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ANALYSIS OF NURSING CARE FOR THE ELDERLY WITH APPLICATION OF WARM CITRONELLA COMPRESS TO TREAT ACUTE PAIN RHEUMATOID ARTHRITIS IN A NURSING HOME JAMBANGAN SURABAYA

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Abstract

Introduction: Rheumatoid arthritis (RA) is an inflammatory disease with symptoms of stiffness and pain in the joints. Individuals typically experience pain and weakness in specific body parts, namely the hands, feet, knees, and shoulders. Complaints of pain characterized by cramps and tingling are sensory complaints. If pain complaints are not treated or medication is not given, the impact will be disruption of physical activity, disruption of sleep patterns, and also disruption of comfort.

Objective: To provide an overview of nursing care for the elderly by applying warm lemongrass compresses to treat rheumatoid arthritis pain at the Surabaya Nursing Home.

Methods: The research method used is a case study. The subject of this research is Mr. B who is 61 years old with acute pain problems and was given warm lemongrass compresses for three days. Data collection techniques in this research were carried out by interviews and direct observation of patients using gerontic nursing care sheets and pain scale measurements using the numerical rating scale (NRS) method.

Results: The results obtained by the client did not appear to be grimacing and were careful with his movements, complaints of pain from scale 2 (moderately increased) to scale 1 (decreased), grimaces from scale 2 (moderately increased) to scale 1 (decreased), restlessness from scale 2 (moderately increased) to scale 1 (decreased), difficulty sleeping from scale 2 (moderately increased) to scale 1 (decreased).

Conclusions*:* Applying warm lemongrass compresses can reduce the intensity of pain complaints improve blood circulation and relax the patient. Therefore, we hope that nurses will apply warm lemongrass compresses to patients with rheumatoid arthritis.

INTRODUCTION

Everyone in their survival must experience the process of growing old. An increase in the number of older people is at risk of causing a decrease in health status. In the process of aging, a person will experience setbacks in terms of physical, mental, or social abilities that will impact various aspects of his life. The aging process causes changes in physiological functions, in the musculoskeletal system.

There is a decrease in muscle tone, strength, and endurance, such as stiffness and pain in joint movements. The physiological condition of the musculoskeletal system which has decreased function causes the emergence of a disease in the elderly, namely rheumatoid arthritis.

Rheumatoid arthritis (RA) is an inflammatory disease with symptoms of stiffness and pain in the joints. Pain and weakness are usually felt in the limbs, namely the hands, feet, knees, and shoulders. Complaints of pain that are felt like cramps and tingling are sensory complaints. The process of Rheumatoid Arthritis in the elderly is an inflammatory disorder that mainly affects the synovial membrane of the joints and generally presents with joint pain, joint stiffness, decreased mobility, and fatigue.

According to WHO data (2016), as many as 335 million people worldwide have arthritis. According to the Arthritis Foundation (2015), as many as 22% or more than 50 million adults in the United States aged 18 years or older are diagnosed with arthritis. From this data, around 3% or 1.5 million adults experience *rheumatoid arthritis*. *Rheumatoid arthritis* occurs in 0.5-1% of the adult population in developed countries. The incidence of *rheumatoid arthritis* in 2016 as presented by WHO (World Health Organization) reached 20% of the world's population, 5-10% aged 5-10 years and 20% were those aged 55 years. Based on data from the National Basic Health Research (National Riskesdas, 2018) the proportion of the dependency level of elderly aged 60 years and over with *rheumatoid arthritis* in Indonesia is 67.4% independent elderly, 28.4% mildly dependent elderly, 1.5% moderately dependent elderly, 1.1% of the elderly are heavily dependent, and 1.5% of the elderly are dependent. 2 One type of rheumatism that is often seen in the elderly is *rheumatoid arthritis*.

In Indonesia, the prevalence of *rheumatoid arthritis* based on a doctor's diagnosis is 7.30%. The highest prevalence based on a doctor's diagnosis was in Aceh at 13.26%, followed by Bengkulu at 12.11%, Bali at 10.46%, Papua at 10.43%, and West Kalimantan at 9.57%. According to age characteristics, those who experience *rheumatoid arthritis* are more than 60 years old, namely 18.95% (Riskesdas, 2018). An increase in the number of the elderly population experiencing *rheumatoid arthritis* has also occurred in East Java, based on Indonesian statistical data (2016). The results of the researchers' observations found that 25 elderly people had *rheumatoid arthritis*.

