



DIETARY COMPLIANCE OF ELDERLY WITH GOUT IS INCREASING WITH THE KNOWLEDGE INCREASEMENT

Wahyu Nur Pratiwi, Ely Isnaeni, Paramita R. Gayatri, Wahyu Sri Astutik , Yuan G. Pratama

Institut Ilmu Kesehatan Bhakti Wiyata Kediri

Email: wahyu.pratiwi@iik.ac.id

ABSTRACT	Keywords
<p>Gout is a disease that is experienced by many elderly people. Gout treatment management can be successful with the sufferer's compliance, especially diet compliance. To be able to adhere with the diet that must be followed, elderly people need to have good knowledge about their disease. More than half of the elderly in Kauman Village, Tulungagung who were found during the initial data collection had limited melinjo-based foods but had not limited other foods that increase uric acid levels even though most had received education about gout. This study determine whether there are relationship between knowledge about gout and dietary compliance in elder people with gout in Kauman, Tulungagung or not. This study was cross sectional research with 187 respondents. Spearman rank correlation test result showed a significance value (0.000) with 0.728 of coefficient value. Knowledge about gout showed positive and strong relationship with dietary compliance in elderly people with gout. It can be inferred that the better knowledge, the better and higher respondents dietary compliance.</p>	<p>Gout, Elderly, Knowledge, Dietary Compliance</p>

INTRODUCTION

Along with the changes that occur in the aging process, elderly people do not escape experiencing various disorders of body function which are susceptible to disease (Algifari et al., 2020). One of the diseases that elderly people often experience is gout (gouty arthritis). Gout is a disease associated with high levels of uric acid in the blood. Compliance with a low-purine diet plays an important role in reducing blood uric acid levels. People who were respondents in this study still showed non-compliance with a low-purine diet and limited knowledge about gout. Knowledge about health is crucial in

daily life, especially the experience of a low purine diet (Notoatmodjo, 2012).

According to WHO, the prevalence of gout in 2017 in Indonesia was the 4th largest disease in the world. There are 81% of the population studied suffered from gout, and 35% of gout occurred in men under 34 years old (World Health Organization (WHO), 2017). Gout in Indonesia has increased, which on people over 75 years (54.8%), female sufferers (8.46%) , while in male sufferers (6.13%) (Kemenkes RI, 2018). According to the Tulungagung District Health Service in 2022, the prevalence of gout was recorded in 12 villages with a total of 3,153 elderly people with a prevalence of 11% who experienced

gout problems and in Kauman Village itself the prevalence of gout reached 187 elderly people.

Increased levels of gout in the blood (hyperuricemia) occur due to the increase or decrease of uric acid through the kidneys, or a combination of both (Beavers et al., 2014). Gout can be treated through gout management. This management can be successfully influenced by the knowledge and compliance of the elderly.

Knowledge in controlling a low purine diet is very important. Knowledge about health is crucial in living daily life (Notoatmodjo, 2012). The role of researchers in this case is very much needed to increase the knowledge of elderly people in adopting a low-purine diet through health education activities and increasing knowledge about efforts to adopt a low-purine diet. Basically, knowledge will continue to increase in accordance with the process of human experience, new sources of information obtained are a substitute for previously acquired knowledge or are improvements to previous information (Ardhiatma et al., 2017).

Compliance with a low-purine diet also plays an important role in reducing gout levels. Compliance with gout arthritis sufferers in following a diet depends on self-awareness. Knowledge and attitudes for clients with Gout can be seen when arranging the food needed for Gout sufferers (Saputra, 2019). The ability to manage a protein diet needs to be improved and is recommended for Gout sufferers, because of the awareness to change healthy lifestyle habits to regulate and further improve the quality of one's health (Madoni, 2018).

The impact that occurs if a lack of knowledge about Gout results in the absence of preventive measures will make Gout worse. Even though gouty arthritis is not life-threatening, if this disease starts to attack, the sufferer will experience very painful pain, swelling, and even disability in the joints of

the hands and feet. The pain in the swelling is caused by the formation of monosodium urate crystal deposits which cause pain in the area (Sholihah, 2014).

Gout diet management is an important treatment that aims to reduce foods high in purine such as melinjo leaves, spinach, sardines, kale. The Gout Diet is a natural method of controlling gout, compared to gout-reducing drugs which can cause several side effects (Noviyanti, 2015). Gout sufferers who do not follow a Gout diet will have a buildup of gout arthritis crystals in the joints, and even in the kidneys, which can cause kidney stones (Damayanti, 2015).

