

THE RELATION BETWEEN DIET, ATTITUDE AND LEVEL OF KNOWLEDGE OF THE ELDERLY WITH LEVELS OF URIC ACID IN THE BLOOD AT SUKARAYA HEALTH CENTER WORK AREA

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ABSTRACT

The condition that can cause swelling, burning, and unbearable pain in the joints is called gout. Diet is an effort to regulate the amount and type of food with health information about nutritional status, prevention and cure of disease. In general, the purpose of the study is to determine the relationship between diet, attitudes and knowledge levels of the elderly with Levels of uric acid in the blood at Sukaraya Health Center Work area in 2024. This study used a quantitative correlational method with a cross-sectional approach, a total of 50 samples. The results of the study were obtained from questionnaires and observation sheets, the research will be written in a frequency distribution table and the results will be analyzed. Within this research obtained using the test of chi-square, namely there is a significant Relationship among diet and Levels of uric acid (p value = 0.000), there is a significant Relationship among attitudes and Levels of uric acid (p value = 0.004), and there is a significant Relationship among the level of knowledge and Levels of uric acid (p value = 0.000) at Sukaraya Health Center Work area. The research's results suggest that is a correlation with the elderly's blood uric acid levels at Sukaraya Health Center Work Area and their nutrition, attitudes, and knowledge levels.

Keywords: Diet, Attitudes, Level of Knowledge, Levels of uric acid

1. INTRODUCTION

Currently, along with the government's success in national development, it has shown good results in various fields, one of which is in the health sector, specifically having the capacity to raise the standard of human life expectancy, especially in the senior population. However, with the current development of the era, many elderly people are faced with various health problems, considering that the increasingly advanced age makes the elderly a vulnerable group to health problems, such as gout ¹.

The World Health Organization (WHO, 2020) reports that 34.2% of people worldwide have gout arthritis. In wealthy nations like America, gout arthritis is common. Gout has become more common in the US, affecting around 8.3 million people (4%) of the population.. Based on data from Riskesdes 2018, the prevalence of joint disease in Indonesia is 7.3% and Indonesia is ranked fifth after kidney failure in non-communicable diseases ².

The prevalence of gout arthritis or hyperuricemia in the world is estimated at 0.58 – 2.89/1000/person/year ³.in the research results of basic health study (Riskesdas, 2018) conducted in 2018, the prevalence of joint illness in Indonesia rose from 11.9% in 2013 to 13.3% in 2018, based on the diagnosis of health workers. Gout sufferers reach 1-2% of the adult population, with the highest incidence in men compared to women ⁴.

In reference to secondary information collected from 2019 South Sumatra Health Department Profile, Palembang had 98%, Baturaja had 96% and Muara Enim had 78% gout cases. In 2020, Gelumbang had 76%, Muara Enim had 87% and Baturaja had 73.5% gout cases. In 2021, Musi Banyuasin had 92%, OKU had 89% and Prabumulih had 84%. The two types of risk factors affecting Levels of uric acid are those

that can be controlled and those that cannot be controlled. Age, gender, and genetics are uncontrollable risk factors and controllable risk factors include excessive alcohol consumption, BMI, excessive purine intake, and medication use⁵.

The following are risk factors for gout heredity or history in the family, excessive purine or alcohol intake, obesity, high blood pressure, poor kidney function, taking a bath at night, and using certain drugs (particularly diuretics). Gout disease occurs when there are elevated levels of uric acid and is characterized by joint pain, soreness, aching, redness, and swelling. While gout cannot be cured, it can be controlled and can progress to crippling arthritis if left untreated¹.

Someone who has knowledge will pay more attention to the prevention of gout. One can acquire knowledge from a variety of sources, including health education or counseling, and by avoiding foods and drinks that can cause gout, losing weight, and drinking enough water⁶.

