

## NURSING CARE FOR PATIENTS AT RISK OF VIOLENT BEHAVIOR THROUGH THE IMPLEMENTATION OF PROGRESSIVE MUSCLE RELAXATION

**Dina Adelia<sup>a,\*</sup>, Rina Herniyati<sup>b</sup>, Emulyani<sup>a,b</sup>, Cindy Febriyeni<sup>4b,c</sup>**

Program Studi Profesi Ners, Fakultas Keperawatan, Institut Kesehatan Payung Negeri  
Pekanbaru, Indonesia  
Public Health Office Riau Province

**\*Corresponding author: Email: dinaadelia2003@gmail.com**

### Abstract

Violent behavior is one of the main symptoms commonly observed in patients with mental disorders and poses a serious problem in psychiatric nursing care. While pharmacological approaches are frequently used, non-pharmacological interventions such as Progressive Muscle Relaxation (PMR) therapy are considered effective in reducing physical and emotional tension. The purpose of this study was to describe the implementation of nursing care using PMR for patients at risk of violent behavior at Tampan Psychiatric Hospital in Pekanbaru. The study employed a case study approach involving two patients diagnosed with a risk of violent behavior who exhibited signs of aggressiveness, such as sharp gazes, loud speech tones, and threatening behaviors. The PMR intervention was conducted over three consecutive days, with each session lasting 15–20 minutes. The results showed a significant reduction in symptoms of violent behavior following the intervention, with patients demonstrating improved anger control, increased calmness, and reduced aggressive expressions. PMR therapy facilitates activation of the parasympathetic nervous system, which decreases physiological stress and enhances patients' self-control. In conclusion, PMR is effective as a non-pharmacological intervention in reducing symptoms associated with the risk of violent behavior and can serve as an alternative approach in evidence-based psychiatric nursing practice.

**Keywords:** Progressive Muscle Relaxation; Risk of Violent Behavior; Psychiatric Nursing

### INTRODUCTION

Violent behavior is a manifestation of ineffective coping or an individual's inability to control anger, which is expressed through aggressive actions. Ineffective coping mechanisms may lead an individual to exhibit signs and symptoms of violent behavior [1]. Violent behavior is a condition characterized by a loss of behavioral control that may be directed toward oneself, others, or the environment. Self-directed violent behavior may manifest as self-harm, suicidal actions, or self-neglect when an individual is unable to regulate their emotions—commonly referred to as ineffective coping [2]. This disorder is frequently observed in patients with schizophrenia or other severe mental illnesses.

According to the World Health Organization (WHO), approximately 970 million people worldwide experience mental disorders, with a significant proportion exhibiting symptoms of aggressiveness [13]. In Indonesia, four out of every one hundred individuals suffer from mental disorders, with the highest prevalence found in Yogyakarta (5.9%) and the lowest in

Bali (1.7%). Meanwhile, in Riau Province, the prevalence reaches 2.6% [3]. More than 86% of psychiatric patients hospitalized in mental health institutions display violent behavior that endangers not only the patients themselves but also healthcare providers and the surrounding environment.

If not properly managed, violent behavior may cause clients to harm themselves, hit or injure others, and damage their surroundings [4]. The management of violent behavior generally involves pharmacological therapy, primarily through the administration of antipsychotic drugs. However, non-pharmacological interventions, such as relaxation techniques, can be beneficial in controlling the risk of violent behavior. One such technique is Progressive Muscle Relaxation (PMR), which has been proven effective in reducing stress and improving self-control.

PMR is a progressive muscle relaxation technique introduced by Edmund Jacobson and has been adapted into psychiatric nursing interventions. PMR works by alternately tightening and relaxing muscle groups, helping the body distinguish between tension and relaxation. Previous research reported a 54.1% improvement in patients' anger control after four days of PMR implementation [5]. Additionally, other studies have shown a decrease in violent behavior symptoms, such as loud speech, sharp gazes, and physical tension, following the application of PMR in patients at risk of violent behavior [6]. Based on these findings, this study aims to describe evidence-based nursing care using Progressive Muscle Relaxation (PMR) as an intervention for patients at risk of violent behavior at Tampan Psychiatric Hospital, Pekanbaru, with the goal of improving quality of life and reducing aggression risk.

## METHODS

This study employed a case study approach with the application of Evidence-Based Nursing Practice (EBNP). The research subjects consisted of two patients diagnosed with a risk of violent behavior in the Mandau Ward of Tampan Psychiatric Hospital, Pekanbaru. The inclusion criteria included patients exhibiting signs of aggressiveness, being cooperative, fully conscious, and willing to participate in the intervention. The implementation of therapy was carried out over three consecutive days, with each session lasting 15–20 minutes. The stages of implementation included: (1) an initial assessment of the signs and symptoms of violent behavior, (2) providing education regarding the objectives and procedures of Progressive Muscle Relaxation (PMR), (3) conducting PMR exercises using video guidance and direct instructions, and (4) evaluating the patients' physiological and psychological responses after therapy. Data were collected through behavioral observation, vital sign measurement, and anger control assessment using an observation sheet [6]. Data analysis was performed descriptively to illustrate changes in signs and symptoms before and after the intervention.

