

The Application of Murrotal Therapy QS. Ar-Rahman to Reduce Pain in Diabetic Ulcer Patients at Lumajang Islamic Hospital

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ABSTRACT

Introduction: Pain in diabetic ulcers occurs as a result of peripheral neuropathy, infection, and inflammatory processes that exacerbate the condition of the wound. Non-pharmacological therapies such as the recitation of the Quranic surah Ar-Rahman are believed to provide a relaxing effect and reduce pain perception. This study aims to determine the effect of reciting Surah Ar-Rahman on pain reduction in patients with diabetic ulcers admitted to Lumajang Islamic Hospital.

Method: This study used a pre-experimental design with a pre-test and post-test one-group design. The study sample consisted of 31 respondents selected using accidental sampling. Pain was measured using the Numeric Rating Scale (NRS), and data analysis was performed using the Wilcoxon test.

Result: The results showed that before the intervention, the majority of respondents experienced moderate pain (23 respondents, 74.2%), and after the intervention, the majority experienced mild pain (26 respondents, 83.9%). The Wilcoxon test yielded a Z-value of -4.472 with a p-value of 0.000 ($p < 0.05$), indicating a statistically significant reduction in pain following the QS. Ar-Rahman murottal therapy.

Conclusion: Listening to the Murottal Surah Ar-Rahman can stimulate the parasympathetic response, which helps lower blood pressure, heart rate, and stress levels. In the context of pain, this relaxing effect can reduce muscle tension and increase pain tolerance. Murottal therapy has been shown to reduce pain intensity in patients with diabetic ulcers, although a small proportion of patients still experience moderate pain

Keywords: Diabetic Ulcers; Pain; Murottal Therapy; Surah Ar-Rahman

Introduction

Diabetic ulcers are one of the chronic complications frequently experienced by patients with diabetes mellitus. This complication can cause significant pain, reduce

patients' quality of life, and increase the risk of amputation (Rahmawati, 2021). Pain management for diabetic ulcers requires effective interventions to alleviate patients' suffering, especially given the high incidence rates in various countries, including Indonesia (Sari et al., 2020). Therefore, finding methods that are not only effective but also affordable and comfortable for patients is a priority in modern nursing practice (Wahyuni, 2023).

Diabetic foot ulcers (DFUs) affect 10–15% of people with diabetes mellitus (DM) in Asia, with a lifetime risk reaching 19–34% (Zhang et al., 2020). Major contributing factors include peripheral neuropathy (60–70% of cases), vascular disorders, and resistant bacterial infections (IDF Atlas, 2023). Countries with a high burden include India, China, and Indonesia, where 25–50% of DFU patients undergo amputation (Boulton et al., 2020). The national prevalence of DM (10.6%) contributes to 15–25% of diabetic ulcer cases, with amputation occurring in 14.8% of patients (PERKENI, 2021). A study at the National General Hospital (2022) showed that 53.3% of DFU patients had polymicrobial infections, which impede healing. The main obstacles include delays in referrals (an average of 4 weeks) and limited facilities for diabetic foot care (Widyastuti et al., 2023). Data from the East Java Health Office (2023) recorded 2.3 million cases of diabetes, with diabetic ulcers as a complication in 18% of inpatients. A study at Dr. Soetomo General Hospital (2024) found that 62% of DFU patients had HbA1c levels >9%, indicating poor glycemic control. The “Community Health Center-Based Diabetic Foot Care” program has begun pilot testing in Surabaya for early detection (East Java Health Office, 2024). A limited study at the Lumajang Community Health Center (2023) reported that 12% of DM patients had ulcers, with 75% of cases related to the use of inappropriate footwear. Local factors such as limited access to podiatric care and low dietary compliance exacerbated the condition (Lumajang Prolanis Report, 2024).

In 2025, Lumajang Islamic Hospital recorded an increase in the number of diabetic ulcer patients over three consecutive months. In February, there were 31 ulcer patients, followed by 30 diabetes mellitus (DM) patients with ulcers in March. This number then rose again to 35 cases in April. These data indicate an upward trend that warrants attention, particularly regarding the management and prevention of diabetes

complications in the Lumajang region. This rise in diabetic ulcer cases may be influenced by several factors, such as a lack of awareness regarding foot care among DM patients, suboptimal blood sugar control, or delays in early detection. Lumajang Islamic Hospital can use this data to improve educational programs, routine screenings for patients with diabetes, and specialized diabetic foot care to prevent further complications, such as severe infections or even amputation (Lumajang Islamic Hospital, 2025).

