adjusted according to the availability of the patients. The data collection process begins with preparation, including submitting the final project title to the supervisor, arranging necessary permits for the research location, and obtaining the Ethical Clearance (EC) letter from the Head of the Ethics Committee of the hospital, as well as the head nurse of Flamboyan ward. Once these administrative requirements are fulfilled, the research may commence.

During the implementation phase, respondents were selected based on predetermined criteria, and an explanation regarding the progressive muscle relaxation therapy was provided to address signs and symptoms of violent behavioral risks. The researcher approached the respondents, explained the benefits of the study, and ensured they understood their rights, including the right to refuse participation. After guaranteed confidentiality, each respondent is asked to sign a consent form. Initial observations and interviews were conducted before the therapy. Each progressive muscle relaxation therapy session lasts approximately 25–30 minutes. After the therapy, follow-up observations and interviews were repeated, and all findings were recorded on observation sheets. The pretest and posttest results were compared over the three-day implementation period.

Documentation was performed throughout the process, including recording the respondents' consistency in participating in the therapy sessions and

documenting the outcomes before and after applying progressive muscle relaxation. Violent behavior was measured using the RUFA assessment, which consists of four indicators: behavior, verbal expression, emotion, and physical actions. Each indicator contains 5–6 categories that are checked accordingly during observation. The scoring system categorizes the level of violent behavioral risk into three intensities: Intensive I (score 1–10), indicating mild risk, Intensive II (score 11–20), indicating moderate risk, and Intensive III (score 21–30), indicating severe risk. Data analysis was presented as observation sheets using the RUFA questionnaire.

Ethical considerations are strictly applied in this study involving human subjects. Informed consent must be obtained, ensuring that each subject receives complete information regarding the purpose of the study, understands their right to participate or decline voluntarily, and is assured that collected data will only be used for academic development. Beneficence emphasizes that the study should benefit the respondents. Non-maleficence ensures that no harm or danger is caused to the respondents through the research process. Anonymity is maintained by not including the real names of respondents in any documentation; instead, codes are used. Veracity highlights the importance of honesty in delivering accurate and truthful information regarding the study's objectives, benefits, and procedures. Justice ensures fairness in selecting respondents without discrimination. Confidentiality guarantees that all collected information remains private and secure, with only selected data reported in the final research outcome.

3. RESULTS

This study was conducted in the Flamboyan inpatient ward of Dr. RM. Soedjarwadi Regional Mental Hospital, Central Java Province. The implementation of Progressive Muscle Relaxation (PMR) therapy involved interventions for two male patients admitted with a shared nursing diagnosis of Risk for Violent Behavior. The therapy was administered over a period of three consecutive days, from March 6, 2025, to March 8, 2025. Both patients received PMR sessions aimed at reducing psychological tension and managing symptoms associated with aggressive behavioral tendencies. The intervention was carried out in a structured manner within the stable psychiatric care unit, with close observation and documentation of behavioral responses throughout the implementation period.

Volume 5 Issue 2, August 2025, pp 171-189
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Table 1. Distribution of the Violence Behavior Change Observation Sheet Before Implementation of Progressive Muscle Relaxation Therapy in the Flamboyan Ward, Dr. RM. Soedjarwadi Regional Mental Hospital

Respondents	Date	Score	Results	Category
Mr. T	6/3/2025	11	Intensive 2	Moderate
Mr. C	6/3/2025	14	Intensive 2	Moderate

Based on Table 1, prior to the implementation of Progressive Muscle Relaxation (PMR) therapy, both patients exhibited clinical manifestations consistent with moderate levels of aggression. Patient 1 (Mr. T) presented with irritability, emotional lability, staring eyes, elevated vocal tone, facial flushing, diaphoresis, intense gaze, and subjective reports of feeling unsafe. These behavioral indicators were assessed using the Rating Unit for Aggressive Behavior (RUFA) observation sheet, resulting in an initial score of 11 on day one, classified as Intensive Stage II (moderate). Similarly, Patient 2 (Mr. C) displayed irritability, staring eyes, coarse speech, emotional lability, muscle tension, episodes of anger, feelings of insecurity, diaphoresis, and a sharp, intense gaze. His baseline RUFA score was 14, also categorized within Intensive Stage II (moderate), reflecting a comparable degree of aggressive behavioral risk prior to the intervention. These findings indicate that both patients entered the therapy phase with significant, albeit manageable, symptoms of potential violence.