Rheumatoid arthritis is usually caused by several factors, including autoimmune problems, namely the body's immune system turning against viruses and bacteria, triggering the onset of *rheumatoid arthritis*. The cause of autoimmune disease is also supported by other problems, namely genetics also affects it. The work also exacerbates the occurrence of rheumatoid arthritis, a common complaint, due to the prolonged use of the hands, which places excessive strain on the joints. Foods that contain high purines and the body cannot utilize them will cause the problem of *rheumatoid arthritis*. Many other risk factors that cause *rheumatoid arthritis* include age over 40 years because the metabolic system at that age has begun to be disrupted or has decreased function, but it does not rule out the possibility of productive age groups also being affected. At the age of less than 45 years, it affects more

men while those over 45 years suffer more from women, ages 50 and over caused by degeneration or damage to the joint surface. All joints can be affected by *rheumatoid arthritis*.

Patients with joint pain need to be treated with pharmacological and non-pharmacological efforts. Pharmacological treatment is treatment with the use of drugs that are at risk of having a further impact on the elderly. Therefore, non-pharmacological treatment can be a solution to dealing with joint pain. Handling with non-pharmacology is an effort that is easy for the elderly to do and can be done in several ways, namely warm lemongrass compresses. Compression is an activity easily done by the elderly in nursing homes. Warm compresses can provide a warm feeling to joint pain sufferers and improve blood circulation so that they can reduce pain, and provide a sense of comfort and calm. Warm compress therapy with lemon grass can be used as an alternative therapy in reducing pain scale in sufferers of joint pain.

Lemongrass warm compresses contain substances that are useful in reducing joint pain in the elderly. Lemongrass leaves have many ingredients that can overcome pain, namely essential oils, potassium, and magnesium which can regulate muscle function so that it runs well. Essential oils in lemongrass have chemical properties and pharmacological effects, they taste spicy and warm, to relieve aches and pains, as well as improve blood circulation to relieve muscle and joint pain in patients with rheumatoid arthritis, body aches and headaches, (Ulung et al, 2018). Essential oils can cause physical and psychological relaxation effects because they contain highly bioactive substances such as linalool, linalyl acetate, and Easter so they have a natural analgesic effect to relieve muscle pain. Research by Andriani (2016) entitled The Effect of warm lemongrass compresses on the Pain Intensity of *rheumatoid arthritis* in the elderly, which states that warm compresses with lemongrass are non-pharmacological measures that can be taken to relieve or reduce rheumatoid arthritis pain (Anne Rufaridah, Ayuro Cumayunaro, 2020). The rationale for using warm citronella compresses is well-articulated, emphasizing its non-pharmacological benefits. However, the introduction could be enhanced by incorporating more recent global and regional statistics to contextualize the prevalence and impact of RA better. Additionally, a brief discussion of alternative non-pharmacological treatments would further strengthen the rationale for choosing citronella compresses.

METHODS

Study Design

This analysis uses the case method with the case method approach. This case study is to explore the application of warm lemongrass compresses to reduce *rheumatoid arthritis pain* that occurs in the elderly.

Settings

The location of this nursing care analysis was carried out at the Jambangan Surabaya nursing home, for several reasons including:

a. The location is easy to reach;
b. Some patients experience acute pain problems at the Wreda Rumah Sakit Surabaya;
c. The same study has never been carried out on applying warm lemongrass compresses to reduce *rheumatoid arthritis pain;* and
d. The duration of research on clients is three days, starting from 10-13 June 2023. Students will carry out nursing care for Mr. with acute pain nursing problems. The length of time adjusts to the target of action success of at least three days during treatment.

Research subject

This nursing care analysis was carried out by Mr. B with nursing problems of acute pain disorder in the Hemodialysis room at RSI Jemursari Surabaya.

Instruments

The data collection tool for patients uses nursing care sheets using observation and interviews.

Data collection

The author approaches by introducing himself and explaining the goals and intentions to the client. The author asked for time and willingness to do the study. Obtain approval from the client, and the client will be willing to participate in further research, namely signing *an informed consent* to become a respondent. The author conducts interviews and direct observation of clients. After the data is collected, the authors determine the priority of the problem by the Indonesian standard of nursing diagnoses (IDHS). After that, the authors created an intervention that refers to EBN (Evidence *Based in Nursing)* and is by Indonesian nursing intervention standards (SIKI). Giving lemongrass warm compresses to patients who have *rheumatoid arthritis* is done once a day.