Delays in treatment or wound care are often caused by patients' lack of knowledge regarding proper diabetic ulcer management (Rahmatullah, 2023). Additionally, psychological factors such as anxiety and stress can exacerbate pain perception. Patients with high stress levels tend to experience more severe pain, which can impact their overall quality of life (Widiyanti, 2022).

Ulcer pain in patients with Diabetes Mellitus (DM) is a serious issue that frequently disrupts patients' quality of life. Ulcers, or open wounds, particularly on the feet, can cause severe pain due to inflammation, infection, or damage to surrounding tissues. Although some DM patients experience peripheral neuropathy that reduces pain sensation, many still experience significant discomfort, especially if the ulcer has progressed to an infected stage or involves deeper structures such as muscles or bones (Widiyanti, 2022). This pain is often exacerbated by impaired blood circulation, which reduces the supply of oxygen and nutrients to the affected area, thereby slowing healing and worsening the condition (Putri, 2020). In addition, infection in an ulcer can trigger an inflammatory response that increases pain. Managing ulcer pain in patients with diabetes requires a comprehensive approach, including proper wound care, administration of pain relievers, and strict blood sugar control to prevent further complications. If not properly managed, ulcer pain can become chronic and have a serious impact on the patient's mobility and psychological well-being (Hidayah et al., 2021).

Murotal therapy is one non-pharmacological approach identified as having significant potential for pain reduction. Research indicates that listening to murotal can provide a relaxing effect through mechanisms that reduce stress and anxiety, which often accompany chronic pain (Hidayat, 2022).

Murotal therapy offers an innovative solution for pain management in diabetic ulcers. Through the stimulation of relaxation and spirituality, this therapy can lower cortisol levels a hormone associated with stress thereby helping to reduce pain intensity (Fadilah et al., 2023). Additionally, murotal therapy has been shown to improve patients' sleep quality, a critical factor in the wound healing process (Munawarah, 2022). The implementation of murotal therapy can also be easily carried out in various settings, both in hospitals and in patients' homes. Several studies have shown that Quranic therapy has a positive effect in reducing various types of pain. For example, a study by Fauziah et al. (2022) found that listening to the recitation of Quranic verses can reduce pain levels in postoperative patients through a relaxation mechanism that enhances psychological calmness. A similar study by Hasanah and Rahmawati (2022) also revealed that murottal therapy using Surah Ar-Rahman from the Qur'an is effective in reducing pain in elderly patients with chronic pain, with significant results in reducing pain intensity following the intervention. This mechanism is believed to be related to the activation of endorphins and a reduction in stress hormone levels, such as cortisol. These findings suggest that Qur'anic therapy can serve as a beneficial non-pharmacological approach in pain management.

In the context of diabetic ulcers, murottal therapy can serve as an easily implementable alternative treatment without the risk of side effects. This approach is also relevant to the cultural and spiritual background of the majority of the Indonesian population, making it more readily accepted by patients (Nurhasanah, 2020). Based on the above background, the researcher is interested in investigating the effect of murotal therapy on pain reduction in patients with diabetic ulcers admitted to Lumajang Islamic Hospital.

Method

This study employed a pre-experimental design using a one-group pre-test and post-test design. The population used as the study subjects consisted of all patients with diabetes mellitus who had diabetic ulcers at Lumajang Islamic Hospital. The sample comprised 31 patients with diabetes mellitus who had diabetic ulcers at Lumajang Islamic Hospital. The sampling technique used in this study was non-probability

sampling with accidental sampling. The study was conducted in the inpatient ward of Lumajang Islamic Hospital. The study was conducted from May 16, 2025, to June 30, 2025.

