



THE EFFECT OF RHEUMATIC GYMNASTIC AND SHALAWAT NARIYAH ON THE PAIN LEVEL OF GOUT ARTHRITIS PATIENTS

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ABSTRACT	Keywords
Uric acid levels in the blood exceeding normal limits can cause a buildup in the joints and organs. This buildup causes the joints to feel sore, painful and inflamed. This study aimed to determine the effect of Rheumatic Gymnastics and Shalawat Nariyah on the pain level of patients with gout arthritis. This study used a pre-experimental one-group pre-posttest design. A total of 34 respondents were obtained by total sampling. The instrument was the Numeric Rating Scale. The results showed that before being given the intervention, 23 people (67.6%) experienced moderate pain, while after being given the intervention, 19 people (55.9%) experienced mild pain. The hypothesis was tested using the Wilcoxon test with the results ($P = 0.000 \leq \alpha 0.05$), meaning that Rheumatic Gymnastics and Shalawat Nariyah had an effect on pain levels in patients with gout arthritis. Rheumatic Gymnastics and Shalawat Nariyah can stimulate an increase in the release of endorphin hormones and cause a relaxing effect on reducing pain in patients with gout arthritis.	Arthritis, Gout, Gymnastic, Pain level, Musical therapy

INTRODUCTION

High levels of uric acid in the blood that exceed normal limits can cause a buildup in the joints and other organs of the body. This buildup causes the joints to feel sore, painful, and inflamed (Pailan et al., 2023). Gout arthritis pain usually appears suddenly at night, with recurrent and excruciating symptoms. The impact of this

recurrent pain can cause anxiety, abnormal heart rate, disruption of blood circulation and respiratory rate, thus disrupting daily activities. (Sari et al., 2022). The need for non-pharmacological therapy to overcome the impact of prolonged pain.

The World Health Organization (WHO) states that patients with hyperuresemia increase yearly. This

increase also occurred in developing countries, one of which is Indonesia. The incidence of gout is around 1-4% of the general population. In Western countries, men suffer from gout more than women, 3-6%. In some countries, the prevalence can increase by 10% in men and 6% in women in the age group ≥ 80 years. The annual incidence of gout is 2.68 per 1,000 people. Worldwide, gout is increasing gradually due to poor eating habits such as poor diet, lack of exercise, obesity, and metabolic syndrome (Arlinda et al., 2021).

Based on the results of Indonesia Basic Health Research (*Riskesdas*) 2018, the prevalence of gout based on diagnosis in health workers in Indonesia was 11.9%, and the prevalence of gout based on diagnosis or symptoms was 24.7%, with the highest prevalence at the age of 75 years, with a high profile (Pailan et al., 2023). Gout arthritis in East Java Province is 24.3% in men and 11.7% in women (Marlina, 2022).

In Lamongan Regency, Gout arthritis was included in the top 10 significant diseases 2016. Verbal information from the Lamongan District Health Office on March 25, 2019, stated that people only do uric acid checks if they feel symptoms of joint pain so that hyperuricemia diagnosis data cannot be explicitly reported (Anggraini & Utami, 2022).

Based on an initial survey at the Village Health Post (poskesdes) of Tambakpulo Village, Turi District, Lamongan Regency, there were 37 people with gout arthritis. The results of the initial assessment using the Numeric Rating Scale (NRS) of 37 people with gout arthritis, three people stated that they experienced moderate to severe pain complaints, with two people stating a pain scale of 6 and one other person saying a pain scale of 8. The pain complaints that are felt interfere with their daily activities.

A greater concentration of uric acid in the serum can lead to the accumulation of monosodium urate crystals. Furthermore, an inflammatory response occurs and continues with the occurrence of gout attacks. If it settles in the peripheral parts of the body, such as the big toe, hands, and ears, it causes pain (Scientific, 2021). Pain in gout arthritis has distinctive characteristics and is characterized by sudden attacks. The affected joint area feels like burning, swelling, redness, heat, and stiffness. Usually, this pain occurs at night or upon waking up. When the air is cold, the joints of the feet are painful, stiff, and immobile. This can cause daily activities to be disrupted (Jauhara et al., 2022).

Gout arthritis can be treated both by pharmacological treatment and non-pharmacological treatment. To overcome complaints of pain in patients with gout arthritis, pharmacological therapy usually given is painkillers/analgesics of the NSAID (non-steroidal anti-inflammatory disease) group, such as ibuprofen and diclofenac sodium. Often, pharmacological treatment in the long term can cause various side effects. Usually, non-pharmacological efforts are more widely chosen (Fadilah & Novitayanti, 2021).

