

## The Effect of Slow Stroke Back Massage On Intensity of Pain In Elderly With Rheumatic Arthritis

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### ABSTRACT

Elderly who experience rheumatic generally complain of pain which has an impact on decreasing the productivity of life in the elderly.

This study aimed to determine the effect of slow stroke back massage on changes in pain in the elderly with rheumatic arthritis

The research design was a pre experimental design with the One Group Pretest-Posttest Design approach. This research was conducted on 1 - 10 November 2020 with a population of 35 people. The sampling method uses total sampling. The independent variable is slow stroke back massage, while the dependent variable is the change in pain in the elderly with Rheumatic Arthritis. The data collection instrument used the observation sheet and data analysis used the Wilcoxon test with  $\alpha = 0.05$ .

Results showed that of the 35 respondents before being given the Slow Stroke Back Massage, most of them had moderate pain levels, namely 18 respondents (51.4%). After being given a slow stroke back massage, most of them had a mild pain level, namely 19 respondents (54.3%). The Wilcoxon test results show  $p\text{-value} = 0,000 \leq \alpha = 0.05$ , so that  $H_0$  is accepted, meaning that there is an effect of slow stroke back massage on changes in pain in the elderly with Rheumatic Arthritis

Slow stroke back massage therapy only acts as a supportive therapy and does not replace the role of pharmacological therapy. Collaboration with doctors is needed in providing pain relievers or other supportive therapies.

**Keywords:** Slow Stroke Back Massage, Pain intensity Rheumatic Arthritis, Elderly

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**BACKGROUND**

Aging or getting old is a condition that occurs in human life. The aging process is a lifelong process, not only starting from a certain time, but starting from the beginning of the life process. Entering old age means experiencing a setback, for example a physical setback characterized by sagging skin, gray hair, tooth loss, less clear hearing, worsening vision, slow movement, and disproportionate body figure (Nugroho, 2008).

One of the health problems experienced by the elderly is rheumatic. According to Chaerudin (2006) Rheumatic arthritis is a joint disease and joint connective tissue that is systemic, progressive, and tends to be chronic. People who experience rheumatic pain generally complain of pain where the pain in the elderly makes the elderly afraid to do activities so that it has an impact on decreasing the productivity of the elderly's life.

The incidence of Rheumatic Arthritis in 2016 reported by the World Health Organization or WHO is 20% of the world's population, of which 20% are those who are elderly. The prevalence of Rheumatic Arthritis is higher for women, around 13.4% compared to men, around 10, 3%. Based on the 2018 BPS survey, the number of elderly people in Indonesia is around 24.49 million (9.27%). If you look globally, Indonesia contributes significantly to the growth of the elderly in the world. It is estimated that Rheumatic sufferers in the world have reached 335 million people. This figure will continue to increase and by 2025 it is estimated that more than 25% will experience paralysis due to bone damage and joint disease. In a radiographic survey of women under 40 years, only 2% suffer from Rheumatic Arthritis, but at the age of 45-60 years the incidence rate is 30% while people over 60 years the incidence rate is more than 65%. (Suyono, 2001).

The results of a preliminary study conducted by interviewing 10 people who experienced Rheumatic Arthritis in the elderly community center "Angrek", Dusun Sembung, Blitaran Village, Sukomoro District, Nganjuk Regency, all the elderly said they were in pain. The author also asked questions about how to overcome it, all of them answered only by taking medication, they also said they had to always take medication, otherwise the pain would appear again. The author also asked what actions the patient took to reduce pain apart from using drugs, 5 people answered by moving their legs while massaging the sore body parts, 5 people said using warm compresses. And of the 10 elderly people interviewed, all the elderly said they had never known about the slow stroke back massage. Rheumatic Arthritis is a chronic inflammation that is most often found in joints. Pain is a common symptom of this disease. Rheumatic arthritis in the elderly is due to a lack of synovial fluid production, so it can cause joint pain. Most people think that this disease is not a problem so that the treatment that is given is not optimal. Because the handling is not optimal, this disease can cause inflammation, stiffness, swelling, and pain in the joints, muscles, tendons, ligaments, and bones (WHO, 2015).

Pain management can be done pharmacologically and non pharmacologically. Cutaneous stimulation, distraction, relaxation, guided imagination and hypnosis are examples of nonpharmacological interventions frequently used in nursing to manage pain. In Rheumatic Arthritis, pain management is generally carried out with cutaneous stimulation, hot / cold therapy, exercise / physical activity and distraction (Reeves, 1999; Koopman, 1997). When individuals perceive touch as a stimulus to relax. Then the relaxation response will emerge. Relaxation is very important to increase comfort and free oneself from fear and stress due to illness and endless pain (Potter & Perry, 2005). One technique of giving massage is the slow stroke back massage. Vasodilation of blood vessels will increase blood circulation in the area being rubbed so that cell activity increases and will reduce pain and support the wound healing process (Kusyati E, 2006; Stevens, 1999).

