

EFFECTIVENESS OF USE OF BENSON RELAXATION THERAPY, DZIKIR AND MUSIC DANGDUT ON PAIN SCALE LEVELS IN POST-OPERATIVE PATIENTS APPENDICTOMY AT BHAYANGKARA BRIMOB HOSPITAL

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Abstract

Background: WHO in 2021 stated that the incidence of appendicitis in the world reached 7% of the total world population. Asia 2.6%, United States 7% of the total population. In Southeast Asia, Indonesia ranks first with a prevalence of 0.05%, followed by the Philippines at 0.022% and Vietnam at 0.02%. One of the medical treatments for appendicitis patients is surgery. The problem that arises after surgery is pain. Post-surgical pain management to reduce post-surgical pain is carried out using pharmacological and non-pharmacological approaches. Non-pharmacological management is by giving hot and cold compresses, massage, listening distraction, breathing relaxation techniques in dhikr and music therapy techniques. **Objective:** To determine the effectiveness of using Benson relaxation therapy, dhikr, and dangdut music on pain scale levels in post-appendectomy patients. **Methods:** Quasi experimental with a three group pretest-posttest design. The sample in this study was all post-appendectomy patients at the hospital. Bhayangkara Brimob in November 2023 as many as 30 people. The sampling technique uses total sampling. **Results:** The majority of respondents before being given the intervention experienced moderate pain and after the intervention the majority of respondents experienced mild pain. Benson relaxation therapy was more effective in reducing the pain scale in pre-appendectomy patients compared to dhikr therapy and dangdut music ($p=0.047$). **Conclusions and Suggestions:** Benson relaxation therapy is more effective in reducing the pain scale in pre-appendectomy patients compared to dhikr therapy and dangdut music. It is hoped that Benson relaxation therapy can be used as a non-pharmacological therapy option to reduce the pain scale in post-operative patients.

Keywords: Benson Relaxation, Dhikr, Dangdut Music, Post-Operative Pain

Introduction

Appendicitis is inflammation that occurs in the vermiform appendix due to infection of the appendix or worm tuft. Appendectomy is an operation to remove the appendix. The risk or side effect of an appendectomy is pain due to the incision which is caused by tearing of the tissue in the abdominal wall (Wati & Ernawati, 2020)

According to the World Health Organization (WHO), in 2021, the incidence of appendicitis in the world in 2020 reached 7% of the total world population. The World Health Organization (WHO) in Asia, the incidence of appendicitis in 2020 was 2.6% of the total population. In the United States, it is estimated that 7% of the population suffers from appendicitis with a prevalence of 1.1 cases per 1,000 people per year. The incidence of acute appendicitis in developing countries is lower than in developed countries. In Southeast Asia, Indonesia ranks first with the highest incidence of acute

appendicitis with a prevalence of 0.05%, followed by the Philippines at 0.022% and Vietnam at 0.02% (WHO, 2021).

The results of the Household Health Survey (SKRT) in Indonesia show that acute appendicitis is one of the causes of acute abdomen and several indications for emergency abdominal surgery. The incidence of appendicitis in Indonesia ranks highest among other cases of abdominal emergencies. The West Java Health Service stated that in 2020, the number of Appendicitis cases in West Java was 5,980 sufferers and 177 people died (Wainsani & Khoiriyah, 2020).

One of the medical treatments for appendicitis patients is appendectomy. Appendectomy is a surgical procedure to remove the appendix which is performed to reduce the risk of perforation. Appendectomy is treatment through a surgical procedure only for appendicitis or removing or removing an infected appendix (Fransisca, 2019)

The problem that arises after surgery is pain. Post-surgical pain is caused by the surgical wound, but it can also have other causes. The process of pain complaints arising from nociceptive stimuli caused by noxa, after which the sufferer becomes aware of the presence of noxa, only then experiences the sensation of pain and finally a reaction to pain arises in the form of verbal and nonverbal attitudes and behavior in conveying what they feel (Redho et al, 2019)

The impact of acute appendicitis pain if not treated or resolved will cause symptoms such as not being able to sleep, weakening the immune system, feeling depressed, feeling anxious, not being able to work as usual, always wanting to rest, feeling afraid, tired, irritable which can lead to depression. . The pain of appendicitis will usually feel intense, which indicates that the adjacent peritoneum is inflamed. If the acute pain is allowed to continue it will be fatal, the inflammation will get worse and become infected, the appendix can rupture and can result in intestinal perforation (Saputra, H, et al. 2020).