Ulfiyah's research (2013) explains that knowledge consists of knowing, understanding, applying, analyzing, synthesizing, and evaluating. This study shows that although respondents have good knowledge, their preventive behavior is less influenced by their own condition. One can acquire information through both formal and informal learning, as well as through various experiences. Therefore, a person's knowledge can influence their choice to act⁶.

Untari's research (2017) found that there is a fairly positive relationship between diet and gout, with the understanding that the more often you consume a diet with high purine levels, the higher the uric acid value. The relationship between diet and gout was also conveyed by Jakše (2019) in his research results stating that diet can result in increased Levels of uric acid and gout severity especially in plant-based dieters. Plant-based dieters specifically consume only a few plant-based food sources (eg certain

soy beans, sea vegetables, and brassica vegetables) which also contain high purine loads⁷.

Attitude is the general perception that a person has of themselves and others. It is an individual's closed reaction to an item or stimuli.. Perceptions of emerging phenomena are influenced by past experiences, which shape their perceptions of current circumstances and future expectations. Dietary status, often known as nutritional status, is the control of a person's food intake for a certain goal. Maintaining a healthy diet can help prevent or treat illnesses and preserve one's nutritional condition⁸.

Community attitudes are one of the factors that influence the provision of gout arthritis management in the community. Research conducted by Songgigilan et al. (2019) mentioned that the community has a lack of behavior in preventing gouty arthritis. Researchers consider that health problems must receive careful attention from the community. Community involvement in handling gouty arthritis is a shared responsibility in improving health levels⁹.

Furthermore, according to Saifudin (2017) explains that a person's attitude response is influenced by various factors, such as education (the better the level of education, the better the person responds to the stimulus given to behave), and work and social factors are important aspects that play a role in interactions with other individuals. The wider the interaction with an individual, the better the individual's attitude will be developed towards an object or problem⁹. The research project intends to ascertain the association between the diet, attitudes, and knowledge levels with the

elderly's blood uric acid levels at Sukaraya Health Center Work Area.

2. METHOD

Quantitative correlation using a cross-sectional approach is the study methodology employed. 50 samples were utilized in the study using the Total Sampling approach. In July 2024, the research was carried out at the Sukaraya Health Center work area. Data were collected by questionnaire through

3. RESULTS

Univariate Analysis

This analysis displays a description of the frequency distribution and percentage of variables including Levels of uric acid, diet, attitudes, and knowledge levels. The univariate analysis in this study is as follows:

Table 1. Table describing Respondents regarding the Level of Uric Acid at Sukaraya Health Center Work area

No	Levels of uric acid	Amount	Percentage
1	Hiperurisemia	32	64%
2	Controlled	18	36%
Total		50	100%

The results of the study in table 1, of the 50 respondents, 32 respondents (64%) had high uric acid concentrations and 18 respondents (36%) had controlled uric acid concentrations.

Table 2. Table describing Respondents regarding Diet at Sukaraya Health Center Work area

No	Dietary habit	Amount	Percentage
1	Good	19	38%
2	Not good	31	62%
Total		50	100%

The results of the study in table 2 show that out of 50 respondents, 19 (38%)

Bivariate Analysis

In order to analyze the relationship between variables, namely the independent and dependent variables, the findings of the conducted study are presented in a table using bivariate analysis. The chi-square test is the analysis that is employed.

questionnaire and observation of data used in this study, namely: 1) Primary data, namely South Sumatra Office Profile Data, Ogan Komering Ulu Regency Office Profile Data, and Sukaraya Health Center Profile Data. 2) Secondary data are Dietary Questionnaire, Attitude Questionnaire, Knowledge Level Questionnaire. Bivariate analysis using ordinal categorical data - nominal analysis using Chi - Square.

respondents had a good diet and 31 (62%) respondents had a bad diet.

Table 3. Table describing Respondents regarding Attitudes at Sukaraya Health Center Work area

No	Attitude	Amount	Percentage
1	Positive	15	30%
2	Negative	35	70%
Total		50	100%

The study's findings are shown in Table 3, where 15 (30%) of the 50 respondents had a good attitude and 35 (70%) had a negative attitude.

