



Nonpharmacological management on reducing rheumatoid arthritis pain in the elderly: studies in social rehabilitation services unit of elderly in Garut West Java

Neng Husna Saida¹; Setiawan²; Iwan Shalahuddin^{3*)}

^{1, 2, 3*} *University of Padjadjaran Bandung*

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**) corresponding author*

*Lecturer of Nursing Faculty
University of Padjadjaran Bandung
Jl. Proklamasi No. 5 Tarogong Kabupaten
Garut Jawa Barat 44151*

Email: shalahuddin@unpad.ac.id

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ABSTRACT

The elderly often undergo pain, the nature and level of pain varies from mild to severe. Handling or non-pharmacological treatment at this time is quite varied, ranging from simple methods such as distraction and relaxation to warm compresses. This research aims to determine the picture of non-pharmacological treatment in reducing the pain of rheumatoid arthritis in the elderly. The method used is descriptive quantitative. Samples were obtained with a total sampling of 30 respondents used as a research sample to determine the description of nonpharmacological treatment in reducing atheistic rheumatoid pain in the elderly. The results of this research illustrate that the elderly who experience arthritis rheumatoid pain are mild pain levels as much as 2 respondents (6.7%), moderate pain 16 respondents (53.3%), severe pain as many as 12 respondents (40.0%). The most non-pharmacological treatment efforts are doing Distraction, Masasse, Physical activity, and compressing as many as 18 people (60.0%). Conclusion of nonpharmacological treatment to reduce the pain of rheumatoid arthritis in the elderly is by way of distraction, relaxation, physical activity, masasse and compresses. The caretaker is expected to pay more attention to the handling that will be used to reduce pain.

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INTRODUCTION

Old age is an age group that is respected according to the knowledge and experience they experience. At this age group is a human resource, potential and useful for the development of life in the community but naturally the group in this group experiences physical, biological, mental or social setbacks. In the elderly, the course of the disease is often found and has its own characteristics that are chronic, more severe and what is often found is heart and blood vessel disease, cancer and other degenerative diseases as a result of the aging process they experience (Riskesdas, 2013).

Based on population projection data in 2017, there are 23.66 million people (9.03%) of elderly people in Indonesia. The prediction of the number of elderly population that will come in 2020 is estimated at (27.08 million), in 2025 (33.69 million), in 2030 (40.95 million) and in 2035 (48.19 million). (RI Ministry of Health, 2017).

The elderly population in West Java in 2017 is 4.16 million people, while in 2015 the elderly population is 3.77 million people, and it is estimated that in 2021 the elderly population in West Java is 5.07 million people or 10.04% of the total population in West Java. So this condition shows that West Java has entered the aging population (Ministry of Health Republic of Indonesia, 2017).

Based on data obtained at the Garut Elderly Social Rehabilitation Institution, in August 2018 the prevalence of the elderly in the Garut Elderly Social Rehabilitation Institution was 75 elderly people consisting of 43 elderly women and 32 men, with the number of elderly people suffering from arthritis. Rheumatoid which is 30 people.

Physical changes in the elderly one of which is musculoskeletal disorders where the musculature in the elderly with the age of around 40 years begins to decline, and begins to decline rapidly when the age of 60 years. Loss of muscle strength can be caused by

lifestyle and decreased use of the musculoskeletal system and results in the occurrence of Rheumatoid Arthritis. Musculoskeletal disorders that often occur in the elderly one of which is rheumatoid arthritis (Santosa & et al., 2016).

Rheumatoid Arthritis is a common autoimmune disease and has a worldwide prevalence with a rate of 0.5e1%, this condition can be debilitating and painful in the joints and can cause patients to lose function and mobilize the substance (Cho et al., 2018).

Rheumatoid Arthritis (RA) is a systemic inflammatory state that results in synovitis, which is inflammation of the synovial membrane (the tissue that lines the joints also protects the joint) and causes pain. Pain disorders in the elderly can occur due to rheumatism, and the need for treatment, both pharmacologically and non-pharmacologically (Hewlett et al, 2011).

The incidence of rheumatoid arthritis reached 335 million people is quite high and large both in developed and developing countries. In 2025 the estimated incidence will increase and more than 25% will experience paralysis due to damage to the bones and joints. According to the World Health Organization (WHO), the incidence of rheumatism in 2012 reached 20% of the world's population who have been affected by rheumatism, where 5-10% are those with 5-20 years of age and 20% are those with 55 years of age (Manzahri, 2015) .