Data Analysis

The analysis was conducted in alignment with the Indonesian standard of nursing diagnoses (IDHS) and nursing intervention standards (SIKI), ensuring that the interventions were evidence-based and tailored to the patient's specific needs.

Ethical Consideration

In this study, informed consent was obtained from the participants, ensuring they were fully aware of the study's purpose, procedures, risks, and benefits, with the option to withdraw at any time. The participant's confidentiality and privacy were rigorously protected through data anonymization and secure storage. The intervention, a warm citronella compress, was non-invasive with minimal risk, and the participant's safety was closely monitored throughout the study. The research adhered to the principles of beneficence and non-maleficence, prioritizing the participant's well-being by aiming to alleviate pain while minimizing harm. The participant's autonomy was respected, with all decisions regarding their involvement being voluntary and free from coercion. Ethical approval was granted by

the Ethics Committee of Nahdlatul Ulama University, ensuring that the study met all ethical standards and that the selection process was fair, focusing on potential benefits to the participant.

RESULTS

1. Nursing Assessment

The assessment was carried out on June 10, 2023. Data were obtained from the results of interviews and observations. It was found that Mr. B is 61 years old, male, Muslim, and has lived for nine months at UPTD Griya Wreda Jambangan, Surabaya. Mr. B says pain in the joints, especially in the knees, pain like stabbing often recurs when in the morning, especially in the cold, the client says the pain scale is 4, the client says the pain that is felt comes and goes if the client's pain is difficult to sleep. The client said he had never experienced a severe illness before, the client said he only had a normal cough, and a history of usually severe illness, the client said he had joint pain for the last five months. The client's relationship with his roommates recognizes each other, relates well, and can interact with nurses who are at UPTD Griya Wreda Jambangan Surabaya. On the results of the examination of vital signs, BP = 130/90 mmHg, N = 97 x/min, S = 36.5 °C, RR = 20 x/min.

On physical examination of Mr. B B1 (Breathing) no complaints. Inspection of the thorax, the shape of the chest is symmetrical, right and left, normal, with no lumps, or lesions, palpation: no tenderness, percussion: sonor lung sounds (normal), auscultation: regular vesicular breathing rhythm, so there are no abnormalities. B2 (Blood) no complaints, normal inspection CRT CRT <2 seconds, deafening percussion, auscultation of normal heart sounds. B3 (Brain) no complaints. Normal head shape, no lesions, no lumps, clean and grey hair. The eyes are normal, the conjunctiva is pink, the sclera is white, the pupils are isochoric, the light reflex is present, and there are eye bags. No thyroid enlargement, no jugular vein enlargement. B4 (Bladder) no complaints Mr. B. When urinating independently to the bathroom without the help of other people, the frequency is 5-7x a day, clear yellow, and has a characteristic smell of urine. B5 (Bowel) no complaints, abdominal inspection no lumps and no lesions, palpation no tenderness, percussion tympanic sound, auscultation of bowel sounds 8x/min. B6 (Bone) good upper extremity no complaints, good skin turgor, clean nails, skin starting to look wrinkled, no abnormalities, CRT < 2 seconds lower extremity has pain in the joints, namely at the knees, good skin turgor, clean nails, none Edema, no abnormalities.

2. Data analysis

Subjective data Mr. B said joint pain in the knee, the client said the pain felt worse in the morning, if the pain recurred the patient had difficulty doing activities, the pain had lasted for 5 months, and when it recurred Mr. B says it's hard to sleep. The objective data is that the client looks grimacing while holding his knees, looks restless, looks careful with his movements, BP = 130/90 mmHg, N = 97 x/min, S = 36.5 °C, RR = 20 x/min, P: Pain occurs after work and gets worse when

the weather is cold, Q: the client says the pain is like being stabbed, R: the client says it hurts in the joints, especially in the knee, S: pain scale 4 (moderate), T: intermittent.

3. Nursing diagnoses

Based on data analysis, Mr. B obtained a nursing diagnosis that is, acute pain associated with physiological agents of injury characterized by Mr. B said joint pain in the knee, the client said the pain felt worse in the morning if the pain recurred the patient had difficulty doing activities, the pain had lasted for five months, and when it recurred Mr. B said he had trouble sleeping, the client looked grimacing while holding his knees, looked restless, seemed careful with his movements, BP = 130/90 mmHg, N = 97 x/min, S= 36.5 °C, RR = 20 x/min, Q: Pain occurs after work and gets worse when the weather is cold, Q: the client says the pain is like being stabbed, R: the client says it hurts in the joints, especially in the knee, S: pain scale 4 (moderate), T: intermittent.