Table 4. Table describing Respondents regarding the Level of Knowledge at Sukaraya Health Center Work area

No	Level of Knowledge	Total	Percentage
1	Good	19	38%
2	Not good	31	62%
Total		50	100.0%

The results shown in the study's findings in Table 4, 19 (38%) of the 50 respondents had a good amount of knowledge, whereas 31 (62%) had a bad level.

Table 5. Relationship between Diet Patterns and Levels of uric acid at Sukaraya Health Center Work area

No	Dietary habit	Levels of uric acid				Amount		ρ Value
		Tall		Controlled		F	%	
		F	%	F	%			
1	Good	6	31.6	13	68.4	19	100.0	0,000
2	Not good	26	83.9	5	16.1	31	100.0	
Total		32	64.0	18	36.0	50	100.0	

From the results of the analysis of table 5, it is known that out of 50 respondents, 13 (68.4%) respondents had a good diet with high Levels of uric acid and 26 (83.9%) respondents had a poor diet with high Levels of uric acid.

The results of the chi square test obtained a ρ value of 0.000, which means there is connection dietary patterns with Levels of uric acid at Sukaraya Health Center Work area in 2024.

Table 6. Relationship between Attitude and Levels of uric acid at Sukaraya Health Center Work area

No	Attitude	Levels of uric acid				Amount		ρ Value
		Tall		Controlled		F	%	
		F	%	F	%			
1	Positive	5	33.3	10	66.7	15	100.0	0.004
2	Negative	27	77.1	8	22.9	35	100.0	
Total		32	64.0	18	36.0	50	100.0	

According to the findings of the analysis of Table 6, of the 50 respondents, 5 (33.3%) had a favorable attitude toward high uric acid levels, whereas 27 (77.1%) had a negative attitude toward such levels.

The Sukaraya Health Center Work area's attitudes and uric acid levels in 2024 are related, according to the chi square test findings, which showed a ρ value of 0.004

Table 7. Relationship between Knowledge Level and Levels of uric acid at Sukaraya Health Center Work area

No	Level of Knowledge	Levels of uric acid				Amount		ρ Value
		Tall		Controlled		F	%	
		F	%	F	%			
1	Good	6	31.6	13	68.4	19	100.0	0,000
2	Not good	26	83.9	5	16.1	31	100.0	
Total		32	64.0	18	36.0	50	100.0	

From the results of the analysis of table 7, it is known that out of 50 respondents, it was found that respondents with a good level of knowledge with high Levels of uric acid were 6 (31.6%) respondents and respondents with a poor level of knowledge with high Levels of uric acid were 26 (83.9%) respondents.

of uric acid at Sukaraya Health Center Work area in 2024.

The results of the chi square test obtained a ρ value of 0.000, which means there is connection level of knowledge with Levels

A healthy diet is a method or effort to regulate the quantity and type of food with a specific purpose, such as maintaining health, nutritional status, preventing or helping to cure disease⁷. Eating patterns or food consumption patterns are the types and quantities of food consumed by a person or group of people at a certain time¹⁰.

According to Kertika (2014), foods and drinks that can cause an increase in Levels of uric acid in the blood. One of the suspected causes is excessive purine intake which causes the accumulation of purine crystals in certain joints which can increase Levels of uric acid in the blood. Research shows that excessive purine intake contributes to increasing the occurrence of gout, and animal purines contribute greatly to increasing uric acid compared to purines from plants ¹¹.

Poor eating patterns are found in the elderly who still consume foods that are prohibited for gout patients, find it difficult to change the habit of drinking strong tea or coffee, and continue to consume fatty foods and foods with thick coconut milk ¹². Based on the results of the study on the relationship between diet and Levels of uric acid, the analysis results show that out of 50 respondents, 13 (68.4%) respondents had a good diet with high Levels of uric acid and 26 (83.9%) respondents had a poor diet with high Levels of uric acid.