METHOD

This study is quantitative research with non-experimental descriptive correlation research method, namely correlation research with a cross sectional method. This research was conducted at the Posyandu for the Elderly in Kauman Village, Tulungagung Regency in November 2022 - March 2023.

The elderly patients with gout who met the inclusion and exclusion criteria, totaling 187 respondents joining this research. The two variables in this research were measured by questionnaire which had been tested for validity and reliability.

RESULTS

Table 1. Distribution Based on The Gender

Table 1 shows that the majority of respondents were female, 140 respondents (74.9%).

Gender	Freq	Percentage (%)
Men	47	25.1 %
Women	140	74.9 %
Total	187	100 %

Table 2. Respondents Distribution Based on The Ages

Ages	Freq	Percentage (%)
60-70 years old	127	67.9 %
50-60 years old	60	32.1 %
Total	187	100 %

Table 3. Respondents Distribution Based on Educational Level

Educational Level	Freq	Percentage (%)
Bachelor / Diploma	14	7.5 %
Senior High School	43	23 %
Junior High School	42	22.5 %
Elementary School	82	43.9 %
Uneducated	6	3.2 %
Total	187	100 %

The majority of respondents had elementary school education, 82 respondents (43.9%).

Table 4. Respondents Distribution Based on the History of Acquiring Information about Gout

History of Acquiring Information	Freq	Percentage (%)
Ever	149	79.7 %
Never	38	20.3 %
Total	187	100 %

It can be seen that the majority of respondents had received information previously, 149 respondents (79.7%).

Table 5. Respondents Distribution Based on The Length Time Period Getting Gout

Time Period	Freq	Percentage (%)
1-5 years	172	92 %
6-10 years	15	8 %
Total	187	100 %

The majority of respondents suffered from gout for 1-5 years, 172 respondents (92%).

Table 6. Respondents Distribution Based on Their Knowledge Level

Knowledge Level	Freq	Percentage (%)
Good	147	78.6 %
Moderate	35	18.7 %
Poor	5	2.7 %
Total	187	100 %

Table 6 shows that the majority of respondents had good knowledge, 147 respondents (78.6%).

Table 7. Respondents Distribution Based on The Adherence Levels

Adherence Level	Freq	Percentage (%)
High	137	73.3 %
Moderate	44	23.5 %
Low	6	3.2 %
Total	187	100 %

Based on table 8, it can be seen that the majority of respondents had high compliance, namely 137 respondents (73.3%).

Knowledge	Adherence			Total
	High	Moderate	Low	
Good	132	14	1	147
Moderate	5	30	0	35
Poor	0	0	5	5
Total	137	44	6	187
Sig. Value 0.000				
Correlation Coefficient Value 0.728				

Table 8. Analysis of the Relationship between Knowledge and Adherence to the Gout Diet in Elderly People with Gout

Most respondents who had good knowledge also had high compliance (132 respondents). The results of the spearman rank correlation test obtained a sig value of $0.000 < 0.05$ and a Correlation Coefficient value of 0.728, meaning that there is a relationship between knowledge about Gout and diet compliance in elderly people with Gout at the elderly posyandu in Kauman Village, Tulungagung Regency, and has a positive value, so the relationship between the two variables is in

the same direction. (unidirectional type of relationship). It can be concluded that the better the knowledge, the higher the respondent's compliance.

DISCUSSION

Gout Diet Knowledge in Elderly Sufferers of Gout

Most of the respondents had good knowledge, namely 147 respondents (78.6%), although the respondents' highest education was high school and the majority of respondents had low education, namely elementary school (43.9%). This can happen because the level of education does not correlate significantly with knowledge about the Gout diet. This is in accordance with research conducted by (Badri et al., 2020). with the research title "Analysis of Factors that Influence Public Knowledge about Hyperuricemia Risk Factors" which showed that educational level didn't have significant correlation with knowledge about hyperuricemia risk factors. Knowledge is closely related to education but we also need to emphasize that someone with low education does not mean absolutely low knowledge (Ilmi & Rahman, 2017).

