



## Application of Dzikir relaxation therapy to acute pain in abdominal pain patients in the emergency department

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### Abstract

Pain is a phenomenon that is often found in everyday life and a sign of tissue damage in the body. Many things can cause pain. Pain is caused due to the effects of a certain disease or as a result of injury. An illness or injury can cause pain, one of the most common pains being abdominal pain. Because pain management in the emergency department must be quick and precise, analgesics are often used to manage pain, including abdominal pain. The purpose of this study was to determine the effect of dzikir relaxation therapy on reducing pain scale in abdominal pain patients at PKU Aisyiyah Boyolali Hospital. This type of research is case study research. Sample number of 5 respondents using measuring instruments *Numeric Rating Scale* (NRS) and analysis techniques using sample t test. Based on the test results, the sample t test produced a p-value of 0.001 (p-value) < 0.05 so that Ho was rejected and Ha was accepted, which means that there is an influence in the provision of dzikir relaxation therapy on reducing the pain scale. Conclusion: there is an effect of dzikir relaxation therapy on acute pain in abdominal patients. This research is expected to increase knowledge and independence in treatment to reduce complaints with nonpharmacological therapy, namely dzikir relaxation therapy.

**Keywords:** Abdominal Pain; Dzikir Relaxation Therapy; Pain Scale

### 1. Introduction

According to Maslow's theory, pain is something that interferes with basic needs, namely physiological needs. Pain is divided into two groups, namely acute pain and chronic pain. Acute pain is pain that appears after an acute injury, illness or surgical intervention and appears quickly, with varying intensity (from mild to severe) and lasting a short time (less than six months). Chronic pain or long-term pain is pain that lasts a long time with varying intensity and usually lasts more than six months (Fathoni & Cindy, 2019).

According to the World Health Organization (WHO) worldwide, the incidence of abdominal pain reached 1.8 million to 2.1 million people in 2019. WHO states that the percentage of abdominal pain incidence in Indonesia is 40.8% and the prevalence reaches 274,396 cases of abdominal pain of 238,452,952 people in several regions of Indonesia (Jusuf et al., 2022). The prevalence of abdominal pain in Central Java with a total of 76.9% of cases. Meanwhile, Sukoharjo district has the fourth highest cases with 38,075 cases (Prihashinta & Putriana, 2022).

Abdominal pain is an umbrella term for any symptom of a disease that affects the area between the chest and pelvis (abdominal wall or organs in the abdomen) these symptoms vary depending on the severity, duration and location of pain (Al-Masawabe & Abu-Naser, 2021). A major symptom is abdominal pain that appears suddenly and nonspecific tenderness. Acute abdominal is a term often used for signs and symptoms of abdominal pain and tenderness that are not specific but these signs and symptoms often occur in people suffering with dangerous intra-abdominal conditions (Maryana, 2021). Disorders of the digestive organs and other organs can cause abdominal pain, such as gastroenteritis,

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ulcer, pelvic inflammatory disease (PID) or pelvic inflammatory disease, pancreatitis, appendicitis, constipation, hemorrhoids, ulcerative colic, gallstones, inflammation, kidney stones, urinary tract / kidney infections, ectopic pregnancy / miscarriage (Nurhidayati et al., 2023). If abdominal pain is not treated immediately, it causes uncomfortable problems for patients, complications such as prolonged abdominal pain such as upper gastrointestinal bleeding, hematemesis, gastrointestinal perforation, gastrointestinal obstruction, pancreatitis, and renal colic (Sepdiyanto, 2022).