Results

The study results provided data on the characteristics of the respondents. The general data presented consists of: respondents' age, gender, education level, body part experiencing pain, and cause of pain. Meanwhile, the specific data in this study includes the identification of pain reduction in diabetic ulcer patients before receiving the recitation therapy of Surah Ar-Rahman during their hospitalization at Lumajang Islamic Hospital, and the identification of pain reduction in diabetic ulcer patients after receiving the recitation therapy of Surah Ar-Rahman at Lumajang Islamic Hospital; a cross-tabulation of pain reduction in diabetic ulcer patients before and after receiving Murotal QS. Ar-Rahman therapy at Lumajang Islamic Hospital; and an analysis of the effect of Murotal QS. Ar-Rahman therapy on pain reduction in diabetic ulcer patients at Lumajang Islamic Hospital.

1. General data

The general data presented includes: age, gender, education level, the body area experiencing pain, and the cause of pain among respondents admitted to Lumajang Islamic Hospital.

Table 1.1 Age distribution of patients at the Islamic Hospital of Lumajang

Age	Frequency	Percentage
25 – 30	3	9,7 %
31 – 36	4	12,9 %
37 – 42	6	19,4 %
43 – 48	9	29,0 %
49 – 54	6	19,4 %
55 – 60	3	9,7 %
Total	31	100 %

Source: 2025 Frequency Data

Table 1.1 shows that the majority of respondents hospitalized at Lumajang Islamic Hospital were aged 43–48 years, totaling 9 respondents (29%).

Table 1.2 Gender Distribution of Patients at the Islamic Hospital of Lumajang

Gender	Frequency	Percentage
Male	11	35,5
Female	20	64,5
Total	31	100,0

Source: 2025 Frequency Data

The results in Table 1.2 show that the majority of inpatients at Lumajang Islamic Hospital were female, totaling 20 respondents (64.5%).

Table 1.3 The Frequency of Education Among Patients at The Islamic Hospital of Lumajang

Education	Frequency	Percentage
Elementary School	3	9,7
Junior High school	7	22,6
Senior high school	19	61,3
Diploma	1	3,2
Bachelor's Degree	1	3,2
Total	31	100,0

Source: 2025 Frequency Data

Table 1.3 shows that the majority of inpatients at Lumajang Islamic Hospital had a senior high school education, totaling 19 respondents (61.3%).

Table 1.4 Frequency of painful parts of the body among inpatients at Lumajang Islamic Hospital

The Painful Part of The Body	Frequency	Percentage
Plantar Pedis	15	48,4
Dorsum Pedis	8	25,8
Leg	8	25,8
Total	31	100,0

Source: 2025 Frequency Data

Table 1.4 shows that the majority of respondents hospitalized at Lumajang Islamic Hospital experienced pain in the soles of their feet, with 15 respondents (48.4%) reporting this symptom.

Table 1.5 The Frequency of Pain Causes Among Inpatients at Lumajang Islamic Hospital

Causes Of Pain	Frequency	Percentage
Walk	26	83,9
Quiet	5	16,1
Total	31	100,0

Source: 2025 Frequency Data

Table 5.5 shows that for the majority of inpatients at Lumajang Islamic Hospital, the activity that caused pain was walking, with 26 respondents (83.9%).

2. Specific Data

The specific data in this study include the identification of pain reduction in patients with diabetic ulcers before receiving recitation therapy of Surah Ar-Rahman during their hospitalization at Lumajang Islamic Hospital, and the identification of pain reduction in patients with diabetic ulcers after receiving recitation therapy of Surah Ar-Rahman therapy at Lumajang Islamic Hospital, a cross-tabulation of pain reduction in diabetic ulcer patients before and after receiving QS. Ar-Rahman murotal therapy at Lumajang Islamic Hospital, and an analysis of the effect of QS. Ar-Rahman murotal therapy on pain reduction in diabetic ulcer patients at Lumajang Islamic Hospital.

Table 2.1 Pain levels prior to the recitation therapy of Surah Ar-Rahman during hospitalization at Lumajang Islamic Hospital

Pain (pre)	Frequency	Percentage
Mild Pain	7	22,6
Moderate Pain	23	74,2
Severe Pain	1	3,2
Total	31	100,0

Source: 2025 Frequency Data

Table 2.1 shows that the majority of respondents hospitalized at Lumajang Islamic Hospital experienced moderate pain prior to receiving the Quranic therapy intervention using Surah Ar-Rahman, with 23 respondents (74.2%) reporting such pain.

