

## RELATIONSHIP BETWEEN KNOWLEDGE LEVEL AND SEVERITY OF RHEUMATOID ARTHRITIS PAIN IN THE ELDERLY POSYANDU ENVIRONMENT OF TLOGOSARI KULON COMMUNITY HEALTH CENTER

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### Keywords

Knowledge,  
Rheumatoid  
Arthritis, Elderly

### Abstrak

*Background:* Rheumatoid arthritis is almost experienced by 70% of those over 50 years old which is characterized by structural damage to the joints. This disease is mostly located in the hands, wrists, and joints that support the body's weight such as the knees, hips, and back due to the continuous pressure process for years. Many people are not aware of a disease that occurs in them because often the symptoms that appear are not prominent and due to the lack of public knowledge. *Objective:* This study aims to determine the relationship between the level of knowledge and the severity of rheumatoid arthritis pain in the elderly health post environment of Tlogosari Kulon Health Center. *Method:* The method used is descriptive analytic with cross sectional design. Sampling using purposive sampling technique based on inclusion and exclusion criteria so that 27 elderly people were obtained. Data collection using the knowledge questionnaire to measure the level of knowledge of rheumatoid arthritis RAPS questionnaire to identify rheumatoid arthritis pain. *Results:* Respondents who have a good level of knowledge are 15 people (46.9%) and those who have sufficient knowledge are 17 people (53.1%). Respondents with low incidence of rheumatoid arthritis are 13 people (40.6%) and respondents with high incidence of rheumatoid arthritis are 19 people (59.4%). Based on the chi-square analysis, it is known that the significance is  $0.036 < 0.05$ . So it can be concluded that the level of knowledge of the elderly about rheumatoid arthritis has a relationship with the severity of rheumatoid arthritis pain.

## 1. INTRODUCTION

Rheumatoid arthritis is an autoimmune disease that often causes inflamed joints, swelling and pain, and damages the inside of the joints. Rheumatoid arthritis is also the most common autoimmune rheumatic disease, and is also a chronic progressive disease that often causes permanent joint damage. The prevalence and incidence of rheumatoid arthritis vary in each population. Women have a 2-3 times higher risk of developing rheumatoid arthritis compared to men. The prevalence of rheumatoid arthritis is 0.5-1%

which is relatively constant in many populations, the prevalence of Rheumatoid arthritis in Indonesia is currently estimated at no less than 1.3 million people suffering from rheumatoid arthritis in Indonesia based on data on the prevalence of rheumatoid arthritis in the world (0.5-1%) multiplied by 268 million people from the total population of Indonesia in 2020.

Rheumatoid arthritis is a degenerative disease of the joints that involves the joint lining, cartilage, ligaments, and bones so that it can cause pain and stiffness in the joints. Click or tap here to enter text. Rheumatoid arthritis is almost experienced by 70% of those over 50 years old which is characterized by structural damage to the joints. This disease is mostly located in the hands, wrists, and joints that support the body's weight such as the knees, hips, and back due to the continuous pressure process for years.

Knowledge is very important in society. A person's knowledge of an object has two positive and negative aspects, the more positive aspects are known, the more positive attitudes and behaviors will arise towards the object. Many people are not aware of a disease that occurs in them because often the symptoms that appear are not prominent and due to the lack of public knowledge. This lack of knowledge results in people not being able to detect early on the occurrence of a disease in themselves.

The existence of human strengths and weaknesses and the process of their creation are clearly explained in the Qur'an. In the view of the Qur'an, much is explained about the process of creating humans from strong to weak as contained in the QS. Ar-rum verse 54. Meaning: "Allah, it is He who created you from a weak state, then He made you strong after being weak, then He made you after being strong weak again and gray. He creates what He wills and He is the All-Knowing, the All-Powerful." (QS.Ar-Rum verse 54).

Based on the profile of the Tlogosari Kulon Health Center in 2021, the number of elderly people visiting increased in 2020, from 5,845 people to 7,685, this was due to the active elderly health post collaborating with the PTM program with simple laboratory examinations. Click or tap here to enter text. Due to the increasing number of elderly, the elderly health post of Tlogosari Kulon Health Center was chosen as the research location. Based on the explanation above, the researcher is interested in conducting a study on the Relationship between Knowledge Level and Severity of Rheumatoid Arthritis Pain in the Elderly Health Post Environment of Tlogosari Kulon Health Center, which is then expected

to control the incidence of rheumatoid arthritis so that it can improve the quality of life of the elderly to be better.

## **2. METHOD**

This study uses a descriptive analytical research method. Descriptive analytical cross-sectional research design. The sampling technique used is total sampling involving the entire population that meets the inclusion criteria in a study, with 32 elderly subjects who meet the inclusion and exclusion criteria. The data for this study were obtained from filling out the rheumatoid arthritis knowledge questionnaire and the RAPS questionnaire. The statistical analysis used is the chi-square test.