The role of nurses is needed in providing nursing care in accordance with the needs of patients suffering from abdominal pain. One of the roles of nurses in providing nursing care to abdominal pain patients with the main diagnosis of acute pain is by pain management interventions, including conducting comprehensive pain assessments (location, characteristics, onset/duration, frequency, quality, intensity or severity of pain and precipitating factors), monitoring vital signs, giving comfortable positions, teaching non-pharmacological techniques (autogenic relaxation), collaborating with doctors if there are complaints. The most preferred intervention is to teach non-pharmacological techniques (autogenic relaxation). Autogenic relaxation is done to reduce pain, so it is expected to reduce pain (Murjuanto & Nusantoro, 2019). Using therapeutic communication to determine the patient's pain experience is by using distraction techniques, namely relaxation remembrance therapy (using deep breath), effleurage massage, imaginary guide, warm water compresses, deep progressive muscle relaxation techniques, finger grip relaxation (Akbar & Utami, 2021).

Results of research conducted by Fadli (2019), states the effect of dzikir therapy (Asmaul Husna) on the pain intensity scale of gastritis patients. Analysis of the data used, namely the Mann Whitney test obtained ( $p = 0.001$ ) Research related to dzikir therapy is very important to be carried out in the treatment of non-pharmacological therapies. In the study, researchers applied dzikir therapy with asmaul husna to patients suffering from gastritis in reducing the intensity of pain. According to research conducted by Andi Sastra, (2019) it was also found that there was an effect of dzikir therapy on pain intensity in gastritis patients at the Nene Mallomo Health Center, Sidrap Regency.

Physiologically, spiritual healing by dzikir or remembering Allah's asma will cause the brain to work. When the brain gets stimulation from outside, the brain will produce endorphins that will provide a sense of comfort. After the brain produces these substances, these substances will be involved and absorbed in the body which will then provide feedback in the form of pleasure or comfort (Sastria, 2019). This dzikir therapy can control someone when the pain arises and can be applied to someone who is healthy or sick (Risnah, 2019). This dzikir therapy can be done individually by patients if they feel pain without side effects (Risnah et al, 2019). Dzikir is a collection of sentences spoken in order to remember Allah SWT, to keep going and stay away from his prohibitions (Himawan et al, 2019). Dzikir therapy can make patients feel more relaxed, thereby suppressing the work of the sympathetic system and activating the parasympathetic system (Jannah & Riyadi, 2021). Therefore, researchers are interested in applying Dzikir Relaxation Therapy for Acute Pain in Abdominal Pain Patients at the emergency room of PKU Aisyiyah Boyolali Hospital. This study aims to determine the effect of dzikir relaxation therapy on acute pain in abdominal pain patients

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## 2. Method

The type of research used is case study research. This study focused on the use of dzikir relaxation therapy to lower pain scales in abdominal pain patients. Conducted from January 29, 2024 to February 3, 2024. This case study was conducted by researchers using five methods, namely assessment, diagnosis, intervention, implementation and evaluation. This assessment was carried out to determine patient complaints and the scale of pain felt by patients after implementation. Patients were asked the level of pain felt from a scale of 0-10. Prior to the administration of dzikir therapy, it was assessed using Scala's Numeric Rating pain scale. The intervention carried out is pain management, one of which is doing dzikir relaxation therapy. The patient listens to dzikir through a handphone in a voice that is not too loud. The implementation of the implementation is carried out for 10-15 minutes. This dzikir therapy is carried out 6-8 hours after being given analgesics so that this nonpharmacological therapy can be maximized and not affected by analgetic drugs. NRS is used to assess the patient's pain scale with a scale range of 0-10, where a scale of 0 feels no pain at all while a scale of 10 feels unbearable pain. After the implementation is carried out, it will assess the scale of pain using NRS, which aims to determine the comparison between before and after the administration of dzikir relaxation therapy.

### 3. Result

**Table 1** Categories of pain in patients, scale before administration of dzikir relaxation therapy and after administration of dzikir relaxation therapy

	Category: Nyeri	Frequency (n)	Percentage (%)
Scale before	Heavy	1	20%
	Keep	4	80%
	Light	0	0%
Scale after	Heavy	1	20%
	Keep	2	40%
	Light	2	40%
Total		5	100%

**Table 2** Differences in Average Pain Scales Before and After Non-pharmacological Relaxation with dzikir therapy

Variable	n	Mean	SD	Min-Max
For the Nyeri Rock Test	5	6.20	1.643	5-9
Pos Test Scale Nyeri	5	4.40	1.673	3-7