Pain is a subjective sensory and unpleasant emotional experience associated with damage to the tissue that is actual, potential and can be felt when the events occur damage (Ardiazis D, 2016). Treatment of rheumatism can be done by prioritizing pain control, minimizing joint damage, and increasing quality of life. Pharmacological therapy can be used in the treatment of rheumatism such as using analgesics, and corticosteroids (Hikmatyar G & Larasati TA, 2017).

Non-pharmacological therapy can be done with a touch of therapeutic, relaxation, distraction, and warm water therapy. Non-pharmacological management has advantages and disadvantages although the benefits are the same as pain relievers, various attempts are made to reduce the pain of rheumatoid arthritis, both pharmacologically and nonpharmacologically (Cunningham NR & Kashikar-Zuck S, 2013). Pharmacological management is indeed more effective than nonpharmacology, but pharmacological methods are more expensive and potentially have adverse effects. While non-pharmacological methods are cheap, simple, avoid polypharmacy and without adverse effects. Nonpharmacological methods can also control the pain (Phonna CD, 2014).

The treatment of rheumatoid arthritis focuses on how to control pain, reduce joint damage and quality of life of patients. Handling itself can include pharmacological therapies (drugs) such as analgesics and non-pharmacological measures such as therapeutic touch, deep breathing, distraction, massage, physical activity and warm compress therapy (Satriana V & Dewi E, 2016).

Another research which states that deep breathing relaxation techniques can be used to reduce the level of pain in the elderly who have rheumatoid arthritis, from the results of the research stated that of the 32 elderly studied almost half of the respondents experienced mild pain levels as many as 20 elderly (62.5%) after it was done deep breathing relaxation techniques (Armi Y & Susanti E, 2015).

Researchers conducted a preliminary research that was conducted at the Garut District Elderly Rehabilitation Service Unit, on December 13, 2018 after an interview with one of the health workers at the Garut Elderly Rehabilitation Social Home, data on the number of elderly people in August totaling 75 elderly, from the frequency of illness which mostly affects the elderly, 30 people suffer from rheumatic diseases.

When conducting a preliminary research, researchers also conducted interviews with several elderly people who have rheumatic problems and asked for efforts to manage pain differently from one elderly to another. The interview results of 5 elderly people out of 10 said that efforts to manage pain experienced by always taking anti-pain medication given by the officers and never made efforts that were non-pharmacological. Nurses in the old social rehabilitation service unit in Garut Regency said that there was no non-pharmacological treatment by nurses for the elderly.

METHOD

The research method used is descriptive quantitative. The variable in this research is the handling of non-pharmacology in dealing with atheistic rheumatoid pain in the elderly in the social rehabilitation service unit of the elderly in arrowroot. The number of respondents in this research was 30 elderly. Using total sampling techniques.

In this research, the research instrument used was a statement questionnaire sheet contained in the questionnaire consisting of demographic data in the form: name / initial, age, education, parity, age, and pain scale using NRS (Numeric Rating Scale) (Lucia Evi I, 2008).

The research instrument used consisted of 18 questions regarding non-pharmacological actions that were made by themselves with reference to the theory put forward by Zakiyah (2015). In this research instrument the validity test was conducted on 30 respondents with a total of 18 questions using the Guttman scale. The results of the validity test with the lowest score of 0.403 and the highest score of 0.817. The value of r count is 0.361 with an error rate of 5%. Reliable test results using Cronbach alpha is 0.756.

Data analysis uses univariate to describe the handling done by the elderly. Presenting a group of data in the form of a percentage of the frequency distribution regarding non-

pharmacological treatment in reducing rheumatoid arthritis pain seen from items in each domain, the percentage is calculated using the formula of the number of respondents according to the category divided by the total number of respondents then multiplied by 100% until the result of the percentage "Doing" and "Not doing" from the item.

RESULTS AND DISCUSSION

The results of this research will explain the results of the research and discussion of the picture of nonpharmacological treatment in dealing with atheistic rheumatoid pain in the elderly in the arrowroot elderly rehabilitation service unit. The results of the research are presented in tabular form that illustrates the frequency distribution.

Table 1
Frequency Distribution Based on Respondent Characteristics

Characteristics	Frequency(f)	Percentage (%)
Age		
60-74	21	70.0
75-90	9	30.0
Gender		
Male	11	36.7
Female	19	63.3
Education		
SD	19	63.3
SLTP	8	26.7
SLTA	3	10.0
Total	30	100

Based on table 1 it is known that the characteristics of the respondents who were sampled in this research by sex were mostly female by 19 respondents (63.3%), the average age of almost all respondents aged

60-74 years was 21 (70.0%), education level the majority of respondents had an elementary school education of 19 respondents (63.3%).