Table 2.2 Pain levels after murottal therapy of Surah Ar-Rahman among inpatients at Lumajang Islamic Hospital

Pain (post)	Frequency	Percentage
Mild Pain	26	83,9
Moderate Pain	5	16,1
Total	31	100,0

Source: 2025 Frequency Data

Table 5.7 shows that the majority of inpatients at Lumajang Islamic Hospital experienced mild pain after intervention with murotal therapy of Surah Ar-Rahman, totaling 26 respondents (83.9%).

Table 2.3 Reduction in pain among patients with diabetic ulcers before and after therapy with murotal QS. Ar-Rahman during hospitalization at Lumajang Islamic Hospital

Pain (pre)	Pain (post)		Total
	Mild Pain	Moderate Pain	
Mild Pain	7 22,6%	0 0,0%	7 22,6%
Moderate Pain	19 61,3%	4 12,9%	23 74,2%
Severe Pain	0 0,0%	1 3,2%	1 3,2%
Total	26 83,9%	5 16,1%	31 100,0%

Source: 2025 Frequency Data

Based on the research results presented in Table 2.3, it can be found that there was a decrease in pain levels among patients with diabetic ulcers after treatment with murotal QS. Ar-Rahman in the inpatient ward of Lumajang Islamic Hospital. Before the intervention was administered, 7 respondents (22.6%) were in the mild pain category, 23 respondents (74.2%) experienced moderate pain, and 1 respondent (3.2%) experienced severe pain. After receiving murotal therapy, changes occurred in the respondents' pain levels. Of the 7 respondents who previously experienced mild pain, all (100%) remained in the mild pain category. Meanwhile, of the 23 respondents who previously experienced moderate pain, 19 (61.3%) experienced a reduction in pain to mild pain, and 4 (12.9%) remained in the moderate pain category. As for the 1 respondent who previously experienced severe pain, their pain level decreased to moderate pain (3.2%). Overall, after receiving murotal therapy with QS. Ar-Rahman, 26 respondents (83.9%) were in the mild pain category, and 5 respondents (16.1%) were in the moderate pain category, while no respondents remained in the severe pain category. These results indicate a significant reduction in pain levels following the murotal therapy, suggesting that the murotal therapy of Surah Ar-Rahman is effective in helping to reduce pain intensity in patients with diabetic ulcers.

Table 2.4 Wilcoxon Signed-Rank Test to Assess the Effect of Recitation Therapy of Surah Ar-Rahman on Pain Reduction in Patients with Diabetic Ulcers Hospitalized at Lumajang Islamic Hospital

Test Statistics ^a	
Pain (post) – Pain (pre) Therapy of Surah Ar-Rahman on Pain Reduction	
Z	-4,472 ^b
Asymp. Sig. (2-tailed)	,000

Source: 2025 Frequency Data

Based on the results of the Wilcoxon statistical test shown in Table 5.9, a Z-value of -4.472 was obtained with a significance level (Asymp. Sig. 2-tailed) of 0.000. This significance value is far smaller than the α threshold of 0.05; therefore, it can be concluded that there is a significant difference between pain levels before and after the application of murotal therapy of QS. Ar-Rahman in diabetic ulcer patients in the inpatient ward of Lumajang Islamic Hospital. Thus, the application of QS. Ar-Rahman murotal therapy has been statistically proven to be effective in reducing pain levels in patients with diabetic ulcers. These results support the research hypothesis that murotal intervention can be a beneficial non-pharmacological therapeutic alternative in pain management for patients with diabetic ulcers.

Discussion

The results of this study revealed that the majority of respondents undergoing inpatient care at Lumajang Islamic Hospital experienced moderate pain levels prior to receiving the Quranic intervention therapy for Surah Ar-Rahman, specifically 23 respondents, or 74.2%. Meanwhile, 7 respondents (22.6%) experienced mild pain, and only 1 respondent (3.2%) experienced severe pain. These findings indicate that the majority of patients experienced pain that was sufficiently bothersome but had not yet reached a severe level; thus, non-pharmacological interventions such as Quranic recitation therapy have the potential to significantly reduce the intensity of perceived pain.