4. Nursing Intervention

Preparation of nursing interventions to treat acute pain with non-pharmacological techniques, namely using warm compresses of lemongrass. Lemongrass warm compresses were given according to standard operating procedures (SOP). and in the afternoon, 15-30 minutes., with the goal and the outcome criteria, namely complaints of pain from a scale of 2 (severely increased) to a scale of 5 (decreased), grimace from a scale of 2 (moderately increased) to a scale of 5 (decreased), difficulty sleeping from scale 2 (severely increased) to scale 5 (decreased).

The action plan that was given to Mr. B is based on the SIKI intervention link appointed for the diagnosis of acute pain, one of which is pain level (L.08066) in this case the pain level is non-pharmacological therapy, namely applying warm compresses of lemon grass

5. Nursing Implementation

Nursing implementation is carried out for three days, which is carried out on June 11-13 2023**.** Giving lemongrass warm compress therapy is carried out according to the Indonesian Intervention Standard (SIKI), it is known that applying lemongrass warm compress therapy can treat acute pain, before applying warm compress therapy to clients, researchers will provide information to clients about non-pharmacological therapy with warm lemongrass compresses, starting with by preparing the environment such as creating a comfortable and safe environment for clients as well as time contracts with clients. Giving lemongrass warm compress therapy to clients with Standard Operating Procedures (SOP).

The first meeting was on June 11, 2023, the author asked the client's condition at this time the client said a pain scale of 4, then built a trusting relationship, then conveyed the intent and purpose of the action to do a warm compress of lemongrass, After that positioned sitting on a chair then feet touching the floor, after Then, put the towel and washcloth into a basin containing warm water with lemongrass, then squeeze the towel and washcloth dry, place it on the client's knee for 1-2 minutes then re-wet and repeat up to 5 rinses, repeat these steps until the pain decreases. or it

subsides, after that, tidy up the client tidy up tools, and record the client's response after the warm lemongrass compress is performed.

In the second meeting on June 12, 2023, the author asked about the client's condition at this time the client said a pain scale of 3, then built a trusting relationship, then conveyed the intent and purpose of the action to do a warm compress of lemongrass, after that positioned sitting on a chair then feet touching the floor, after that, put the towel and washcloth into a basin containing warm water with lemongrass, then wring out the towel and washcloth until dry, place it on the client's knee for 1-2 minutes then re-wet and repeat up to 5 rinses, repeat these steps until the pain decreases or subsides, after that, tidy up the client and tidy up the tools, record the client's response after the action of warm compresses of lemongrass.

In the third meeting on June 13, 2023, the author asked about the client's condition at this time the client said pain scale 2, then built a trusting relationship, then conveyed the intent and purpose of the action to do a warm compress of lemongrass, after that positioned sitting on a chair then feet touching the floor, after that, put the towel and washcloth into a basin containing warm water with lemongrass, then wring out the towel and washcloth until dry, place it on the client's knee for 1-2 minutes then re-wet and repeat up to 5 rinses, repeat these steps until the pain decreases or subsides, after that, tidy up the client and tidy up the tools, record the client's response after the action of warm compresses of lemon grass

6. Nursing Evaluation

The first meeting resulted in the client saying his knee still hurts P: Pain arises when walking long distances, Q: the client says the pain is like being stabbed, R: the client says pain in the joints, especially in the knee, S: pain scale 3 (moderate), T: intermittent, the client seems to grimace and be careful with his movements, complaints of pain from a scale of 2 (moderately increased) to a scale of 3 (mild pain), grimacing from a scale of 2 (moderately increased) to a scale of 3 (moderate), restless from a scale 2 (moderately improved) to scale 3 (moderate), difficulty sleeping from scale 2 (moderately improved) to scale 3 (moderate). Vital signs BP= 132/80 mmHg, N= 89x/min, S= 36.5 °C, RR= 19 x/min.