## RESULTS

The results of the intervention showed a significant decrease in the signs and symptoms associated with the risk of violent behavior after three days of PMR implementation, as presented in the following table.

***Tabel 1 Results of PMR Movement Implementation***

Movement	Implementation					
	Tn. R			Tn. A		
	Day1	Day2	Day3	Day1	Day2	Day3
1.	Active	Active	Active	Active	Active	Active
2.	Active	Active	Active	Active	Active	Active
3.	Passive	Passive	Active	Active	Active	Active
4.	Active	Active	Active	Active	Active	Active
5.	Passive	Active	Active	Active	Active	Active
6.	Passive	Passive	Active	Passive	Active	Active
7.	Active	Passive	Active	Active	Active	Active
8.	Passive	Active	Passive	Active	Active	Active
9.	Passive	Passive	Active	Passive	Passive	Active

Based on the table above, the implementation of PMR therapy for Mr. R progressed well and showed improvement each day. On the first day, the PMR exercises were performed with seven active movements and two passive movements. On the second day, the therapy included eight active movements and one passive movement. On the third day, all PMR exercises were performed actively. The implementation of PMR therapy for Mr. A also progressed well and demonstrated daily improvement. On the first day, the PMR exercises were performed with five active movements and four passive movements. On the second day, the therapy included six active movements and three passive movements. On the third day, the PMR exercises were carried out with eight active movements and one passive movement.

***Tabel 2. Signs and Symptoms Before and After PMR Therapy***

Nu mb er	Sign and Symptoms	Patient Response Tn. R				Patient Response Tn. A			
		Pre- Test	Post-Test			Pre- Test	Post-Test		
		Do	D1	D2	D3	Do	D1	D2	D3
1.	Threatening	✓	✓	✓		✓			
2.	Uttering harsh or abusive language							✓	
3.	Speaking in a loud tone	✓	✓	✓		✓	✓		✓
4.	Speaking angrily or harshly	✓	✓			✓	✓	✓	✓
5.	Attacking people nearby								
6.	Harming oneself and others								

7.	Damaging the environment								
8.	Displaying rude, aggressive, or violent behavior						✓	✓	
9.	Staring intensely								
10.	Sharp gaze	✓	✓	✓	✓	✓			
11.	Clenching fists	✓				✓	✓		
12.	Tightly closed jaw								
13.	Showing facial redness	✓				✓			
14.	Appearing physically tense								
	<b>Skor</b>	<b>6</b>	<b>4</b>	<b>3</b>	<b>1</b>	<b>6</b>	<b>4</b>	<b>3</b>	<b>2</b>

The table above shows that in the first patient (Mr. R), the number of violent behavior risk symptoms decreased from six to one, while in the second patient (Mr. A), it decreased from six to two.

***Tabel 3 Results of PMR Therapy Implementation on Anger Control***

<b>Anger control ability</b>			
<b>Tn. R</b>		<b>Tn. A</b>	
<b>Before PMR therapy</b>	<b>After PMR therapy</b>	<b>Before PMR therapy</b>	<b>After PMR therapy</b>
Performed:	Performed:	D Performed:	Performed:
1. Not feeling offended or guilty when rejected	1. Able to speak clearly and properly	1. Not feeling offended or guilty when rejected	1. Not feeling offended or guilty when rejected
2. Able to interact well	2. Not feeling offended or guilty when rejected	2. Able to respect others	2. Speaking with a non-threatening tone
3. Able to respect others	3. Speaking with a non-threatening tone		3. Able to interact well
	4. Able to interact well		4. Able to respect others
	5. Able to respect others		5. 5. Able to understand and manage negative emotions and behaviors
	6. Able to understand and manage negative emotions and behaviors		

Not performed:	Not performed:	Not performed:	Not performed:
1. Able to understand and manage emotional and behavioral problems	1. Understanding the range of anger	1. Able to understand and manage emotional and behavioral problems	1. Understanding the range of anger
2. Understanding the range of anger		2. Able to interact well	1. 2. Able to speak clearly and properly
3. Able to speak clearly and properly		3. Understanding the range of anger	
4. Speaking with a non-threatening tone		4. Able to speak clearly and properly	
		5. Speaking with a non-threatening tone	

The table above indicates that both patients showed improved anger control, reduced facial tension, and enhanced ability to communicate effectively. In addition, positive changes were observed in physiological parameters, including a decrease in blood pressure from 125/85 mmHg to 110/70 mmHg and a reduction in pulse rate from 90 beats per minute to 76 beats per minute. The patients also demonstrated more adaptive behavioral changes, such as speaking in a calmer tone, refraining from swearing, and showing a decreased tendency to clench their fists or display aggressive expressions. Based on observations, anger control ability increased from three to six indicators in the first patient and from two to five indicators in the second patient. These results indicate that PMR is effective in helping patients recognize and regulate physiological reactions to stress and anger..

