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Warm Ginger and Lemongrass Compress Reduces Joint Pain in Hyperuricemia

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Abstract
The increasing prevalence of gout has led to many health problems and it needs awareness to improve health. One way is providing complementary treatment such as Warm Ginger and Lemongrass Compresses on Reducing Joint Pain in Hyperuricemia Patients. This activity was carried out by lecturer with students from the Nurse Profession Study Program, Murni Teguh University at the Suka Mulia Hulu Village Hall and attended by 21 persons who have Hyperuricemia. The respondents were enthusiastic joining the program and evidently active in Question & Answer session. All respondents were female (100%). Mostly were aged of 56 – 60 years (33.3%), and 51 – 55 years (28.6%). The education levels were mostly Senior High School/Vocational (38.1%), and Junior High School (33.3%). The all respondents were farmer (100%). The majority were not control routinely (57.1%). The majority of respondents were not compliance taking gout medication (61.9%). The joint pain level on pretest were majority on moderate level with 15 respondents (71.4%). The majority of joint pain level on posttest were on mild level with 16 respondents (76.2%). The application of warm ginger and lemongrass compresses to patients with gout decreased joint pain, reduced joint stiffness, and increased mobility. It is recommended to be carried out as a complementary treatment.

Keywords: Children, Education, Growth and Development, Toddlers

INTRODUCTION

Hyperuricemia is a condition where uric acid levels in the blood exceed the normal value, which is >7 mg/dL in men and >6 mg/dL in women. This condition occurs due to increased uric acid production, impaired uric acid excretion through the kidneys, or a combination of both. Chronic hyperuricemia can cause the deposition of monosodium urate crystals in the joints, causing inflammation, joint pain, swelling, limited mobility, and even a reduced quality of life. In addition to causing musculoskeletal disorders, hyperuricemia is also associated with an increased risk of hypertension, cardiovascular disease, metabolic syndrome, and chronic kidney disease.

Non-communicable diseases, including metabolic disorders, are currently on the rise in Indonesia. The joint disease and metabolic disorders remain significant public health problems, particularly among adults and the elderly. It does not specifically report the national prevalence of hyperuricemia annually, various Indonesian epidemiological studies over the past five years indicate a prevalence of hyperuricemia in the adult population ranging from 13% to 24%, with a trend toward an increase in the elderly, those with obesity, hypertension, and those with a high-purine diet (Kementerian Kesehatan Republik Indonesia (Kemenkes RI), 2026).

The World Health Organization (WHO) estimates the global prevalence of gout arthritis at 34.2%. Gout is common in developed countries like the United States, where it is 26.3% of the total population. In Indonesia, gout is prevalent in those under 34 years of age, at 32%, and

E-ISSN : 3025-0013
International Journal Community Service Implementation
Vol. 4 No. 1 June 2026, Page 232 - 238

in those over 34 years of age at 68% (Kementerian Kesehatan Republik Indonesia (Kemenkes RI), 2026). A preliminary study conducted by interviewing 10 elderly people revealed that 7 of the 10 with joint pain had gout. Of the 7, 4 were male and 3 were female. The average age of the 7 elderly with gout was 60-80 years. The elderly who experience gout, it is known that they have a habit of consuming foods high in purines, rarely doing physical activity and the elderly do not routinely control their uric acid levels with health services (Yulendasari, Sundoro, & Isnainy, 2020).

The increasing prevalence of gout has led to improvements in its treatment, resulting in improved health outcomes. This situation indicates a lack of public awareness regarding early prevention and treatment. This limited public knowledge about gout can influence attitudes and health behaviors, including those related to the management of gouty arthritis. One way to improve knowledge about gout treatment by providing complementary treatment such as Warm Ginger and Lemongrass Compresses on Reducing Joint Pain in Hyperuricemia Patients.

RESEARCH METHODS

This community service was carried out by lecturer with students from the Nurse Profession Study Program, Murni Teguh University. This Community Service activity was carried out at the Suka Mulia Hulu Village Hall, Namorambe District, Deli Serdang Regency, North Sumatra Province on December 17, 2025. This Community Service activity was attended by 21 persons who have Hyperuricemia. Before providing Warm Ginger and Lemongrass Compresses intervention, it first began with registration. Next, Community Service event was opened by the Event Moderator, delivering topic, do simulation to each respondent of Warm Ginger and Lemongrass Compresses intervention and ending with a question and answer session. Then the closing event was guided by the Event Moderator. The Flowchart for the Implementation of Community Service Activities is shown in Figure 1.

Figure 1. The Flowchart for the Implementation of Community Service Activities

Photo of the Community Service implementation at the Suka Mulia Hulu Village Hall, providing Warm Ginger and Lemongrass Compresses intervention. Initially, some participants were late to the session, but the participants were fully engaged and understood the speaker's presentation and simulation. The presentation lasted 20 minutes and simulation aroung an hour. The implementation of Community Service in Warm Ginger and Lemongrass Compresses is shown in Figure 2.