Table 2
Frequency Distribution of Rheumatoid Arthritis Pain Degrees in the Elderly in Garut General Hospital Service Unit

Pain Degrees	Frequency (f)	Percentage (%)
Mild	2	6.7
Moderate	16	53.3
Severe	12	40.0
Total	30	100

Based on the table 2 it can be seen that the results of the research of the respondents who became the sample of this research, the majority of respondents had moderate pain

degrees as many as 16 respondents (53.3%) and almost half of the respondents were in severe pain degrees as many as 12 respondents (40.0%).

Table 3
Frequency Distribution of Non-pharmacological Arthritis Rheumatoid Pain Management

Pain Management	Frequency (f)	Percentage (%)
Relaxation		
Do not	15	50.0
Do	15	50.0
Distraction		
Do not	12	40.0
Do	18	60.0
Masasse		
Do not	12	40.0
Do	18	60.0
Physical Activity		
Do not	12	40.0
Do	18	60.0
Compress		
Do not	12	40.0
Do	18	60.0
Total	30	100

Based on the table 3 it can be seen that the results of the research of the respondents who became the sample of this research, from handling using relaxation some of the respondents did it as many as 15 respondents (50.0%) handling distraction most of the respondents did as many as 18 respondents (60.0%) almost half of the respondents did

not doing as many as 12 respondents (40.0%), handling with masasse most of the respondents do it as many as 18 respondents (60.0%) physical activity most of the respondents do it as much as 18 respondents (60.0%) and handling compresses themselves most of the respondents do it as many as 18 people (60.0%).

Table 4
Frequency distribution of efforts to manage rheumatoid arthritis with rheumatoid arthritis pain scale

Efforts to manage	Mild pain 1-4		Mrate pain 5-6		Severe Pain 7-10	
	f	%	f	%	f	%
Relaxation	0	0	9	60.0	6	40.0
Distraction	2	11.1	6	33.3	10	55.6
Massase	0	0	12	66.7	6	33.3
Phycal Activy	2	11.1	11	61.1	5	27.8
Compress	1	5.6	12	66.7	5	27.8

Description of efforts to manage arthritis pain with pain scale Based on table 4. the frequency distribution of efforts to treat atheith rheumatoid pain that the elderly who experienced mild pain a small part made efforts to compress by 1 (5.6%), moderate pain some respondents made an effort using massases and compresses as many as 12 (66.7%), severe pain most of the respondents made an effort to treat with distraction that is 10 (55.6%).

According to the results of the research, the handling done by the elderly in the Garut General Hospital service unit that as many as 15 respondents relax, 18 respondents distract, 18 respondents do masasse like smearing with balm, 18 respondents do physical activity, and 18 respondents do compress.

Most respondents made efforts to manage pain by using distraction techniques by diverting attention by listening to music and watching TV as many as 18 respondents.

This is in accordance with research conducted on the elderly in nursing homes in East Surabaya that before performing keroncong music therapy there are 14 elderly who experience moderate pain and 3 elderly experience severe pain and after doing keroncong music therapy there are 11 elderly people experiencing mild pain and 6 elderly people experiencing no pain, then keroncong music therapy can influence the reduction of rheumatic pain (Nasrullah et al, 2016).

The results of other studies state that those who listen to music have less pain compared to those who sit with and don't listen to music (R McCaffrey et al, 2003).

According to the results of research that supports the research by stating that distraction is a technique of switching from the focus of attention to pain to another stimulus. Distraction can reduce pain, reduce pain perception by stimulating the descending system resulting in less pain stimulation transmitted to the brain (Zakiyah A, 2015).

Deep-breathing relaxation techniques can calm the mind and body and can stretch muscles that are aching due to rheumatoid arthritis pain without using painkillers (Dyas AP, 2018).

The results of this research indicate that the handling done by the elderly in reducing the pain of rheumatoid arthritis by means of relaxation by 15 respondents. In accordance with the results of previous studies which stated that before breathing relaxation techniques were performed in the average respondents experienced pain 4.94, median 5 and standard deviation of 1,056 and after breathing relaxation in showing that the pain scale on 18 respondents 100% showed a decrease in pain, on average the pain drops by 1.33, the median is 1 and the standard deviation is 0.485. and it can be concluded that deep breathing relaxation techniques are effective for reducing pain in rheumatoid

arthritis patients (Sartika DD & Widastra NM, 2009).