Table 2. Distribution of the Violence Behavior Change Observation Sheet After Implementation of Progressive Muscle Relaxation Therapy in the Flamboyan Ward, Dr. RM. Soedjarwadi Regional Mental Hospital

Respondents	Date	Score	Results	Category
Mr. T	8/3/2025	8	Intensive 2	Mild
Mr. C	8/3/2025	9	Intensive 2	Mild

Based on Table 2, the implementation of Progressive Muscle Relaxation (PMR) therapy, both patients demonstrated notable improvements in behavioral symptoms associated with violent behavior. Patient 1 (Mr. T) exhibited reduced aggression, with observable changes including a moderate vocal tone, absence of facial flushing, cessation of diaphoresis, and verbal expression of feeling safe. By the third day of intervention, the patient's score on the Violence Behavior Change Observation Sheet (RUFA) decreased from 11 to 8, indicating a shift from Intensive Stage II (moderate) to Intensive Stage I (mild).

Volume 5 Issue 2, August 2025, pp 171-189
https://ebsina.or.id/journals/index.php/jkki
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Similarly, Patient 2 (Mr. C) showed significant behavioral improvement, with cessation of coarse speech, reduced episodes of anger, and no longer exhibiting diaphoresis. His RUFA score also declined from 14 to 8 by day three, reflecting a comparable transition to Intensive Stage I (mild). These findings suggest that PMR therapy was effective in reducing the intensity of aggressive behaviors in both patients, indicating a positive response to the non-pharmacological intervention.

Table 3. Distribution of the Violence Behavior Change Observation Sheet Before and After Implementation of Progressive Muscle Relaxation Therapy in the Flamboyan Ward, Dr. RM. Soedjarwadi Regional Mental Hospital

Day	Respondents	Violent Behavior Level Score	
		Before progressive muscle relaxation therapy	After progressive muscle relaxation therapy
Thursday, March 6, 2025	Mr. T	11	10
	Mr. C	14	11
Friday, March 7, 2025	Mr. T	10	9
	Mr. C	12	10
Saturday, March 8, 2025	Mr. T	9	8
	Mr. C	10	9

Based on Table 3, the implementation of Progressive Muscle Relaxation (PMR) therapy over three consecutive days resulted in a progressive reduction in aggressive behavior scores for both patients, as measured by the Violence Behavior Change Observation Sheet (RUFA). Patient 1 (Mr. T) began with a baseline score of 11 on day one, classified as Intensive Stage II (moderate). Following the first PMR session, the score decreased to 10, indicating a transition to Intensive Stage I (mild). On day two, the pre-intervention score was 10, and after the second session, it further declined to 9, remaining within Intensive Stage I. By day three, the initial score was 9, and after the final PMR session, it dropped to 8, consistent with mild aggression. Similarly, Patient 2 (Mr. C) started with a higher baseline score of 14 (Intensive Stage II, moderate). After the first intervention, the score decreased to 11, still within moderate range. On day two, the pre-therapy score was 12, which reduced to 10 post-intervention, reflecting a shift to Intensive Stage I (mild). On the third day, the score prior to therapy was 10, and after the final PMR session, it further declined to 9, maintaining the classification of mild aggression. These findings demonstrate a consistent trend of behavioral improvement in both patients, with PMR therapy contributing to a gradual reduction in the intensity of violent

Volume 5 Issue 2, August 2025, pp 171-189
https://ebsina.or.id/journals/index.php/jkki
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behaviors over the three-day intervention period.

Table 4. Distribution of Comparison of final results before and after progressive muscle relaxation therapy in the Flmboyan ward of Dr. RM. Soejarwadi Klaten Mental Hospital.

