


## Autogenic Relaxation Therapy's Impact on Patients' Acute Pain Levels in Gladiol Ward RSUD Sukoharjo

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Article Info	ABSTRACT
<p><b>Keywords:</b> Autogenic relaxation therapy, Acute pain, Abdominal pain.</p>	<p>Acute pain in abdominal pain patients is a common problem that can affect quality of life. At RSUD Sukoharjo's Gladiol Ward, acute pain among patients experiencing abdominal pain is a prevalent issue, representing the highest percentage of complaints. Autogenic relaxation therapy has been proven effective in reducing various types of pain, but its effect on sharp pain in patients suffering from abdominal issues still needs further investigation. The current study will look at how autogenic relaxation therapy affects acute pain intensity in patients suffering from abdominal discomfort. A quasi pre-post test design was implemented in this research. Within this framework, the researcher assigned one group as the intervention group and the other as the control group. The study participants consisted of five inpatients at the Gladiol Ward, RSUD Sukoharjo, who were diagnosed with abdominal pain. Autogenic relaxation therapy was administered twice daily for three consecutive days, with pain levels assessed before and after the intervention using a numerical pain scale. Data analysis was conducted using the Paired T-Test, as the data followed a normal distribution. The statistical results indicated a significant reduction in acute pain levels after autogenic relaxation therapy at RSUD Sukoharjo. The Paired T-Test produced an Asymp. Sig. ( 2-tailed ) value of 0.000. Since this value is less than 0,05. It confirms that the alternative hypothesis ( <math>H_a</math> ) is accepted. Therefore, autogenic relaxation therapy is proven to be effective in lowering acute pain levels in patients with abdominal pain. This study provides empirical evidence supporting the benefits of autogenic relaxation therapy as a non-pharmacologi approach to managing acute pain in patients with abdominal pain.</p>
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### INTRODUCTION

Abdominal pain, medically known as abdominal pain, is a very common complaint that can be experienced by anyone. This term encompasses various uncomfortable sensations felt in the abdomen, which is the area of the body located between the chest and pelvis. This pain can originate from the abdominal wall itself, or from the organs within it, such as the stomach, intestines, liver, pancreas, and kidneys (Pasba, 2023). The characteristics of abdominal pain vary widely, ranging from mild, intermittent pain to severe, persistent pain, depending on the underlying cause and severity of the condition. This complaint can be caused by various conditions, from mild digestive disorders to serious medical conditions. Acute abdominal pain,

in particular, can cause significant discomfort and disrupt the patient's life quality (Farida, 2019).

Among the most concerning manifestations of abdominal pain is acute abdomen. This condition is characterized by the sudden onset of intense abdominal pain, often accompanied by other symptoms such as nausea, vomiting, fever, and changes in bowel movement patterns (Sabo et al., 2021). Acute abdomen is a medical emergency that requires immediate treatment, as it can indicate serious problems within the abdominal cavity, such as appendicitis, perforated ulcers, or bowel obstruction (Maryana, 2021). Delayed treatment can be fatal, so it is important to seek immediate medical attention if you experience these symptoms.

Based on World Health Organization (WHO) data from 2019, abdominal pain is a significant global health problem, with millions of cases occurring each year. In Indonesia, the prevalence of abdominal pain is also quite high, reaching 40.8% of the population, with more than 270,000 cases recorded (Jusuf et al., 2022). This figure indicates that abdominal pain is a health problem that needs serious attention in Indonesia.

At the regional level, Central Java has a very high prevalence of abdominal pain, namely 76.9% of the total cases. Sukoharjo Regency, which is located in Central Java, even ranks fourth highest in terms of the number of abdominal pain cases, with more than 38,000 cases recorded (Prihashinta & Putriana, 2022). This high incidence may result from various factors, including unhealthy eating habits, insufficient physical activity, or unsanitary environmental conditions.

The management of acute abdominal pain often involves the use of analgesic medications. Nevertheless, the use of these medications may lead to side effects and is not always effective in optimally relieving pain. Therefore, non-pharmacological approaches are needed to complement conventional therapy in the management of acute abdominal pain (Fajriani et al., 2021).

One non-pharmacological approach that has been proven effective in relieving various types of pain is autogenic relaxation therapy. This therapy involves relaxation techniques aimed at reducing muscle tension and increasing mental relaxation. Through deep relaxation, it is expected that patients can experience a decrease in pain perception and an increase in pain tolerance (Devi & Maliya, 2019).