Post-surgical pain management to reduce or eliminate post-surgical pain is carried out using pharmacological and non-pharmacological approaches, one of the pharmacological treatments is Astaminopen Nonsteroidal Anti-Inflammatory Medications (NSAIDs), in general the pharmacological strategy in providing therapy follows the WHO pain relief ladder (analgesic level), Examples of drugs include ketorolac, ibuprofen, aspirin, etc., while non-pharmacological management is by administering hot and cold compresses, massage, listening distraction, breath relaxation techniques in dhikr and music therapy techniques.

Benson relaxation is relaxation using breathing techniques that are commonly used in hospitals for patients who are experiencing pain or experiencing anxiety. And, in Benson's relaxation there is the addition of an element of belief in the form of words which represent the anxiety that the patient is experiencing. The advantage of practicing relaxation techniques compared to other techniques is that they are easier to do and there are no side effects (Septiana, 2021).

Dhikr therapy is a type of regular rhythm therapy accompanied by an attitude of surrender to the object of transcendence, namely Allah. The phrases used can be the names of Allah, or words that have a calming meaning so as to reduce pain. Dhikr is a series of sentences spoken to remember Allah. Every human being as a servant of Allah who has good sense should always remember Allah whether happy or sad, healthy or sick. Dhikrullah should be done with a heart full of sincerity so that it can show that one has received guidance from Allah SWT. The effect is, when someone performs dhikr intensely and solemnly while understanding its meaning, the blood vessels in the brain will increase the flow of CO₂ coming out of breathing. CO₂ levels in the brain will fall regularly, the body will immediately show the ability to relax and feel comfortable reflexes (Saleh, 2018).

Apart from Benson relaxation therapy and dhikr, music therapy is also an action for dealing with pain. Individuals who experience pain will feel relaxed when listening to music. Music provides distraction and disassociation of endogenous opiates in several foci in the brain, including the hypothalamus and limbic system (Wati et al., 2020).

Preliminary studies obtained at Bhayangkara Brimob Hospital showed data on appendicitis operations in June for 26 patients, in August for 24 patients, in September for 31 patients and in October for 33 patients. Apart from that, appendectomy is included in the top 5 most common surgical cases. Therefore, special attention is needed both pre- and post-operatively, especially in terms of minimizing the pain scale

From interviews conducted with inpatient nurses at Bhayangkara Brimob Hospital, it was found that the usual efforts made by nurses in dealing with post-appendectomy pain were by carrying out therapeutic communication, teaching deep breathing relaxation techniques and collaborating with doctors in administering analgesic drugs. Based on the results of preliminary studies that have been carried out, researchers are interested in conducting research on post-operative appendicitis patients, with the title "Effectiveness of Using Benson Relaxation Therapy, Dhikr, and Dangdut Music on Pain Scale Levels in Post-Appendectomy Patients at Bhayangkara Brimob Hospital in 2023".

Research Methods

Quasi-experimental with a three-group pretest-posttest design. The sample in this study was all post-appendectomy patients at the hospital. Bhayangkara Brimob in November 2023 as many as 30 people. The sampling technique uses total sampling. The analytical method used is univariate and bivariate analysis with the Anova test

Research Result

Table 1. Frequency Distribution of Respondents' Pain Scales Before and After Being Given Benson Relaxation Therapy, Dhikr and Dangdut Music

No	Variabel	Pre test		Post test	
		F	%	F	%
1.	Benson Relaxation				
	No pain	0	0.0	1	10.0
	Mild pain	1	10.0	8	80.0
	Moderate pain	5	50.0	1	10.0
	Severe pain	4	40.0	0	0.0
	Total	10	100,0	10	100,0
2.	Dzikir				
	No pain	0	0.0	0	0.0
	Mild pain	0	0.0	7	70.0
	Moderate pain	8	80.0	3	30.0
	Severe pain	2	20.0	0	0.0
	Total	10	100,0	10	100,0
3.	Dangdut music				
	No pain	0	0.0	0	0.0
	Mild pain	1	10.0	5	50.0
	Moderate pain	6	60.0	5	50.0
	Severe pain	3	30.0	0	0.0
	Total	10	100,0	10	100,0