The sensation of warmth will also increase the feeling of comfort (Reeves, 1999). Other therapeutic values of back massage include reducing muscle tension and increasing physical and psychological relaxation (Kusyati E, 2006). Several studies have also identified the benefits of slow stroke back massage. One of them is a significant reduction in pain and anxiety intensity as well as positive changes in heart rate and blood pressure, which indicate relaxation in elderly patients with stroke (Mok, E et al 2004).

## METHODS

The research design used a pre-experiment with the One Group Pre-Post Test Design approach. The population used by all the elderly in the "Anggrek" Blitaran Posyandu, Sukomoro District is 35 people. A sample of 35 respondents with total sampling. The independent variable in this study is slow stroke back massage (SOP) and the dependent variable is the intensity of pain in the elderly with Rheumatic Arthritis (Numerical Pain Scale). Measure pain intensity using a numerical pain scale (first day). Do a 5 minute slow stroke back massage for 7 days. On the eighth day measuring pain intensity using a numerical pain scale. The analysis used the Wilcoxon Signed Rank test with  $\alpha = 0.05$

## RESULTS

### 1. Characteristics of Respondents

Table 1. Characteristics of respondents based on gender, age, educational history, occupation

Characteristics of respondents	Frequency ( <i>f</i> )	Percentage (%)
<b>Gender</b>		
Man	8	22,9
Women	27	77,1
<b>Age</b>		
50 – 59 tahun	9	25,7
60 – 69 tahun	13	37,1
70 – 79 tahun	12	34,3
≥ 80 tahun	1	2,9
<b>Educational background</b>		
No school	3	8,6
Primary school	8	22,9
Junior high school	17	48,6
Secondary school and above	6	17,1
College	1	2,9
<b>Profession</b>		
Does not work	7	20
Employees	2	5,7
entrepreneur	9	25,7
Farmer	17	48,6

### 2. Effect of Slow Stroke Back Massage on Changes in Pain Levels

Table 2. Cross Tabulation of Pain Intensity Before and After Slow Stroke Back Massage in Elderly with Rheumatic Arthritis

No	Pain Intensity	Pre Test		Post Test	
		Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
1	No Pain	2	5,7	7	20,0
2	Mild Pain	10	28,6	19	54,3
3	Moderate Pain	18	51,4	9	25,7
4	Severe Pain	5	14,3	0	0,0
5	Very Severe Pain	0	0,0	0	0,0
Total		35	100,0	35	100,0

$p\text{-value} = 0,000 \leq \alpha = 0,05$

## DISCUSSION

Based on table 2, it is known that before being given a slow stroke back massage, most of them had moderate pain intensity, namely 18 respondents (51.4%). Furthermore, after being given a Slow Stroke Back Massage, most of them had mild pain intensity, namely 19 respondents (54.3%). Thus, in general, there has been a change in pain between before (pre-test) and after (post-test) being given a Slow Stroke Back Massage in the elderly in the form of a reduction in rheumatic arthritis pain. The Wilcoxon test results show that the  $p\text{-value} = 0,000 \leq \alpha = 0.05$ , so that  $H_a$  is accepted, meaning that there is an effect of slow stroke back massage on changes in pain in the elderly with Rheumatic Arthritis.

According to Casanelia & Stelfox (2009), Slow Stroke Back Massage is a nursing intervention that is given by applying slow, firm, rhythmic strokes with both hands covering an area of 5 cm outside the spine starting from the head to the sacrum area. The benefits of Slow Stroke Back Massage according to Kusyati (2006) is to produce vasodilation of blood vessels which will increase blood circulation to the area being rubbed so that cell activity increases and will reduce pain and support the wound healing process, reduce muscle tension and increase physical and psychological relaxation. According to Mok, et.al. (2004), one of the results of the Slow Stroke Back Massage that can be felt immediately is a significant reduction in the level of pain in elderly patients with pain complaints.

The results of this study support the results of previous research conducted by Priscilla (2017) which states that giving slow-stroke back messages has succeeded in reducing the level of dysmenorrhea pain in young women. Likewise, the research results of Mawarni (2018) stated that there was an effect of providing a slow stroke back massage stimulus on reducing the intensity of rheumatic pain in the elderly. In the case of this study studied was rheumatic arthritis pain and it was found that after the elderly were given a slow stroke back massage for about 10 minutes, there was a decrease in the average level of pain. Respondents who initially predominantly experienced severe and moderate pain levels decreased to mild and non-painful levels.

However, slow stroke back massage therapy is only a supportive therapy, it does not replace the role of pharmacological therapy. If the provision of slow stroke back massage therapy to the elderly does not result in reducing rheumatic arthritis pain, it is necessary to collaborate with doctors in providing pain relievers or other supporting therapies that are more effective. Dietary pattern must also be considered because it is one of the triggers for the occurrence of Rheumatoid arthritis. Where a healthy diet should start by making small changes to the food we choose, also reducing foods such as legume products, namely peanut milk, green beans, animal organs such as intestines, liver, abundance, lungs, and so on.

### CONCLUSION

Slow stroke back massage has an effect on pain intensity in the elderly with Rheumatic Arthritis. The Wilcoxon Signed Rank test results show that the  $p\text{-value} = 0.000 \leq \alpha = 0.05$ .

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