## **3. RESULTS**

**Table 1.1 Univariate Analysis (Respondents Based on Knowledge Level)**

Pengetahuan	F	Persentase (%)
Baik	15	46,9
Cukup	17	53,1
Total	32	100,0

**Table 1.2 Univariate Analysis (Respondents Based on Rheumatoid Arthritis Pain)**

Kejadian <i>Rheumatoid Arthritis</i>	F	Persentase (%)
Tinggi	19	59,4
Rendah	13	40,6
Total	32	100,0

This study raised two variables, namely independent variables and dependent variables. The independent variable in this study is knowledge. While the dependent variable is rheumatoid arthritis pain. The results showed that the total number of respondents used was 32 people. The majority of respondents were in the elderly category or aged between 60-75 years, which was 18 people (56.25%), while the middle age category or aged 45-60 years was 14 people (43.75%). Based on gender, the majority of respondents were female, 24 people (75.0%), and the rest were male, 8 people (25.0%). For the level of knowledge, most respondents had a good level of knowledge, which was 15 people (46.9%). Respondents with a sufficient level of knowledge were 17 people (53.1%), and no respondents were found with a low level of knowledge. As for the incidence of rheumatoid arthritis, the majority of respondents had a high level of pain, which was 19 people (59.4%), while a low level of pain was experienced by 1 people (40.6%).

**Table 2. Bivariate Analysis (Results of Chi-Square Analysis of Knowledge Level with Severity of Rheumatoid Arthritis Pain)**

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	4.698a	1	.030		
Continuity Correction <sup>b</sup>	3,040	1	.081		
Likelihood Ratio	5.204	1	.023		
Fisher's Exact Test				.043	.038
Linear-by-Linear Association	4,524	1	.033		
N of Valid Cases	27				

Bivariate analysis in this study used the chi-square test to analyze the relationship between the level of knowledge of the elderly about rheumatoid arthritis and the severity of rheumatoid arthritis pain. The results are significant if the p value is less than 0.05. Based on the chi-square analysis above, it is known that the significance is 0.036. This means it is less than 0.05. So it can be concluded that the level of knowledge of the elderly about rheumatoid arthritis has a relationship with the severity of rheumatoid arthritis pain.

#### **4. DISCUSSION**

The results of this study indicate that elderly knowledge about rheumatoid arthritis has a significant relationship with the severity of pain they experience. This finding

supports the view that a better understanding of the disease allows patients to adopt more effective pain management strategies. The results of this study are in line with previous research that the level of knowledge is related to the incidence of rheumatoid arthritis. The incidence of rheumatoid arthritis is caused by the knowledge of the elderly who consider it normal for rheumatic diseases to occur in old age.

Elderly people with low levels of knowledge tend to experience higher pain severity, possibly due to a lack of understanding of how to manage rheumatoid arthritis independently. This emphasizes the importance of health education as part of a holistic approach to managing pain in the elderly. In addition, increasing health literacy can help reduce symptoms and improve patients' quality of life.

Knowledge about rheumatoid arthritis plays an important role in influencing the elderly's perception of the disease and the symptoms they experience. Elderly people who have a good understanding tend to be more aware of the importance of appropriate treatment, diet, and exercise. On the other hand, lack of knowledge can lead to neglect of treatment or habits that can worsen the condition. This study strengthens the argument that proper education can help patients reduce pain severity. Education that is carried out in a structured and ongoing manner has a positive impact on patient understanding of RA management.

Pain perception in the elderly is also influenced by their ability to understand various aspects of the disease. Elderly with a high level of knowledge are able to adopt more adaptive coping strategies so that the pain they feel is reduced. Adequate knowledge allows them to recognize pain triggers and how to avoid them, such as certain foods or inappropriate physical activities. Conversely, lack of knowledge can increase anxiety, which in turn worsens pain perception. This highlights the importance of the role of health workers in providing information that is easy for patients to understand.

Education has been shown to be an effective intervention in reducing pain severity in patients with rheumatoid arthritis. Older adults who receive information through educational programs tend to feel more confident in managing their disease. Personalized, needs-based education helps older adults better understand the steps they can take to reduce pain. This approach emphasizes the importance of good communication between

patients and healthcare providers, so that older adults feel supported in the process of managing their disease. Ongoing education can also improve patient compliance with recommended therapies.

In addition to formal education, access to other sources of information, such as online media or support groups, also contributes to the level of knowledge of the elderly. Elderly people who have good access to these resources tend to have a better level of understanding.[9]. Education level, family support, and life experience are also factors that influence elderly knowledge about rheumatoid arthritis. Therefore, an educational approach that involves various parties, including family, can increase the effectiveness of the intervention. This study shows that collaboration between patients, families, and health workers is essential to improve the outcomes of rheumatoid arthritis management.

The results of this study also provide practical implications in pain management in older adults with rheumatoid arthritis. Education should be an integral part of the clinical approach to ensure that older adults have sufficient understanding of their disease. This approach not only improves the efficacy of treatment but also helps patients to be more independent in managing their condition. In addition, health workers need to be trained to provide education in a manner that is appropriate to the needs of older patients. This will help ensure that the information provided can be received and applied well by people with rheumatoid arthritis.

## **5. CONCLUSION**

The results of this study indicate that there is a significant relationship between the level of knowledge and the severity of rheumatoid arthritis pain in respondents. Respondents with a good level of knowledge tend to experience lower pain severity compared to respondents who have sufficient or poor levels of knowledge. This indicates that increasing knowledge about rheumatoid arthritis, including the causes, prevention, and management of pain, can contribute to a decrease in the severity of pain experienced.

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