The second meeting showed that the client said his knee still hurts. P: Pain arises when walking long distances. Q: The client says the pain is like being stabbed. R: The client says it hurts in the joints, especially the knee. S: Pain scale 2 (mild pain).), T: intermittent, the client seems to grimace and be careful with his movements, complaints of pain from scale 2 (severely increased) to scale 2 (severely decreased), grimace from scale 2 (moderately increased) to scale 2 (severely decreased), restless from scale 2 (moderately increased) to scale 2 (moderately decreased), difficulty sleeping from scale 2 (moderately increased) to scale 2 (moderately decreased). Vital signs BP= 125/78 mmHg, N= 86x/min, S= 36.5 °C, RR= 20 x/min.

The third meeting showed that the client said his knee was still sore.), T: intermittent, the client does not appear to grimace and be careful with his movements, complaints of pain from scale

2 (severely increased) to scale 1 (decreased), grimace from scale 2 (moderately increased) to scale 1 (decreased), restless from scale 2 (moderately increased) to scale 1 (decreased), difficulty sleeping from scale 2 (moderately increased) to scale 1 (decreased). Vital signs BP= 120/79 mmHg, N= 81x/min, S= 36.5 °C, RR= 20 x/min.

DISCUSSION

Analysis of Acute Pain Nursing Problems

Nursing Assessment and Diagnostics

The results of the study found that Mr B is male and 61 years old, this is in line with research from (Valentina, 2021) that respondents aged 50 years and over have a greater percentage of rheumatoid arthritis. According to researchers, with increasing age causes a person to experience a decrease in bodily functions so they are prone to experiencing disorders in the body, one of which is a decrease in cartilage which functions as a cushion or coating for joint bones.

The main complaint felt by Mr. B is a pain in the joints, this is to the theory of (Ila et al, 2020) that one sign of a decrease in the musculoskeletal system is pain. According to researchers, the pain felt by the client is one of the body's responses to indicate that the body is experiencing a disorder. The pain felt by the client causes the client to be unable to sleep because the client focuses on the pain felt so that the client cannot sleep.

Based on the results of the anamnesis and observations during the assessment, the authors enforced the main nursing diagnosis, namely acute pain associated with physiological agents of injury marked by Mr. B said joint pain in the knee, the client said the pain felt worse in the morning if the pain recurred the patient had difficulty doing activities, the pain had lasted for 5 months, and when it recurred Mr. B said he had trouble sleeping, the client looked grimacing while holding his knees, looked restless, seemed careful with his movements, BP = 130/90 mmHg, N = 97 x/min, S= 36.5 °C, RR = 20 x/min, Q: Pain occurs after work and gets worse when the weather is cold, Q: the client says the pain is like being stabbed, R: the client says it hurts in the joints, especially in the knee, S: pain scale 4 (moderate), T: intermittent.

According to (Yurida, 2020) acute pain occurs because the body has decreased bodily functions, causing pain. According to the researcher on the enforcement of acute pain nursing diagnoses based on the analysis of the data obtained, namely Mr. B said pain in the joints, the objective data obtained was that the client appeared to grimace, the client appeared to be careful with his movements, the client appeared to be holding his knee.

The independent intervention was carried out by giving warm lemongrass compresses for 3 days, twice a day, namely in the morning and the evening. According to the researcher, the intervention given to Mr B had been carried out according to the theory (Valentina, 2020), namely warm compresses of lemongrass can help reduce acute pain in patients with *rheumatoid arthritis* because the essential oil content in lemongrass can reduce pain and improve blood circulation. The technique must be carried

out correctly and by existing standard operating procedures (SOPs). If the technique of giving lemongrass warm compresses is done correctly, the reduction in pain can be by the expected results.

Giving lemongrass warm compresses can be done independently by the client with the help of a nurse. The benefits of warm lemongrass compresses are that they contain anti-microbial and anti-bacterial substances which are useful as anti-infective drugs and contain analgesic compounds that can help relieve pain and joint pain due to *rheumatoid arthritis.*

The results of the evaluation for 3 days showed that before the pain scale was 4 (moderate), grimacing scale 2 (quite increased), anxiety scale 2 (moderately increased), and difficulty sleeping scale 2 (moderately increased) after giving warm compresses of lemon grass, the pain scale was at 1 (mild), grimacing on scale 1 (decreasing), anxiety on scale 1 (decreasing), difficulty sleeping on scale 1 (decreasing) this is in line with research from (Iga et al, 2021) that after giving warm lemon grass compresses to 25 respondents there was a decreased pain from moderate scale (4-6) to mild scale (1-3). According to the researchers, there is an effect of giving warm lemongrass compresses on reducing pain because the active ingredients contained in lemongrass can make the body relax and improve blood circulation so that it can reduce the pain felt by the client.