One of the efforts in overcoming pain in patients with gout arthritis is utilizing cold compresses, which are only effective for acute cases or pain less than 48 hours. Rheumatic gymnastics is more effective because it only takes three times a week. Also, the effect of rheumatic gymnastics is faster in reducing pain, namely a shorter duration of time with an average difference in the reduction scale of 2.53 pre-post.

Rheumatic gymnastics is a physical exercise in non-pharmacological therapy used in patients with gout arthritis. Rheumatic gymnastics can stimulate the increase and release of endorphins, so rheumatic gymnastics already contains

elements related to dynamic muscle contractions and involves many muscles and joints that can reduce heart rate and pulse rate to cause pain and reduce joint stiffness. Rheumatic gymnastics can also divert a person's perception of pain because this adaptation is an efficient function to relieve pain (Masyuta & Rejeki, 2022).

One of the non-pharmacological therapies is spiritual therapy, more commonly called psychoreligious therapy. Psychoreligious contains religious elements that can generate hope, confidence, and faith that increase the immune system in sick people to accelerate the healing process. One of them is Sholawat Nabi, which contains poems about the life of the Prophet and sholawat for the Prophet, which will increase our closeness to Allah (Lestari et al., 2023).

Considering many shortcomings in overcoming pain reduction in patients with gout arthritis, researchers modify these efforts by combining complementary therapy and spiritual therapy to provide rheumatic gymnastics therapy, and shalawat nariyah can add a relaxing effect where relaxation can reduce pain levels in patients with gout arthritis. This is in line with research in the form of case studies conducted by Tri Novana et al. (2021); the pain scale experienced by clients can be reduced using rheumatic gymnastics therapy. There was a decrease in the pain scale in the first client and the second client after receiving rheumatic gymnastics therapy. In another study conducted by Navila (2021) in Sampang Regency, the results showed that there were significant changes between before being given sholawat music therapy and after being given sholawat music therapy.

METHOD

This research design used pre-experimental with a one-group pre-post-test approach with a sample of 34 people with gout arthritis aged 26 - 45 years using a total sampling technique. This research was conducted in Gabus Hamlet, Tambakploso Village, Turi District, Lamongan Regency, from February to March 2024. The researchers used the Numeric Rating Scale (NRS) pain assessment instrument and Standard Operating Procedure (SOP) intervention of Rheumatic Gymnastics and Sholawat Nariyah. The intervention was given for two weeks, with six meetings for 20 minutes. Pain level data were analyzed using the Wilcoxon test with significant results of $p < 0.05$.

RESULTS

Table 1. Frequency Distribution of General Characteristics of Patients with Gout Arthritis in Gabus Hamlet, Tambakploso Village, Turi District, Lamongan Regency 2024.

Characteristics of Respondents	Category	f	%
Gender	Male	7	20.6
	Female	27	79.4
Age	26-35 years old	6	17.6
	36-45 years old	28	82.4
Education	Elementary school	4	11.8
	Junior high school	10	29.4

Characteristics of Respondents	Category	f	%
	Senior high school	19	55.9
	Diploma Bachelor	1	2.9
Job	Housewife	22	64.7
	Self-employed	4	11.8
	Farmer	7	20.6
	Civil servant	1	2.9

Table 1 shows that of the 34 respondents, almost all are female, 27 people (79.4%) and a small proportion were male, amounting to seven people (20.6%). The table above also shows that almost all respondents are 36 - 45 years old, 28 people (82.4%), and a small proportion are 26 -35 years old, six people (17.6%).

Table 1 also shows that of the 34 respondents, more than most have a high school education, 19 people (55.9%), almost some have a junior high school education, ten people (29.4%), a small proportion have an elementary education, four people (11.8%) and a Diploma/Bachelor's degree as many as one person (2.9%). Of the 34 respondents, more than most were housewives: 22 people (64.7%), a small proportion worked as farmers, seven people (20.6%), a small proportion worked as entrepreneurs, four people (11.8%) and worked as civil servants as many as one person (2.9%).

Table 2. Pain Level of Gout Arthritis Patients Before and After Intervention in Gabus Hamlet, Tambakploso Village, Turi District, Lamongan Regency 2024

Pain measurement	Pre-test		Post-test	
	F	%	F	%
No pain	0	0%	8	23.5%
Mild pain	7	20,6%	19	55.9%
Moderate pain	23	67,6%	7	20.6%
Severe pain	4	11,8%	0	0%
Total	34	100%	34	100%

Table 2 shows that before (pre-test) given the intervention of Rheumatic Gymnastics and Sholawat Nariyah, more than most of the gout arthritis patients experienced moderate pain, as many as 23 people (67.6%), and after (post-test) more than most of the gout arthritis patients had mild pain levels as many as 19 people (55.9%).