Several studies have demonstrated the effectiveness of autogenic relaxation therapy in reducing pain. For instance, research published in the journal *Complementary Therapies in Medicine* demonstrated that autogenic relaxation therapy is effective in alleviating chronic pain in patients with osteoarthritis (Kohlert et al., 2022). Additionally, another study published in the *Journal of Clinical Psychology in Medical Settings* found that autogenic relaxation therapy can reduce neck pain (Siddiqui et al., 2022).

Although autogenic relaxation therapy has been widely studied and proven effective in various pain conditions, research on its effect on acute abdominal pain is still limited. Therefore, this study seeks to evaluate the impact of autogenic relaxation therapy on acute pain levels in patients experiencing abdominal pain. The findings of this research are

anticipated to offer empirical evidence on the effectiveness of autogenic relaxation therapy as a non-pharmacological approach in managing acute abdominal pain.

This study is a continuation of previous research that has demonstrated the effectiveness of autogenic relaxation therapy in reducing acute pain. However, this study expands its scope by including a control group that received standard nursing care, thereby allowing for a direct comparison of the effectiveness of autogenic relaxation therapy. Additionally, this study utilizes a standardized and validated numerical pain scale with high reliability (Cronbach's alpha = 0.724), which was administered by trained research assistants following a standardized protocol, to ensure consistency in measurement.

Based on observations from July 29, 2024 – August 3, 2024, patients diagnosed with abdominal pain remain the most frequently encountered problem and have the highest percentage in the inpatient ward of RSUD Sukoharjo, especially in the Gladiol ward. Given this background, the author is interested in conducting research on the impact of autogenic relaxation therapy on acute pain intensity in patients with abdominal pain patients in the Gladiol ward of RSUD Sukoharjo.

## METHODS

This study employed a quasi pre-post test design with both an experimental and a control group. The study respondents were inpatients in the Gladiol ward of RSUD Sukoharjo diagnosed with abdominal pain, totaling 10 respondents (5 in the experimental group, 5 in the control group). The experimental group received autogenic relaxation therapy twice daily for three days. The control group received standard nursing care for pain management, which included routine administration of prescribed analgesic medications as needed. Pain levels for both groups were measured before and after the intervention using a numerical pain scale. The numerical pain scale used in this study is a standardized and validated instrument, with demonstrated high reliability (Cronbach's alpha = 0.724). The scale was administered by trained research assistants following a standardized protocol to ensure consistency in measurement. The data analysis in this study utilized a Paired T-Test, as the data followed a normal distribution.

## RESULTS AND DISCUSSION

This study included 10 patients, equally distributed into two groups: 5 patients in the control group and 5 patients in the intervention group. Data collection was conducted over two weeks, from August 5 to August 17, 2024. The statistical analysis of the data will present the results as follows: Univariate analysis will describe the characteristics of the respondents based on the mean, median, standard deviation, and the lowest and highest pain scores from both groups. In addition, univariate analysis will also show the distribution of respondents based on the pain scale in each group. Complete details regarding the characteristics of the patient's pain scale will be presented in a table. The mean pain scale values in patients with abdominal pain in the control and intervention group can be seen in table 1 below:

**Table 1.** Results of the pretest and posttest for the intervention group and the control group, along with descriptive statistics.

	Minimum	Maximum	Mean	Std. Deviation
Pretest Intervention	5	10	7.87	1.501
Posttest Intervention	0	3	1.13	1.269
Pretest Control	5	10	7.83	1.470
Posttest Control	1	5	3.37	1.333
Valid N (listwise)				

Table 1 illustrates that in the intervention group, which included 5 respondents, the average pain level before receiving autogenic relaxation therapy was 7.87. After undergoing the therapy, the average pain level dropped to 1.13, reflecting a significant reduction of 6.74 points. In contrast, the control group, also consisting of 5 respondents, had an average pretest pain level of 7.83, which decreased to 3.37 posttest, showing a reduction of 4.50 points. To determine the effectiveness of the autogenic relaxation technique in alleviating acute pain in patients with abdominal pain, a bivariate analysis was conducted. The statistical test applied was the paired t-test, which compared the differences in pretest and posttest pain scores between the intervention and control groups.