Diabetic ulcers are one of the chronic complications of diabetes mellitus that frequently occur due to nerve damage (diabetic neuropathy), vascular disorders, and infection. One of the common complaints experienced by patients with diabetic ulcers is pain. The pain experienced can be sharp, burning, tingling, or a constant dull ache. This

pain arises due to peripheral tissue damage, local inflammation, and nerve compression caused by worsening wounds (Wahyuni, 2023).

Chronic pain can impair the quality of life for patients with diabetic ulcers. Patients often experience sleep disturbances, reduced mobility, anxiety, depression, and a diminished ability to perform daily activities. Prolonged discomfort can lead patients to avoid routine wound care, thereby worsening the condition of the ulcer. Therefore, pain management is a crucial component of the management of diabetic ulcers (Widiyanti, 2022).

The management of pain in diabetic ulcers is multidisciplinary. Pharmacological therapy includes the administration of non-opioid analgesics, opioids when necessary, and medications for neuropathy such as tricyclic antidepressants or anticonvulsants. Additionally, optimal wound care—including debridement, infection control, maintaining wound moisture, and improving blood glucose control—is essential for accelerating wound healing and reducing pain. Non-pharmacological therapies such as physical therapy, relaxation techniques, prayer therapy, and patient education also play a role in pain management. Educating patients on the importance of blood sugar control, routine foot examinations, the use of appropriate footwear, and early wound management is crucial for preventing the development of diabetic ulcers and the associated pain.

Researchers assume that these conditions were influenced by the effectiveness of the pain management protocol implemented at the hospital, although they were not entirely able to prevent patient discomfort. Additionally, other factors such as the type of illness, duration of care, or individual response to analgesic therapy may also contribute to variations in the level of pain experienced. These results indicate the need for a more in-depth evaluation of pain management protocols to ensure patient comfort during the treatment period.

After receiving the Quranic therapy intervention for Surah Ar-Rahman, the majority of respondents undergoing inpatient care at Lumajang Islamic Hospital experienced a reduction in pain levels to mild pain, totaling 26 respondents (83.9%). Meanwhile, 5 respondents (16.1%) still experienced moderate pain, and no respondents experienced severe pain after the intervention was administered. These results indicate a

significant reduction in pain levels following the recitation therapy, with the majority of respondents experiencing an improvement in their pain condition from moderate to mild pain. These findings suggest that murotal therapy using Surah Ar-Rahman has the potential to be effective as a non-pharmacological intervention in reducing pain intensity in hospitalized patients.

Patients with diabetic ulcers often experience significant pain due to peripheral nerve damage, infection, and inflammation in the affected tissue. This pain is often neuropathic in nature, affecting patients' comfort, sleep quality, and daily activities. Pain management in this condition relies not only on pharmacological treatment but can also be supported by non-pharmacological therapies that aid in pain control and enhance patients' psychological well-being (Widiyanti, 2022). The murotal therapy of Surah Ar-Rahman is one of the non-pharmacological interventions used to help reduce pain in patients with diabetic ulcers. Murotal is the recitation of the Qur'an, which has a calming effect both psychologically and physiologically. Surah Ar-Rahman was chosen because its message of Allah's mercy can evoke a sense of comfort and tranquility and reduce anxiety levels in patients. This state of relaxation affects the autonomic nervous system by reducing sympathetic activity, lowering blood pressure and heart rate, and reducing pain perception (Putri, 2020).

Following the treatment with QS. Ar-Rahman recitation, there was a significant reduction in pain intensity among patients with diabetic ulcers. The resulting relaxation effect helps reduce muscle tension, alleviate anxiety, and decrease activation of the limbic system, which plays a role in pain perception. Consequently, patients experience reduced pain intensity, feel calmer, and report improved sleep quality. Reduced emotional stress also contributes to suppressing the secretion of stress hormones such as cortisol, which indirectly supports the wound healing process (Hidayah et al., 2021).

The researchers concluded that the significant reduction in pain levels following the murottal therapy intervention using Surah Ar-Rahman—from a majority of moderate pain (74.2%) to a predominance of mild pain (83.9%)—demonstrates the effectiveness of this therapy as a non-pharmacological approach. This change indicates that audio stimulation through verses of the Qur'an is capable of influencing the pain perception system, both physiologically through nervous system relaxation and

psychologically through spiritual calm. The disappearance of the severe pain category post-intervention reinforces the hypothesis that this therapy primarily impacts mild to moderate pain, through mechanisms such as distraction or increased endorphin release. This assumption aligns with previous findings that religion-based interventions can reduce anxiety and enhance pain tolerance. However, the fact that 16.1% of respondents still experienced moderate pain after therapy suggests the need to evaluate supporting factors such as the duration of therapy or the patient's clinical condition. Thus, murottal therapy has the potential to serve as a safe and affordable adjuvant therapy, though it should be combined with conventional medical management for optimal results.