Table 3. The Effect of Rheumatic Gymnastics and Sholawat Nariyah Interventions on Pain Levels in Patients with Gout Arthritis in Gabus Hamlet, Tambakploso Village, Turi District, Lamongan Regency 2024

Pain measurement	Min - Max	Mean	SD	P
Pre-test	3-7	4.68	1.364	
Post-test	0-6	2.15	1.635	

Based on Table 3, the average pain intensity before the intervention of Rheumatic Gymnastics and Sholawat

Nariyah is 4.68, and the median value is 4.00, with the highest pain intensity being seven and the lowest pain intensity being 3. The average pain intensity after (post-test) is 2.15, and the median value is 2.00, with the highest pain intensity at six and the lowest at 0.

DISCUSSION

The results showed a significant difference between pain levels before and after the intervention of Rheumatic Gymnastics and Sholawat Nariyah for people with gout arthritis. Clinical symptoms of gout arthritis are acute attacks that are monoarticular or attack only one joint. Patients complain of swelling, redness, severe pain, and heat accompanied by impaired movement of the affected joint, which occurs suddenly, reaching a peak of less than 24 hours (Hayati et al., 2023). According to the American Geriatric Society, exercise such as gymnastics at least three times a week can significantly improve the health of patients with arthritis, including gout arthritis (Aminah et al., 2022).

Gymnastics can stimulate an increase in the release of endorphins. Endorphins provide analgesia by blocking the process of releasing substance p from sensory neurons so that the process of transmitting pain impulses in the spinal cord becomes inhibited and the pain sensation is reduced. Rheumatic gymnastics has a direct psychological effect, which can help provide relaxation (Elviani et al., 2022). The research results by Hasanah et al. (2023) showed a decrease in the pain scale after doing rheumatic gymnastics therapy because it is caused by the production of endorphine hormones, which can reduce the pain scale during the gymnastics process.

This research is also in line with research conducted by Khairiyah et al. (2022) sholawat, which was applied two times a day for two days with a time of 10-

15 minutes. Clients experienced a decrease in pain from moderate to mild scale pain levels, pulse frequency improves, and anxious expressions decrease. Sholawat can also provide peace and tranquility in psychotherapy or psychological aspects; sholawat can also be an alternative non-pharmacological pain treatment to reduce pain intensity. Based on religious statements, faith plays a vital role in a person's inner peace (Supriyanti, 2020).

According to researchers, before being given the intervention of Rheumatic Gymnastics and Sholawat Nariyah, people with gout arthritis complained of pain due to age, diet, activity, and gender factors. People with gout arthritis experienced moderate to severe pain with complaints of pain primarily felt in the fingers, and pain was usually felt in the morning or at night. After being given the intervention, there was a decrease in pain because the intervention could increase the production of endorphins, which made the body more relaxed and decreased the pain sensation.

The results of this study are also reinforced by research conducted by Masyuta and Rejeki (2022) that rheumatic gymnastics has an effect on reducing the intensity of the pain scale in patients with gout. Researchers also explained that rheumatic gymnastics can stimulate the increase and release of endorphin hormones. Rheumatic gymnastics also contains elements related to dynamic muscle contractions and involves many muscles and joints that can reduce heart rate and pulse rate, thereby reducing pain and joint stiffness.

According to Satria & Ningrum (2023), exercise or gymnastics, in this case including rheumatic gymnastics, has a direct psychological effect helping to give a feeling of relaxation, reduce tension, and increase feelings of pleasure because, during gymnastics, the pituitary gland increases

production or increases beta-endorphin levels. Rest may relieve pain but only decreases the pain scale with a small range of decrease because rest, such as sleeping or sitting still without movement, does not stimulate the release of endorphins. Movement such as rheumatic exercises and exercise has a better impact on people with joint pain than rest.

This research is also in line with research conducted by Navila (2021), it was found that there were significant changes between before being given sholawat music therapy and after being given sholawat music therapy. This is because sholawat physically contains elements of the human voice, while the human voice is a fantastic healing tool and the most accessible tool. (Lestari et al., 2023). Praying to the Prophet also has good benefits that can make the body produce the endorphin hormone, which is a natural endorphin hormone produced by the human body and functions as a natural pain reliever (Khairiyah et al., 2022).

CONCLUSIONS

The combination of rheumatic gymnastics therapy and sholawat nariyah can reduce the pain level of gout arthritis patients. This therapy positively affects the patient's psychology by stimulating the pituitary gland to produce endorphin hormone, which relaxes the body and reduces the subtle pain response.

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