Giving lemongrass warm compresses has good effectiveness in reducing the *rheumatoid arthritis pain scale* in Mr. B because warm compresses of lemon grass are vasodilating in nature, they can relieve pain by relaxing muscles, increasing blood flow, and relieving pain by eliminating the source of inflammation that causes pain by giving warm compresses on lemongrass. In addition, the lemongrass plant contains an enzyme, namely the cyclooxygenase enzyme which can reduce inflammation which is absorbed through the skin in inflamed/swollen areas in patients with *rheumatoid arthritis* (Yurida, 2020).

According to researchers, the content of lemongrass and the combination of warm compresses can make the body relax and improve blood flow, as well as improve circulation in tissues and improve cell activity which will reduce pain. The warmth of the lemongrass will move to the skin which can make the blood vessels in the body dilate and reduce the pain felt by the client.

Analysis of the Implementation of Lemongrass Warm Compress Planning to Overcome Acute Pain Problems

Intervention on the application of warm lemongrass compresses has been carried out given by the author based on the main complaint, namely pain in the knee, the implementation was carried out for 3 days, carried out 1 day 2 times, namely morning and evening. The action taken is to position the client sitting, then the feet touch the floor, put the towel and washcloth into a basin containing warm water with lemongrass, then squeeze the towel and washcloth until dry, place it on the client's knee for 1-2 minutes then re-wet and repeat until Rinse 5 times, repeat these steps until the pain decreases or subsides, after that, tidy up the client and tidy up the tools, then record the client's response after the action is taken.

The application of warm compresses has many benefits for the body, one of which is that lemongrass contains essential oils that have an analgesic effect on types of pain. The addition of lemongrass to warm compresses can increase pain reduction (Valentina, 2021). According to researchers, the decrease in pain scale is because lemongrass contains essential oils that have chemical properties and pharmacological effects, namely a spicy taste and warm water as an anti-inflammatory, which can relieve pain and improve circulation in areas that have been compressed.

According to the theory from (Ila et al, 2020), warm compresses aim to dilate blood vessels thereby increasing blood circulation to painful parts, and reducing muscle tension thereby reducing pain due to muscle spasms or muscle and joint stiffness. According to researchers, warm compresses can improve blood flow and reduce the pain felt by clients because the heat in the body can reduce pain levels and cause diseased blood vessels to widen so that pain will decrease.

The application of warm lemongrass compresses is one of the non-pharmacological therapies that can be applied to clients with acute *rheumatoid arthritis* pain, the warm feeling felt by the client can relax and improve circulation throughout the body so that the warm feeling reduces tension and creates a feeling of comfort (Anne, 2020). According to the intervention researcher, warm compresses of lemongrass can be done independently by clients, namely by way of warm compresses of lemon grass which can be applied to sick limbs, materials that are easy to obtain, and easy application methods can help clients to reduce the pain they experience.

LIMITATION

This study could be improved by addressing potential limitations more explicitly, such as the small sample size, the absence of a control group, and the short duration of the study. A more detailed exploration of the biochemical mechanisms underlying the effectiveness of citronella compresses would also add depth to the discussion. Additionally, considering the potential placebo effect and its impact on the results would provide a more balanced interpretation of the findings.

CONCLUSION

Obtained after giving a warm lemongrass compress, Mr.'s response. There was a decrease in the pain scale, the pain scale was 4 (moderate pain) after giving a warm compress the pain scale was 1 (mild pain), and the client did not appear to be grimacing, not anxious, and not holding his knees.

Applying warm lemongrass compresses is a non-pharmacological therapy that can be applied to clients with acute rheumatoid arthritis pain. The warm feeling felt by the client can relax and improve blood circulation throughout the body so that the warm feeling reduces tension and creates a feeling of comfort, besides that, lemongrass contains essential oils that have an analgesic effect on types of pain. The addition of lemongrass to a warm compress can increase the reduction in pain.

AUTHOR CONTRIBUTION

Authors' contributions: All the authors contributed equally to the study.

ORCHID

Siti Rohmawati : None.
Chilyatiz Zahroh : None.
Siti Nurjannah : None.
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CONFLICT OF INTEREST

None.

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