Overall, after receiving murottal therapy of Surah Ar-Rahman, 26 respondents (83.9%) were in the mild pain category, and 5 respondents (16.1%) were in the moderate pain category, while no respondents experienced severe pain. These results indicate a significant reduction in pain levels following the administration of murottal therapy, suggesting that murottal therapy using Surah Ar-Rahman is effective in helping to reduce pain intensity in patients with diabetic ulcers. Surah Ar-Rahman is chosen for murottal therapy because its verses have a calming effect and remind people of Allah's blessings, including good health. Listening to this murottal can stimulate the parasympathetic response, which helps lower blood pressure, heart rate, and stress levels. In the context of pain, this relaxing effect can reduce muscle tension and increase pain tolerance. Several studies suggest that soothing audio stimulation, including the recitation, can influence the central nervous system to release endorphins, which are natural pain-relieving hormones (Fadilah et al., 2023).

The Murottal Al-Qur'an, particularly Surah Ar-Rahman, not only holds spiritual value but has also been scientifically proven to provide therapeutic benefits for patients' physical and psychological health. The primary function of the Murottal is as a medium for spiritual audio therapy that can induce relaxation, reduce stress levels, anxiety, and even pain in patients. Research by Hamid et al. (2023) states that the recitation of Quranic verses, read in a clear and melodious manner, can influence the parasympathetic nervous system, leading to a decrease in heart rate, blood pressure, and pain perception. Researchers hypothesize that the recitation therapy of Surah Ar-Rahman has a significant effect in reducing pain in patients with diabetic ulcers through

mechanisms of relaxation, endorphin release, and spiritual support. However, further research with larger samples and more rigorous methods is needed to strengthen the evidence of its effectiveness. Integrating this therapy into palliative care could be a promising alternative for improving the quality of life for diabetic patients with ulcer complications. In addition to physiological effects, murottal therapy also provides spiritual benefits that strengthen patients' psychological well-being. Belief in the power of prayer and the sacred verses of the Qur'an can boost motivation and hope for healing (optimism). This spiritual support is crucial in managing chronic pain, as stable emotional states help patients better cope with pain. A combined intervention of medical therapy and spiritual approaches, such as reciting Surah Ar-Rahman, can serve as a holistic solution for patients with diabetic ulcers.

Based on the research findings, recitation therapy has been proven to reduce pain intensity in patients with diabetic ulcers, although a small proportion of patients still fall into the moderate pain category. Therefore, the next step in this research area is to integrate recitation therapy into the standard operating procedures (SOPs) for non-pharmacological pain management in inpatient wards. The standardized implementation of murottal in the SOP will regulate the duration, implementation methods, and evaluation of results, ensuring that this intervention is carried out in a systematic, consistent, and accountable manner. The implementation of murottal in SOPs is also aligned with the principles of holistic and evidence-based healthcare, thereby supporting improved service quality, addressing patients' spiritual needs, and complementing existing pharmacological and non-pharmacological interventions. Thus, the implementation of murottal therapy in accordance with SOPs in clinical practice is a crucial step toward ensuring comprehensive and high-quality pain management.

Conclusion

Listening to the Murottal Surah Ar-Rahman can stimulate the parasympathetic response, which helps lower blood pressure, heart rate, and stress levels. In the context of pain, this relaxing effect can reduce muscle tension and increase pain tolerance. Murottal therapy has been shown to reduce pain intensity in patients with diabetic ulcers, although a small proportion of patients still experience moderate pain. Therefore,

the next step in this research is to integrate murottal therapy into the standard operating procedures (SOPs) for non-pharmacological pain management in inpatient wards. The standardized implementation of murottal within the SOP will regulate the duration, method of administration, and evaluation of results, ensuring that this intervention can be carried out systematically, consistently, and in a manner that is accountable.

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