**Table 2.** Paired t-test Results (n=10).

Group		Mean	Value-p
Experimental	Pretest-posttest	-5.467	0,000
Control	Pretest-posttest	0.067	0,601

Table 2 indicates that in the intervention group, the mean pretest-posttest value is -5.467 with a p-value of 0.000, whereas in the control group, it is 0.067 with a p-value of 0.601. This demonstrates a significant difference in pretest and posttest knowledge levels between the two groups. The p-value for the intervention group was 0.000. ( $p < 0.05$ ) confirms that autogenic relaxation therapy is statistically proven to be more effective in alleviating acute pain in patients experiencing abdominal pain.

The findings of this study suggest that autogenic relaxation therapy is effective in alleviating abdominal pain. Statistical analysis revealed a significant difference between the two groups, with the experimental group obtaining a p-value of 0.000 ( $p < 0.05$ ), while the control group had a p-value of 0.067. This indicates that autogenic relaxation therapy is statistically proven to be more effective in reducing acute pain in patients with abdominal pain. These results align with the study conducted by Syamsiah & Muslihat (2015), which involved 30 respondents and utilized an independent t-test. The analysis yielded a p-value of 0.000, which is lower than  $\alpha$  (0.005), demonstrating a significant impact of relaxation techniques on acute pain in patients with abdominal pain. Based on these findings, this study recommends that health service units adopt autogenic relaxation technique procedures as an alternative approach to lowering pain levels in patients, particularly those experiencing abdominal pain.

Pain is a common and complex health issue affecting millions of people worldwide. Pain can be acute or chronic, and may be caused by various medical conditions, injuries, or surgical

procedures. Effective pain management is crucial to alleviate patient suffering, improve life quality, and facilitate recovery. Effective pain control necessitates a holistic strategy that encompasses accurate assessment, pharmacological and non-pharmacological interventions, and ongoing evaluation (Kristanto & Maliya, 2016). By implementing a comprehensive approach that includes accurate assessment, appropriate interventions, and continuous evaluation, healthcare professionals can help patients achieve significant pain reduction and improve their quality of life (Saraswati & Rosalina, 2023).

Pain management includes the administration of analgesic therapy and non-pharmacological therapy, which includes cognitive-behavioral interventions like relaxation techniques, music therapy, visualization, and biofeedback (Djamal et al., 2015). Cognitive behavioral interventions in controlling pain are designed to complement or support the effectiveness of analgesic therapy, creating a more comprehensive multimodal approach. Relaxation therapy, as an independent nursing intervention, has been proven effective in reducing pain intensity by providing individuals with self-control when pain occurs, and can be applied in both healthy and ill conditions.

Relaxation techniques for pain relief offer practical, economical, and self-manageable solutions for patients (Djunaid et al., 2023). In its implementation, researchers provide verbal guidance to patients, following a pre-designed relaxation procedure. Patients listen to the nurse's instructions, focus on the words, and practice the examples given. The nurse plays an active role in providing direct examples and training patients to independently apply these techniques, as a strategy to cope with pain that may arise at any time.

Autogenic relaxation is an effective method to relieve pain by shifting the focus of attention to a relaxed state, thereby reducing the patient's awareness of the perceived pain sensation (Aji et al., 2015). This technique brings individuals into a state similar to light hypnosis, where they can achieve mental and physical tranquility (Ekarini et al., 2018). Autogenic relaxation entails psychophysiological relaxation technique that originates from one-self, using words, short phrases, or thoughts aimed at calming the mind and reducing tension (Syamsuddin & Modjo, 2021). Based on these findings, this study recommends that health service units adopt autogenic relaxation techniques as an alternative approach to lowering pain levels in patients, particularly those experiencing abdominal pain.

## CONCLUSION

This research has proven that autogenic relaxation therapy is efficient in minimizing acute pain levels in patients with abdominal pain in the Gladiolus ward of RSUD Sukoharjo. The analysis of the data demonstrated a remarkable distinction between the two groups. The interventional group saw a considerably higher decrease in pain compared the control group. For the interventional group, 0.000 ( $p < 0.05$ ) was the p-value, whereas 0.067 was the significance level for the control group. These findings support the use of autogenic relaxation therapy as an effective non-pharmacological intervention in the managing acute pain in patients experiencing abdominal pain. Autogenic relaxation techniques offer a simple, economical, and self-manageable approach for patients, thereby providing greater control over their pain experience. To further explore the advantages of autogenic relaxation therapy,

subsequent research is advised to evaluate patient satisfaction levels, thereby offering a more thorough perspective from the patients themselves.

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