Maintaining and improving the functional status of the elderly can be done such as preventive and promotive actions in the form of physical exercise to improve fitness, the elderly with rheumatism can be improved functional status by reducing pain using gestures such as rheumatism exercises (Saifudin DM, 2017).

The results of this research note that 60.0% of the elderly do physical activity such as gymnastics and 40.0% of the elderly do not do physical activity. These results indicate that the majority of respondents perform physical activities such as gymnastics to reduce pain.

Other studies conducted on the effect of rheumatic exercises on the reduction of rheumatic pain in the elderly. This research shows that before doing gymnastics the elderly who experienced moderate pain were 13 respondents (81.25%) and 3 respondents (18.75%) experienced severe pain. After doing rheumatic exercises respondents who experienced moderate pain were 12 respondents (75%) and severe pain as many as 4 respondents (25%) (Afnuhazi R, 2018).

Pain reduction that occurs is influenced by the response of respondents who are different when performed rheumatic exercises, pain reduction is also influenced by several factors, namely a person's experience of pain and how to overcome it (Andriani M, 2016). Based on the results of research that says that exercise and participation in regular physical activity are generally recommended for adults with rheumatic diseases and musculoskeletal pain. The American College of Rheumatology and the American Pain Society recommend physical exercise to reduce pain (Sembiring RI, 2017).

Warm compresses, heat energy that is lost or enters the body through the skin in four ways conduction, radiation convection and evaporation can reduce pain because with a warm compress will expedite blood

circulation and reduce muscle tension so that it will reduce pain (Nauli Rahmawati, Intan, 2018). The results of this research indicate that some respondents compressed 18 respondents (60.0%).

Research conducted by Doliarnido, et al (2018) states that before warm compresses are performed, the average respondent experiences pain 5.5, median 5, and standard deviation of 1.505, after applying warm compresses the average respondent experiences pain 3.67, median 3 and standard deviation 1,029.

From these data shows that after a warm compress was done the respondents experienced a decrease in pain scale. Andriani (2016), before doing warm compresses, most of the elderly experienced arthritis rheumatoid pain with 4-6 pain intensity as much as 85%, and after warm compresses the average value of pain intensity was 2.95 (mild pain) and the elderly expressed more and feel the level of intervals 1-3 (mild), from which it can be interpreted after a warm compress the elderly experience mild pain compared to moderate pain.

The role of the nurse as the provider of nursing care must be given more attention and optimized. After doing this research, nurses and institutions are also expected to be able to provide nursing non-pharmacological treatments in addition to pharmacology. The things that can be done by nurses or institutions such as proper relaxation training, proper distraction, correct masasse training, conducting guidance in carrying out physical activities correctly

It is expected that nurses and institutions are able to provide direction and appropriate health education in pain management in addition to using pharmacology, it is necessary to have activities or maximize activities so that the elderly can handle pain as recommended by nurses and institutions.

CONCLUSIONS AND SUGGESTIONS

Based on the results of research conducted on the elderly in the Garut General Hospital Service Unit it can be concluded that the majority of elderly people experience moderate pain as much as 16 (53.3%), almost half of the elderly experience mild pain as many as 12 (40.0%) and a small proportion of respondents experience severe pain 2 (6.7%).

The handling efforts that are often done by the elderly are handling nonpharmacology with relaxation techniques as much as 15 (50.0%), which distracts as many as 18 (60.0%), Massase 18 (60.0%), physical activity as much as 18 (60.0%) and those that do the handling with compresses of 18 (60%).

Treatment based on the pain scale, elderly with mild pain scale 1-4 can reduce pain by handling Distraction and Physical Activity as much (11.1%), elderly with moderate pain scale 5-6 as much as using Massase and compresses in reducing pain as much (66.7%) , and the elderly with severe pain 7-10 by using distraction as much (55.6%).

It is expected that the elderly who do their own handling to deal with pain in a non-pharmacological manner can continue to do so and get more education from nurses or institutions.

It is hoped that nurses will be able to improve and increase education on efforts to manage rheumatoid pain in the elderly, and it is hoped that nurses can provide education on non-pharmacological pain management appropriately, through training in how to masasse to reduce arthritis rheumatoid pain, guidance on how to perform distraction and relaxation techniques that are appropriate. Correct and Note that the elderly always follow rheumatic exercises to reduce the pain of rheumatoid arthritis.

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