Based on the table above, it can be seen that of the 10 respondents in the Benson relaxation group before being given the intervention, the majority experienced moderate pain, 5 people (50.0%), and after being given the intervention, the majority experienced mild pain, 8 people (80.0%). . Of the 10 respondents in the dhikr group, before being given the intervention, the majority experienced moderate pain, 8 people (80.0%), and after being given the intervention, the majority experienced mild

pain, 7 people (70.0%). Of the 10 respondents in the dangdut music group, before being given the intervention, the majority experienced moderate pain, 6 people (60.0%), and after being given the intervention, the same number of respondents who experienced mild and moderate pain, namely 5 people (50.0%).

Table 2. Differences in the Effectiveness of Using Benson Relaxation Therapy, Dhikr, and Dangdut Music on Pain Scale Levels in Post-Appendectomy Patients

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	10.400	2	5.200	3.351	.050
Within Groups	41.900	27	1.552		
Total	52.300	29			

Based on the table above, the Anova test above can be seen that the p-value is 0.050 or the same as alpha 5%. Thus, the test decision is that H0 is rejected, that is, there is at least one treatment group that has a different average value of pain level compared to other treatment groups or it can be said that there is a significant difference in the average value of pain level between groups using the Benson relaxation, dzikir method. and dangdut music.

Tabel 3. Multiple Comparisons
Multiple Comparisons

Tukey HSD

(I) Group	(J) Group	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Benson Relaxation	Dzikir	-1.000	.557	.190	-2.38	.38
	Dangdut music	-1.400*	.557	.047	-2.78	-.02
Dzikir	Benson Relaxation	1.000	.557	.190	-.38	2.38
	Dangdut music	-.400	.557	.755	-1.78	.98
Dangdut music	Benson Relaxation	1.400*	.557	.047	.02	2.78
	Dzikir	.400	.557	.755	-.98	1.78

*. The mean difference is significant at the 0.05 level.

In the table above, the results of Multiple Comparisons for reducing pain by providing Benson relaxation obtained a Sig value. (0.047) < 0.05, then there is a significant average difference between the provision of Benson relaxation, dhikr and dangdut music. The same way to look at the average differences of other variables, so that there is a significant average difference in the use of Benson relaxation therapy, dhikr and dangdut music. From the results above, it can be concluded that of the three treatments, giving Benson relaxation is more effective in reducing pain levels compared to giving dhikr and dangdut music, because the sig value of giving Benson relaxation is smaller compared to giving dzikir and dangdu music.

Discussion

Frequency Distribution of Respondents' Pain Scale Before and After Being Given Benson Relaxation Therapy, Dhikr and Dangdut Music

From the research results, it can be seen that of the 10 respondents in the Benson relaxation group before being given the intervention, the majority experienced moderate pain, 5 people (50.0%), and after being given the intervention, the majority experienced mild pain, 8 people (80.0%). Of the 10 respondents in the dhikr group, before being given the intervention, the majority experienced moderate pain, 8 people (80.0%), and after being given the intervention, the majority experienced mild pain, 7 people (70.0%). Of the 10 respondents in the dangdut music group, before being given the intervention, the majority experienced moderate pain, 6 people (60.0%), and after being given the intervention, the same number of respondents who experienced mild and moderate pain, namely 5 people (50.0%).

Pain is a disease characterized by an unpleasant sensation that can only be described accurately by the person experiencing it, because each person's experience of pain and discomfort is different and is a common phenomenon for patients after surgery and is an unpleasant sensory and emotional experience (Tamang, 2019).

If pain after surgery is not treated properly, it will become chronic pain which is a big problem and difficult to treat. Apart from that, pain after surgery that is not treated properly can also result in complications. Apart from that, proper pain management can help shorten the length of stay, reduce hospital costs and increase patient satisfaction. Relaxation is a procedure to help individuals deal with stressful situations. The relaxation response is an action to relieve mental and physical tension and stress so that it can increase tolerance to pain (Hastomo, 2018).