Respondents	Date	Intervention	Violent Behavior Level Score
Mr. T	6/3/2025	Before progressive muscle relaxation therapy	11
	8/2/2025	After progressive muscle relaxation therapy	8
Mr. C	6/3/2025	Before progressive muscle relaxation therapy	14
	8/2/2025	After progressive muscle relaxation therapy	9

The case study findings indicate that the application of progressive muscle relaxation (PMR) therapy effectively contributed to a reduction in violent behavior in both patients. In patient 1 (Mr. T), the aggressive behavior score decreased from 11 to 8 following the intervention, reflecting a shift from intensive stage ii (moderate) to intensive stage I (mild). Similarly, in patient 2 (Mr. C), the score improved from an initial 14 to 9 post-intervention, also indicating a transition from moderate to mild aggression. This decline in aggression levels suggests enhanced self-regulation and improved emotional control in both individuals. The observed reduction in behavioral intensity demonstrates that pmr therapy may play a significant role in helping patients manage and control their aggressive impulses, thereby supporting its use as an effective non-pharmacological intervention in the management of patients at risk for violent behavior.

4. DISCUSSION

Risk of Violent Behavior Before the Implementation of Progressive Muscle Relaxation Therapy

Based on the observation results using the General Response of Adaptive Function (RUFA), both respondents, Mr.T and Mr.C, were categorized as having moderate risk (Intensive II) of violent behavior before the implementation of progressive muscle relaxation therapy. Mr.T scored 11, while Mr.C scored 14, both falling into the moderate category.

Before receiving progressive muscle relaxation therapy, both respondents exhibited signs of moderate-level aggressive behavior. They frequently engaged in environmental aggression, such as hitting doors and displaying verbal

hostility. This aligns with Ernawati et al. (2020), who stated that patients with a risk of violent behavior typically show symptoms such as self-directed, interpersonal, or environmental violence—either verbally or non-verbally—and often demonstrate impulsive behaviors. From this perspective, it can be concluded that violent or aggressive behavior refers to actions intended to harm or injure oneself, others, groups, or the environment. These behaviors may manifest verbally, physically, or psychologically, potentially leading to various negative consequences, including physical trauma, psychological disturbances, or even death (Amalia et al., 2023).

Risk of violent behavior is defined as a condition in which an individual engages in actions that endanger themselves or others, either physically or psychologically. This behavior is characterized by emotional outbursts such as rage and uncontrollable anxiety. These responses arise as a form of resistance to stressors and may manifest as actual acts of violence, directed toward oneself, others, or the surrounding environment. The violence can occur verbally or nonverbally, resulting in both physical and mental harm (Sasongko & Hidayati, 2020).

During the initial assessment, Mr.T was classified under Intensive II, showing signs such as tense facial expressions, sharp gaze, and glaring eyes. Meanwhile, Mr.C exhibited similar symptoms, including tension, high-pitched tone, and harsh speech. According to Munandar et al. (2019), individuals displaying violent behavior often show indicators such as verbal threats, use of offensive language, loud or curt speech, attacking others, self-harm, damaging property, and exhibiting tense facial expressions such as sharp glances or flushed faces.

Risk of Violent Behavior After the Implementation of Progressive Muscle Relaxation Therapy

The application of progressive muscle relaxation therapy over three consecutive days, with each session lasting approximately 25–30 minutes, reduced aggressive behavior among the respondents. Several factors contributed to this decrease, particularly the effectiveness of progressive muscle relaxation therapy. Throughout the sessions, both respondents emonstrated enthusiasm and followed the process calmly and controllably, occasionally asking questions to the researcher.

Mr.T reported feeling calmer and more relaxed during the therapy sessions, while Mr.C showed eagerness and motivation to participate actively. At

times, he even independently practiced the techniques without prior instruction. In addition to the direct effects of the therapy, therapeutic communication strategies played a crucial role in psychiatric nursing care. Effective communication supports emotional stability, facilitates better social interaction, and helps meet basic psychological needs. Furthermore, appropriate communication aids in reinforcing coping mechanisms and supports the continuity of therapy (Wuryaningsih et al., 2020).

Both respondents demonstrated a slight decrease in violent behavior risk on the first day following the intervention. For Mr.T, who initially was at Intensive II (moderate) with tense facial expressions, sharp gaze, and glaring eyes, there was a noticeable improvement in behavior after the therapy, resulting in a reduction to Intensive I (mild). Similarly, Mr.C, who previously displayed tension, a high-pitched voice, and rude speech, also showed behavioral improvements, shifting from Intensive II to Intensive I.

This finding is supported by A. Agus (2021), who found that progressive muscle relaxation therapy enables patients to control anger better when no such therapy is applied.