## DISCUSSION

This study aligns with previous research:

1. The first journal, "The Effect of Social Skills Training (SST) Therapy on Social Interaction Skills in Socially Isolated Patients at the Rejoso Community Health Center in Ngnjuk Regency." The fifth study was conducted by Endang Yuswatiningsih, Iva Milia Hani, and Rahmawati (2020). Patients with social isolation have serious problems with their ability to interact with others. Social isolation is a mental health nursing problem where the client experiences loneliness and is considered a negative and life-threatening condition. The purpose of this study was to analyze the effect of social skills training (SST) therapy on social interaction skills in patients with social isolation. The study design was a one-group pre-post-test design. The population in this study was all socially isolated patients at the Rejoso Community Health Center in Nganjuk Regency, with a sample size of 30 individuals using simple random sampling. Data collection was conducted using a questionnaire. Data management involved editing, coding, scoring, tabulating, and analysis. The Wilcoxon statistical test with an alpha of 0.05 was used.
2. The two Journal Harkoh et al. (2022) Social Skills Training May Influence Socialization Abilities in Patients Who Are Socially Isolated. This research employed

a pre-experimental framework. The sample consisted of two socially isolated individuals at Dr. Suharto Heerdjan Hospital. The sample consisted of 2, utilizing total sampling methods. An observation sheet was the tool utilized. Analysis of data was performed utilizing a Paired Sample Test. Results: According to the outcomes of the statistical tests, the P-value was 0.000, indicating  $P < 0.05$ . Conclusion: Social Skills Training: Session 1 had an impact on Socialization Skills in patients who were socially isolated before and after the sessions.

3. Eyvin et al. (2022) "The Impact of Social Skills Training on the Interaction Skills of Socially Isolated Clients." This research method utilized a design. A pre-experimental study with a single-group pre-test and post-test. The sample used a sampling technique. The total sample consisted of 30 respondents. The research results were obtained using the Wilcoxon signed-rank test. The significance value was 0.000 or less than 0.05 ( $0.00 < 0.05$ ). The Effect of Social Skills Training on the Interaction Skills of Socially Isolated Clients at Prof. Dr. V. L. Ratumbusang Hospital Manado.

Among the three journals the author has reviewed, one of them analyzed various therapy types that can aid patients facing social isolation to enhance social skills training. The analysis of these journals reveals that while each exhibits distinct changes, they resemble those of patients experiencing the same mental disorder. Consequently, employing social skills training and engaging in social group activity therapy influences the reduction of social isolation and can serve as an effective intervention. The study's findings show that two participants successfully applied therapeutic communication techniques and built a trusting rapport between the nurse and the patient. They could identify the nurse conversing with them and maintained strong eye contact.

## CONCLUSION

1. During the assessment of patient 1 (Mr. A) and patient 2 (Mr. K), the author reviewed the patients' identities (including name and age).
2. Based on the data analysis conducted by the author, patient 1 (Mr. A) was diagnosed with hallucinations, social isolation, and low self-esteem. Patient 2 (Mr. K) was diagnosed with hallucinations, social isolation, and low self-esteem.
3. The nursing interventions performed on both patients included the implementation of social isolation, referring to the Indonesian Nursing Intervention Standards (SIKI), which includes identifying patient communication skills and fostering trusting relationships. Social skills training was provided. Session 1 taught patients communication skills such as greeting and introducing themselves. Session 2 taught patients how to make friends. Session 3 taught patients how to participate in activities. Session 4 taught them how to cope with difficult situations and accept criticism. Session 5 provided an evaluation after implementing the social skills training. Collaborative administration of antipsychotic and anti-anxiety medications, if necessary, and actions based on evidence-based nursing practice, namely social skills training.
4. The nursing implementation carried out on both patients in this application includes the provision of non-pharmacological therapy, namely the application of Evidence Based Nursing Practice, namely social skills training.
5. Nursing evaluation on patients after the provision of interventions on Mr. A and Mr. K, the evaluation was assessed after the implementation of social skills training with indicators of action success, namely social engagement with the criteria for the results



of the criteria for the results of interaction interest 4 (quite increased), depressed/sad affect 5 (decreased), withdrawal behavior 5 (decreased), social verbalization 5 (increased) signs and symptoms of social isolation after being given social skills training therapy, there was a decrease.

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