According to the researchers' assumptions, the results of research conducted at Bhayangkara Brimob Hospital showed that in Benson relaxation therapy before being given the intervention, 50% of respondents experienced moderate pain and after being given the intervention, respondents experienced a reduction in pain to mild by 80%. In dhikr therapy, before the therapy was given, 80% experienced moderate pain, after the intervention the pain decreased, namely 70% experienced mild pain. In dangdut music therapy, before the intervention was given, 60% of the respondents experienced moderate pain, and after the intervention, 50% of the respondents experienced mild and moderate pain. Post-appendectomy patients who were given non-pharmacological therapy, namely Benson relaxation, dhikr and dangdut music, showed changes in different levels of pain scale. However, from the results of the three therapies or three treatments, the researchers concluded that the three therapies could reduce the pain scale, although the reduction in the pain scale was not much.

The results of this study are in line with the research results of Astri Septiana (2021) who said that after administering Benson relaxation 2 times a day for 3 days, the pain intensity of post-appendectomy patients who were subjects experienced a decrease as expected, where before application the patient's pain score was 6 and after application decreased to 2. The results of this study are also in line with the results of Nurul Janah's research (2021), which said that the average pain scale before treatment was 4.95 and the average pain scale after being given dhikr therapy was 3.90. The results of this research are also supported by the research results of Andreas Setyono (2021), who said that the average pain scale for each respondent both before and after being given music therapy resulted in a difference, with a decrease in the pain scale described by each respondent being between 1.2 to 1.8. There is a difference in pain response before and after being given music therapy to post-operative patients at Dr. Lung Hospital. Ario Wirawan Salatiga in 2021.

The effectiveness of using Benson relaxation therapy, dhikr, and dangdut music on pain scale levels in post-appendectomy patients

From the research results it can be seen that the p-value is 0.050 or the same as alpha 5%. Thus, the test decision is that H_0 is rejected, that is, there is at least one treatment group that has a different average value of pain level compared to other treatment groups or it can be said that there is a significant difference in the average value of pain level between groups using the Benson relaxation, dzikir method. and dangdut music.

The results of Multiple Comparisons to reduce pain by providing Benson relaxation obtained a Sig value. $(0.047) < 0.05$, then there is a significant average difference between the provision of Benson relaxation, dhikr and dangdut music. The same way to look at the average differences of other variables, so that there is a significant average difference in the use of Benson relaxation therapy, dhikr and dangdut music. From the results above, it can be concluded that of the three treatments, giving Benson relaxation is more effective in reducing pain levels compared to giving dhikr and dangdut music, because the sig value of giving Benson relaxation is smaller than giving dhikr and dangdut music.

Benson therapy is a breathing relaxation technique involving belief which results in a decrease in oxygen consumption by the body and the body's muscles relax, giving rise to a feeling of calm and comfort. If there is sufficient O_2 in the brain, humans are in a balanced condition. This condition will cause a general relaxed state in humans. The feeling of relaxation will be transmitted to the hypothalamus to produce corticotropine relaxing factor (CRF). CRF will stimulate the pituitary gland to increase the production of proopiomelanocortin (POMC) so that enkephalin production by the adrenal medulla increases. The pituitary gland also produces β endorphine as a neurotransmitter (Yusliana, 2017).

According to the researchers' assumptions, the results of research conducted on appendectomy patients to reduce the scale of pain by being given Benson relaxation therapy showed that there was a decrease in the scale of pain, there was even 1 respondent who, after being given Benson relaxation, felt the pain disappear. The difference in the average pain scale between before and after being given Benson relaxation was 4, from the results of the Benson relaxation therapy ANOVA test with a p value. value 0.047, which shows that Benson relaxation therapy can effectively reduce the pain scale in post-appendectomy patients.

The results of this research are in line with the results of research by Manurung (2021) which explains that the Benson relaxation technique can reduce the pain scale in post-operative appendicitis patients, namely p value 0.000. Apart from that, the Benson relaxation technique can be used anywhere without interfering with other activities.