E-ISSN : 3025-0013
International Journal Community Service Implementation
Vol. 4 No. 1 June 2026, Page 232 - 238

Figure 2. Implementation of Warm Ginger and Lemongrass

RESULTS AND DISCUSSION

The face-to-face Community Service activity included health education Service in Warm Ginger and Lemongrass Compresses and simulation. The event ran smoothly, despite some challenges. The details of the activity are as follows:

E-ISSN : 3025-0013
International Journal Community Service Implementation
Vol. 4 No. 1 June 2026, Page 232 - 238

Table 1. Respondent Characteristics

Respondent Characteristics	Frequency (f)	Percentage (%)
Gender:		
Male	0	0.0
Female	21	100
Age:		
45 – 50 Years	4	19.05
51 - 55 Years	6	28.60
56 - 60 Years	7	33.30
61 – 65 Years	4	19.05
Education Level:		
Elementary School	5	23.8
Junior High School	7	33.3
Senior High School/Vocational	8	38.1
Bachelor or Master's degree	1	4.8
Occupation:		
Farmer	21	100
Control Routinely:		
Yes	9	42.9
No	12	57.1
Taking Gout Medication Compliancely:		
Yes	13	61.9
No	8	38.1
Total	21	100

Table 1 showed that all were female (100%). The majority age is 56 – 60 years with 7 respondents (33.3%), and followed by 51 – 55 years with 6 respondents (28.6%). The majority education levels were Senior High School/Vocational with 8 respondents (38.1%), and followed by Junior High School with 7 respondents (33.3%). The all respondents were farmer (100%). The majority were not control routinely with 12 respondents (57.1%). The majority of respondents were taking gout medication compliancely with 13 respondents (61.9%).

Table 2. Frequency Distribution of Joint Pain Level Before and After Warm Ginger and Lemongrass Compresses

Joint Pain Level	Pretest		Posttest	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
No	0	0.0	2	9.5
Mild	5	23.8	16	76.2
Moderate	15	71.4	3	14.3
Severe	1	4.8	0	0.0
Very Severe	0	0.0	0	0.0
Total	21	100	21	100

Table 2 showed that the joint pain level on pretest were majority on moderate level with 15 respondents (71.4%). Meanwhile, on posttest, the majority of joint pain level were on mild level with 16 respondents (76.2%).

E-ISSN : 3025-0013
International Journal Community Service Implementation
Vol. 4 No. 1 June 2026, Page 232 - 238

The study used a one-group pretest-posttest design in 43 elderly patients with rheumatoid arthritis to assess the effect of warm ginger compresses on pain intensity. The results showed a significant reduction in pain (p=0.000) after the intervention. Most respondents who initially experienced moderate pain experienced mild pain after receiving the warm ginger compresses. The study concluded that warm ginger can be used as a complementary therapy for joint pain (Sari, & Masruroh, 2021). A case study on the effectiveness of warm red ginger compresses on elderly people with joint pain showed a reduction in pain after 10–15 minutes of therapy daily for 7 days. Researchers suggest that gingerol and essential oils in ginger contribute to its analgesic and anti-inflammatory effects (Muchlis, & Ernawati, 2021).

A quasi-experimental study of gouty arthritis patients found that warm compresses significantly reduced pain levels ($p<0.05$). The mechanism of action of this therapy is thought to be through increased blood circulation and muscle relaxation around the joints (Aminah, Saputri, & Wowor, 2022). A study of warm lemongrass compresses in elderly patients with joint pain showed a change in pain level from moderate to mild after treatment. Researchers concluded that the citral and flavonoids in lemongrass contribute to its anti-inflammatory and muscle-relaxing effects (Anggraeni, & Susilowati, 2022).

Literature review research on warm compresses with ginger extract in gout arthritis patients shows that giving therapy for 3-7 days can reduce pain intensity from moderate to mild (Marhaham, & Setyawati, 2022). Research on the application of warm compresses with lemongrass decoction to elderly patients with gout-related joint pain showed a reduction in pain levels after the intervention. Lemongrass is thought to help increase local vasodilation and reduce joint tissue inflammation (Rosima, Fitri, Anggreini, & Ezdha, 2025).

A study compared warm cinnamon compresses and ginger decoction in elderly gout patients. Results showed that both therapies reduced joint pain, but the ginger compresses provided a greater pain-reducing effect (Umah, Rahmawati, Gustomi, & Yunita, 2020). The other finding on gout arthritis patients in the working area of the Simpang Tiga Health Center. The sample of 36 people divided into 2 groups of 18 people with warm lemongrass compress intervention and 18 people with warm ginger compress intervention. The results showed that there is a difference between the two intervention groups, namely warm ginger compresses are more effective in reducing pain than warm lemongrass compresses. It is recommended for the Simpang Tiga Health Center to be a source of information about herbal/complementary medicines for people with gout arthritis and its treatment so that the public can know about herbal medicines that are beneficial to health (Awaluddin, & Asmarita, 2025).

Community service activities were conducted in the Karang Anyar Community Health Center in Bandar Lampung, using warm ginger compresses on gout patients. Results showed a decrease in pain levels after the intervention, and patients experienced relaxation and increased activity. The community service team stated that the gingerol, zingerone, and shogaol compounds help reduce joint inflammation (Ananda, Idawati & Zainaro, 2023).

The activity involved applying red ginger compresses to elderly patients with gout. The compresses were applied for 20 minutes and continued for six days. Results showed a decrease in pain from moderate to mild, and participants reported increased comfort. The community service team concluded that red ginger compresses could be a simple and affordable alternative community therapy (Nugraha, & Hermawati, 2025).

CONCLUSION

After this community service program, it is concluded that all were female (100%). The majority age is 56 – 60 years with 7 respondents (33.3%), and followed by 51 – 55 years with 6 respondents (28.6%). The majority education levels were Senior High School/Vocational with 8 respondents (38.1%), and followed by Junior High School with 7 respondents (33.3%). The all respondents were farmer (100%). The majority were not control rountinely with 12 respondents (57.1%). The majority of respondents were taking gout medication compliancely with 13 respondents (61.9%). The joint pain level on pretest were majority on moderate level with 15 respondents (71.4%). Meanwhile, on posttest, the majority of joint pain level were on mild level with 16 respondents (76.2%). The application of warm ginger and warm lemongrass compresses to patients with gout decreased joint pain, reduced joint stiffness, and increased mobility. It is recommended to be carried out as a complementary treatment.

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