**Table 3** Effect of Nonpharmacological Relaxation with dzikir therapy on Pain Scale Reduction in Abdominal Pain Patients

Variable	n	p-value
Pre-post Skala Nyeri	5	0.001

### 4. Discussion

In table 1. The pain scale before implementation was 5,5,6,6 and 9. With pain scales in weight category 1, moderate category 4 and mild category 0. The pain scales that have been given implementation are 3, 3, 4, 5 and 7. With pain scales in weight category 1, medium category 2 and low category 2. In table 2, the average pain scale before implementation is 6.20 with a standard deviation of 1.643 The pain scale includes moderate and high pain scales. This is characterized by the observation of respondents experiencing an increase in the pain scale characterized by nausea, vomiting and grimacing facial expressions so that intervention is needed that can reduce the pain scale. The mean pain scale after implementation was 4.40 with a standard revision of 1.673. It was concluded that nonpharmacological relaxation with dzikir therapy can reduce the scale of pain. The results of the study obtained a minimum pain scale value of 3 and a maximum of 5. This happens because each respondent has a different level of focus when doing this intervention so that the decrease in the pain scale is also in accordance with the level of focus of the respondent.

In table 3, the results of the sample t test for the application of dzikir relaxation therapy obtained *p-values of 0.001 < 0.05* so that  $H_0$  was rejected and  $H_a$  was accepted, meaning that there was a significant influence in the application of dzikir relaxation therapy on reducing pain scales in abdominal pain patients. Nonpharmacological relaxation intervention with dzikir therapy was given before or after 6-8 hours of pharmacological therapy. This intervention is a nonpharmacological action as a companion action for nurses. The decrease in pain arises due to the ability of the nervous system to convert various mechanical, chemical, thermal and electrical stimuli into action potentials that will be transmitted to the central nervous system. Mechanical stimulus is the provision of a combination of deep breath relaxation and dzikir which in this case the action can reduce the respondent's pain scale.

This study was conducted by applying dzikir relaxation therapy to each patient with a duration of 10-15 minutes. Before the dzikir relaxation therapy, researchers measured the pain scale using NRS. After dzikir relaxation therapy, researchers re-measured the pain scale. Respondents were cooperative in performing dzikir relaxation therapy taught by researchers.

This research is in line with the results of the study Fadli (2019), which states the administration of dzikir therapy for 5-6 hours after the administration of analgesics or independent activities of nurses, from observation of pain response shows a change in pain response in the form of comfort and reduced pain. Relaxation and dzikir use the integration and connection between body and soul to improve health, in another sense the mind is trained to initiate parasympathetic nerves to lower vital signs and muscle tension thus triggering relaxation and healing. Respondents who before the intervention had complaints characterized by the observation of respondents experiencing pain. Respondents complained of abdominal pain, felt nausea and vomiting, facial expressions grimaced and respondents could still be communicated well.

This research is also in line with research Kusuma et al (2023), which states that there is an effect on the administration of a combination of breath relaxation and dzikir on the reduction of pain scales. dzikir therapy causes the release of endorphins from the gland *pituitary*, so it will change the state of mood or feelings. A calm psychological state will affect *system limbic* and an autonomous system that will cause relaxing, safe and fun. Endorphin is a pain neurotransmitter or chemical compound that functions to carry nerve cell stimulation that can inhibit pain.

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## 5. Conclusion

The results of the sample t test resulted in the influence of the provision of dzikir relaxation therapy on acute pain in patients with abdominal pain in the Emergency Installation. After nonpharmacological pain management nursing with dzikir relaxation therapy, it was found that the patient's pain scale showed a decrease in the pain scale, which was measured using the Numeric Rating Scale (NRS). So it is hoped that hospitals can make standard operational procedures for nonpharmacological pain management, one of which is with dzikir relaxation therapy.

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## Compliance with ethical standards

### *Disclosure of conflict of interest*

No conflict of interest to be disclosed.

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