Development Risk of Violent Behavior Before and After the Implementation of Progressive Muscle Relaxation Therapy

Based on applying progressive muscle relaxation therapy using the General Adaptive Function Response (RUFA) observation tool, patient Mr.T was at stage II intensive (moderate), showing signs such as a tense facial expression, sharp gaze, and glaring eyes. However, after receiving progressive muscle relaxation therapy, the patient showed slight behavioral improvement compared to before the therapy and moved to stage I intensive (mild). Meanwhile, patient Mr.C was also at stage II intensive (moderate) prior to the therapy, showing tension, high-pitched tone, and rude speech.

Patients were re-measured using the RUFA observation sheet on the first day after implementation. For Mr.T, the result was a score of 10 categorized under stage I intensive (mild), which is lower than the initial score of 11 obtained before the therapy. The patient reported feeling slightly relieved and relaxed with reduced anger. Mr. C's measurement after the therapy resulted in a score of 14, categorized under stage II intensive (moderate), which is higher than his initial score of 14 but decreased afterward to 11,

categorized under stage II intensive (moderate).

On the second day after receiving progressive muscle relaxation therapy, Mr.T showed a decrease in the intensity level of violent behavior with a score of 9, categorized under stage I intensive (mild). The patient reported experiencing calmness and relaxation during the therapy and stated that his emotions were more controlled. Compared to the previous day, Mr.T showed greater enthusiasm for participating in progressive muscle relaxation therapy. Meanwhile, Mr.C scored 10, categorized under stage I intensive (mild). The patient remained enthusiastic about the therapy and demonstrated improved ability to perform the progressive muscle relaxation independently without guidance, as he had memorized the movements. In addition, the patient no longer displayed aggressive behaviors such as hitting or kicking doors when his wishes were not immediately fulfilled. He became more active in interacting with other patients and showed better social behavior, such as initiating conversations and joking with the nursing staff.

By the third day, Mr.T showed a more significant decrease in violent behavior intensity than the previous day, with a score of 8 categorized under stage I intensive (mild). The patient reported no longer feeling angry and stated that his emotions had become more stable and relaxed after the therapy. Meanwhile, Mr.C's score dropped to 9, also categorized under stage I intensive (mild). The patient mentioned that besides performing the progressive muscle relaxation at the designated time and place, he had also started practicing it independently during free time in his room, which helped him feel more relaxed.

Handling violent behavioral risks can be done through two approaches: pharmacological and non-pharmacological. One form of non-pharmacological therapy that can be taught to patients to manage violent behavior is the progressive muscle relaxation technique (Ariska Mega Utami, 2024). Progressive muscle relaxation is an easy relaxation technique that has been widely practiced. This procedure achieves progressive muscle relaxation through two steps: tensing a group of muscles and then releasing the tension to achieve relaxation (Julita Nur Cholifah, 2024).

This aligns with Setyaningrum's research (2024), where patients who received progressive muscle relaxation therapy became less prone to outbursts and physical aggression when disturbed by others, changing from frequently hitting to never hitting, and from often speaking

rudely and harshly to never doing so after the intervention.

Comparison of Results Risk of Violent Behavior Before and After Progressive Muscle Relaxation Therapy

Based on the results obtained from applying progressive muscle relaxation therapy to two respondents with violent behavioral risks over three days, each session lasting 25–30 minutes, Mr.T achieved a final score of 8, categorized under stage I intensive (mild), while Mr.C scored 9, categorized under stage I intensive (mild). Both respondents ended up in the same category but with different scores, which could be influenced by several factors, one of which is emotional control. Progressive muscle relaxation is used to manage emotions, reduce muscle tension caused by stress or anger, and help patients reach a relaxed state. This technique helps patients recognize and manage bodily tension before reaching an emotional escalation that may lead to aggressive behavior (Mubin et al., 2024).

Other factors influencing these differences include aggressive behavior. Although Mr.T exhibited withdrawn behavior and foul language, he did not display severe physical aggression like Mr.C. Mr.C's more intense aggressive behavior, such as kicking and hitting doors, required a more intensive approach and longer time to achieve improvement. Additionally, Mr.C still exhibited verbal aggression, such as swearing and arguing. This corresponds with Putri Ayu & Sari's research (2023), which showed that progressive muscle relaxation therapy effectively reduces violent behavior in schizophrenia patients. After three days of implementation, patients showed decreased aggressiveness, emotional stability, and improved eye contact. Patients reported feeling calmer and more relaxed.