The results of the chi square test obtained a p value of 0.000, which means there is disconnection dietary patterns with Levels of uric acid in the Sukaraya Health Center Working Area in 202.

Research result shows that most of the people in the Telaga Health Center Work Area, Gorontalo Regency have poor eating patterns and this is evidenced by the large Total of data obtained, namely the large number of respondents who have good eating patterns. The results of the Chi-Square test obtained a p -Value = 0.023 (<0.05), therefore H_0 was rejected, which means that there is a meaningful and significant relationship between eating patterns and Levels of uric acid in the Telaga Health Center Work Area, Gorontalo Regency ¹¹. The results of this study are in line with the results of research conducted by Ida (2017) which concluded that there is a sufficient and positive relationship between diet and gout, in the sense that the more often you consume a diet with a high purine content,

the higher the uric acid level. The results of this study are also supported by the results of research conducted by Sayekti (2016) which states that there is a relationship between diet and Levels of uric acid in pre-elderly ⁷.

Researchers assume that if respondents who have a poor diet but have normal Levels of uric acid, this could be due to other factors, for example, consuming too much of the various contents in food that can make the respondent's diet bad or not good, and vice versa if respondents have a good diet but have Levels of uric acid above normal, this can also be due to several factors that can increase the respondent's Levels of uric acid.

Based on the self-evaluation process, attitude is an evaluative response that culminates in a favorable or negative appraisal that then develops as a reaction to the object. This means that someone who has a good attitude towards the problem of disease will always try to prevent the disease in their daily life. Likewise, someone who has a bad attitude will not prevent the disease (Sunaryo, 2011) ¹².

Personal experiences, the impact of other significant individuals, culture, the media, educational and religious institutions, and emotional elements are all aspects that affect how attitudes are formed ¹⁵.

Based on the results of the study on the relationship between attitudes and Levels of uric acid, the results of the analysis showed that out of 50 respondents, 5 (33.3%) respondents had a positive attitude towards high Levels of uric acid and 27 (77.1%) respondents had a negative attitude towards high Levels of uric acid.

The results of the chi square test obtained a p value of 0.004, which means there is connection attitudes with Levels of uric acid at Sukaraya Health Center Work area in 2024.

Research result shows that of the 14 respondents who have a bad attitude about gout, there are 71.4% of respondents with bad gout prevention efforts and 28.6% of respondents with good gout prevention efforts, while of the 18 respondents who have a good attitude about gout, there are 22.2% of respondents with bad gout prevention efforts and 77.8% of respondents with good gout prevention efforts. The results of statistical tests using chi-square obtained a p-value of 0.015 (p-value <0.05), meaning that there is a relationship between attitudes and gout prevention efforts in Wawondula Village, Mori Utara District, North Morowali Regency¹².

According to the researcher's assumption that there is a relationship between attitude and efforts to prevent gout because respondents who already have a good attitude about gout will assume that it is very necessary to make efforts to prevent gout, so that from this the respondents will make good prevention efforts in order to prevent the emergence of gout problems, on the other hand if respondents have a bad attitude about gout, then this will not support in preventing gout, because basically respondents already have an indifferent attitude towards gout problems so that it is unlikely to take preventive measures.

Knowledge is the result of knowing and this occurs after someone senses a certain object (Notoatmodjo, 2014). A person's age, education level, information gathered by respondents, local socioculture, home environment, and aging experiences all have a significant impact on their degree of knowledge. In order to achieve a healthy lifestyle, it is necessary to have knowledge about the Gouty Arthritis diet¹⁶.