Dhikr that is recited well and correctly according to the rules of the science of recitation will have a positive effect on body health. From the study of tajwid science, where the sentences Laaha illallah and astaghfirullah contain the letter jahr which is repeated seven times, namely the letter lam (ل), and in astaghfirullah there are the letters ghayn (غ), ra (ر), and two letters lam (ل), subhanallah (two jahr letters), Allahu Akbar (three jahr letters), and Alhamdulillah (two jahr letters). As a result, more air comes out of the lungs through the mouth. Thus, when reciting these sentences, more carbon dioxide will be released when the air is exhaled out of the mouth. The effect is, when someone performs dhikr intensely and solemnly while understanding its meaning, the blood vessels in the brain will increase the flow of CO_2 coming out of breathing. CO_2 levels in the brain will fall regularly, the body will immediately show the ability to relax and feel comfortable reflexes (Saleh, 2018).

The reduction in pain arises due to the ability of the nervous system to convert various mechanical, chemical, thermal and electrical stimuli into action potentials which are transmitted to the central nervous system. The mechanical stimulus, namely providing dhikr therapy, is because this is a

form of nursing care, in which the nurse teaches the client how to carry out this dhikr therapy technique well and can reduce the intensity of pain (Himawan et al., 2019)

Dhikr will make a person feel calm, which then suppresses the work of the sympathetic nervous system and activates the work of the parasympathetic nervous system. Allah says in Q.S. Ar-Ra'du verse 29 which reads: "Those who believe and their hearts become peaceful by remembering Allah SWT (dhikrullah). Remember, only by remembering Allah can the heart become peaceful" (Himawan et al., 2019).

According to the researchers' assumptions, from the results of the research that has been carried out, it was found that therapy using dhikr makes the heart calm and comfortable so that it can reduce the pain scale in patients with appendectomy surgery. From the difference in the average pain value before and after dhikr, a value of 2.80 was obtained, which shows that dhikr therapy can reduce the pain scale in post-appendectomy patients, although not as much as the average difference value with Benson relaxation treatment.

In the dhikr relaxation research, there was a significant difference, namely $p \text{ value } 0.005 < 0.005$. Supported by research conducted by Jannah (2021), it had an influence on the pain scale of post-operative patients because it was found that there was a difference or difference in the effect of dhikr therapy on the pain scale, the pain scale before and after dhikr therapy treatment, namely a p value of 0.000. It is hoped that nurses can apply dhikr therapy to patients who experience pain as an independent action for nurses in controlling pain and reducing pain in post-operative patients.

Music therapy is one of the measures to treat pain. Individuals who experience pain will feel relaxed when listening to music. Music provides distraction and disassociation of endogenous opiates in several foci in the brain, including the hypothalamus and limbic system (Wati et al., 2020).

According to the researchers' assumptions, from the results of the research that has been carried out, the average difference in the pain scale between before and after the intervention was given was 2.30, which means that although there was a decrease in the pain scale, it was only slight. Reducing the pain scale response through non-pharmacological measures such as music therapy as an independent nursing action will help the wound healing process and restore the patient's general condition. This is the basis that patients can be given immediate post-operative rehabilitation. Pain management that can be done independently will help patients with hospital costs, reduce the risk of surgical site infections, while increasing patient trust and satisfaction with hospital services.

Experimental research using dangdut music is new research and no one has ever researched it. But there are other studies using classical music. In music therapy research conducted by Mutmainnah (2019) with a p value of 0.001, it can be concluded that there is an effect of music therapy on reducing pain in post-operative patients. Supported by research conducted by Setyono (2021), the results showed that classical music therapy can have an effect on reducing pain levels, meaning reducing the response to the pain scale through non-pharmacological measures such as music therapy as an independent nursing action will help the wound healing process and the recovery of the patient's general condition. This is the basis that patients can be given immediate post-operative rehabilitation.

Of the three therapies, namely Benson relaxation, dhikr and dangdut music, the results of the ANOVA test showed that only Benson relaxation therapy had a p value of $0.047 < 0.05$. Thus, it can be concluded that of the three therapies, only Benson relaxation is the most effective in reducing the pain scale in post-appendectomy patients.

Conclusion

The majority of respondents before being given the intervention experienced moderate pain and after the intervention the majority of respondents experienced mild pain. Benson relaxation therapy was more effective in reducing the pain scale in pre-appendectomy patients compared to dhikr therapy and dangdut music ($p=0.047$).

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