The progressive muscle relaxation therapy given to patients with violent behavior significantly affected indicators such as behavior, verbal expression, emotion, and physical condition. Regarding behavioral indicators like tantrums, defiance, threats, and glaring eyes, patients ceased displaying these behaviors. On verbal indicators like rude speech, high intonation, arguing, and insulting others, patients improved to moderate intonation and stopped being rude, glaring, or arguing. Emotional indicators such as anger, mood swings, irritability, tension, brooding, and feelings of insecurity changed into reduced irritability and fewer feelings of insecurity. On physical indicators like flushed face, sharp gaze, short breath, sweating, and

increased blood pressure, patients experienced improvements such as lowered blood pressure, no sweating, and normal breathing. This aligns with Setyaningrum's research (2024), where patients who received progressive muscle relaxation therapy stopped easily lashing out and physically attacking others when disturbed, changing from always speaking rudely and harshly to never doing so after the intervention.

Therapy assessment outcomes vary among clients, even if they receive the same treatment. According to previous studies, clients who underwent progressive muscle relaxation therapy showed significant changes, such as ceasing self-harm or harming others and the surrounding environment. Various client experiences with violent behavior during assessment revealed differing score outcomes depending on individual factors such as biological factors, psychological factors, sociocultural factors, and predisposing factors like gender, socioeconomic status, race/ethnicity, age, and education level (Hidayati et al., 2024).

According to Alya Aisyah Putri's research (2023), progressive muscle relaxation is an effective and safe technique to help RPK (Risk of Violent Behavior) patients control anger, reduce muscle tension, and enhance stress-coping abilities. This technique can serve as an essential part of care planning for patients with violent behavioral risks.

Thus, it has been proven that after receiving progressive muscle relaxation therapy, violent behavior can be reduced because this technique lowers stress and emotions while providing a sense of relaxation and self-control. Therefore, progressive muscle relaxation therapy is beneficial for patients exhibiting violent behavior. This indicates that there is a difference in violent behavior before and after progressive muscle relaxation therapy among patients with violent behavior in the Flamboyan Room of Dr. RM. Soejarwadi Provincial Mental Hospital, Central Java Province.

5. CONCLUSION

Based on the case study above, progressive muscle relaxation therapy is effective in reducing aggressive behavior and enabling patients to control their violent tendencies better. Before undergoing the therapy, both Patient 1 and Patient 2 were at Intensive Level II (moderate). After receiving progressive muscle relaxation therapy, both patients showed a decrease in aggression levels to Intensive Level I (mild), with Patient 1 scoring 8 and Patient 2 scoring 9. Furthermore, both patients demonstrated

a consistent decline in aggression scores after each therapy session, indicating improvement over time. For Patient 1 (Mr. T), the score decreased from 11 (Intensive Level II) on day 1 to 10 (Intensive Level I), then to 9 on day 2, and further to 8 on day 3. Similarly, Patient 2 (Mr. C) decreased from an initial score of 14 (Intensive Level II) to 11 on day 1, 10 on day 2, and 9 on day 3. These results suggest a positive response to the therapy. Therefore, it is recommended that educational institutions use these findings as a reference for teaching non-pharmacological interventions in managing clients at risk for aggressive behavior. Nurses are encouraged to incorporate progressive muscle relaxation into daily therapeutic activities in inpatient settings as a non-pharmacological method to manage aggressive tendencies. Future researchers should coordinate with ward nurses before conducting similar studies to ensure no other nursing interventions are administered during therapy, thereby maintaining the accuracy and validity of the research outcomes.

AUTHOR CONTRIBUTIONS

The author contributes in conceptualization, data collection and analysis Shiba Qurrotu 'Ainin, Amalia Arifatul Diktina, and Wahyu Reknoningsih. Writing and manuscript revisions: Shiba Qurrotu 'Ainin.

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CONFLICT OF INTEREST

The authors declare that there are no conflicts of interest in this research.

DATA AVAILABILITY STATEMENT

The data are available from the corresponding author upon reasonable request.

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