Knowledge about how to choose the right diet menu for elderly people with Gouty Arthritis is important in efforts to protect the health of Gouty Arthritis sufferers. Lack of knowledge will have an impact on the emergence of new diseases such as kidney stones, arthritis and kidney damage. Lack of

education will hinder the consideration of a person's attitude towards new values

that are introduced so that the knowledge possessed is lacking. Consuming appropriate foods has a high level of effectiveness in preventing sufferers from experiencing Gouty Arthritis compared to not following a Gouty Arthritis diet (Lumando, 2016)¹³. Gout is a commonly heard term, but many people lack a clear understanding of it¹⁷. Many people do not understand gout due to insufficient knowledge about the condition and how to prevent it. Knowledge is an either factor influencing individual health behaviour¹⁸. Proven by the results of the research that has been conducted where gout arthritis sufferers mostly have poor diet (57.1%) and the Total of drinking water consumption <8 glasses is the most (71.0%), coupled with the incidence of gout arthritis seen from abnormal Levels of uric acid the most (74.2%). The above are included in the prevention of gout arthritis. So it can be seen that respondents do not understand how to prevent gout arthritis. On the other hand, someone who has good knowledge will definitely understand how to prevent gout arthritis¹⁹.

Based on the results of the study on the relationship between the level of knowledge and Levels of uric acid, the results of the analysis showed that out of 50 respondents, 6 (31.6%) respondents had good knowledge with high Levels of uric acid and 26 (83.9%) respondents had poor knowledge with high Levels of uric acid.

The results of the chi square test obtained a ρ value of 0.000, which means there is connection level of knowledge with Levels of uric acid at Sukaraya Health Center Work area in 2024.

Based on research showed that respondents who had good knowledge were 4 respondents (9.09%), had sufficient knowledge 10 respondents

(22.73%) and those who had less knowledge were 30 respondents (68.18%). most of them did not relapse, namely 9 respondents, 1 respondent relapsed. And in 4 respondents who had good knowledge did not experience relapse, namely 4 respondents. With the use of SPSS, the sperm rank data analysis findings showed that the probability value of the test results was $p = 0.000$, with a degree of closeness of 943, indicating a very close link. where $p < 0.05$ so that H_1 is accepted, which means there is a relationship between the level of knowledge about gout and the occurrence of gout relapse in gout sufferers in Sugihwaras Village, Sugihwaras District, Bojonegoro Regency²⁰.

According to the research assumptions conducted by researchers based on interview results, some respondents said they would only do a low-purine diet when sick, and stop the low-purine diet when they were not sick. Researchers also found that the tendency for less knowledge about low-purine diets in the elderly was because of the absence of information from health care workers and misinformation from family, relatives, friends and the patient's environment about low-purine diets for the elderly, so that information obtained from health workers was less noticed by respondents and tended to follow misinformation from the patient's environment, hence influencing the elderly's degree of gout knowledge.

4.CONCLUSION

The current research concludes that, with a ρ Value of 0.000, there is a link between diet and uric acid levels at the Sukaraya Health Center Work area in 2024. In 2024, there is a correlation (ρ Value of 0.004) between attitudes and uric acid levels in the Sukaraya Health Center Work area. The Sukaraya Health Center Work Area's knowledge level and uric acid levels are related in 2024, by ρ Value of 0.000.

This research is expected to provide health workers with information about the importance of improving diet at a pre-elderly age so that Levels of uric acid remain normal, a good diet for example

avoiding foods that contain purines such as liver, offal, duck meat, nuts, belijo. It is hoped that respondents will continue to pay attention to the causative factors and signs of gout arthritis which are still widely unknown by gout arthritis sufferers. Regulate dietary patterns that cause increased uric acid in the blood, such as avoiding consumption of foods that contain high purines, including seafood in the form of crabs, shrimp, and other types, as well as poultry such as chicken, eggs, offal, and other sources of animal protein. Increase consumption of fresh vegetables and water, increase consumption of non-animal foods such as fresh nuts, fresh mushrooms, and note not preserved foods. It needs to be balanced with healthy behavior from gout arthritis sufferers such as starting light activities, not consuming alcohol, and avoiding stress..

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