What supports the formation of good knowledge among respondents is a history of receiving information about gout. Most respondents (79.7%) had received information about Gout. Maulana (2009) explains that the information a person obtains will be processed and produce knowledge (Sirait et al., 2014). The more often someone gets information, the more their knowledge will increase and this will influence their attitudes and behavior. A person's

knowledge can be influenced by the source of information, where a person's exposure to information influences a person's knowledge (Laili s& Probosiwi, 2021)

Gout Dietary Compliance in Elderly People with Gout

The research results showed that the majority of respondents had high compliance, 137 respondents (73.3%). Triyanto et al (2015) in (Yosfand et al., 2022) stated that the longer you suffer from a chronic disease, the more extensive knowledge and experience you will have in terms of diet so that you will adhere to the recommended diet so that it will influence the sick individual's attitude towards the treatment plan (Yosfand et al., 2022). However, according to Sutiono & Hatmanti (2018) in their research entitled "The Relationship between Family Support and Adherence to the Gout Diet in the Elderly at the Elderly Posyandu in the Working Area of the Wonokromo Health Center, Surabaya," sufferers who have had gout for a long time will experience boredom when dieting. (Sutiono & Hatmanti, 2018).

Diet Compliance Of Elderly With Gout Is Increasing With The Knowledge Increase

The research results showed that the majority of respondents who had good knowledge also had high compliance, namely 132 respondents. Based on the results of the spearman rank correlation test, a sig value of $0.000 < 0.05$ was obtained and a Correlation Coefficient value of 0.728. This means that there is a relationship between knowledge about gouty arthritis and diet compliance in elderly people with gouty arthritis at the elderly posyandu in Kauman Village, Tulungagung Regency, and it has a positive value, so that the relationship between the two variables is unidirectional (type of

unidirectional relationship). The better the knowledge, the higher the respondent's compliance. Likewise, if knowledge decreases then compliance will decrease.

This research is also in line with research conducted by Triana (2016) with the research title "The Relationship between the Level of Knowledge of Gout Sufferers and Compliance with a Low Purine Diet in the Working Area of the Darussalam Health Center, Medan" which resulted in the majority of respondents who had a good level of knowledge also having compliance. as many as 16 respondents, namely 16 respondents (53.3%) (Triana, 2016). In this study, a p-value of 0.027 <0.05 was obtained, so it can be concluded that there is a relationship between the level of knowledge of gout sufferers and compliance with a low purine diet.

Several factors influence compliance, namely predisposing, supporting and driving factors, where the level of knowledge is a factor included. Behavior that is based on good knowledge will have the potential to give rise to positive behavior than behavior that is not based on knowledge. Therefore, the good level of knowledge of respondents makes respondents adhere to the gout diet. In contrast to respondents who have less knowledge, they are more likely to be non-compliant with a gout diet (Aupia, 2021).

Knowledge is very important for respondents to comply with diet. If the respondent has good knowledge then the respondent's compliance in implementing the diet will be higher and vice versa, if the respondent's knowledge is lacking then the respondent's compliance in implementing the diet will be lower..

CONCLUSIONS

Knowledge about gout showed positive and strong relationship with dietary compliance in elderly people with gout. It can be inferred

that the better knowledge, the better and higher respondents dietary compliance.

REFERENCES

- Algifari, M. R. N., Darma, S., & Reagan, M. (2020). Knowledge of Arthritis Gout Among Patients at Rheumatology Clinic in RSUP DR. Mohammad Hoesin Palembang. *Sriwijaya Journal of Medicine*, 3(1), 57–64. <https://doi.org/https://doi.org/10.32539/SJM.v3i1.128>
- Ardhiatma, F., Rosita, A., & Eko, M. (2017). Hubungan Antara Pengetahuan Tentang Gout arthritis Terhadap Perilaku Pencegahan Gout arthritis Pada Lansia. *Global Health Science*, 2(2).
- Aupia, A. (2021). The Effect of Health Education on The Knowledge and Adherence of Diet for Gout Arthritis Patients. *Media Keperawatan Indonesia*, 4(2), 120–126. <https://doi.org/https://doi.org/10.26714/mki.4.2.2021.120-126>
- Badri, P. R. A., Rosita, Y., & Pratiwi, D. (2020). Analisis Faktor-Faktor Yang Mempengaruhi Pengetahuan Masyarakat Tentang Faktor Risiko Hiperurisemia. *Syifa' MEDIKA: Jurnal Kedokteran Dan Kesehatan*, 20(10), 1–8.
- Damayanti. (2015). *Panduan Lengkap Mencegah Dan Mengobati Gout arthritis*. Araska.
- Grose, M. (2009). *Improve your child's concentration at home. 1*, 5983. https://uralla-c.schools.nsw.gov.au/content/dam/doi/s ws/schools/u/uralla-c/localcontent/1318084797601_19eb9ef92e786b41012e9c965fb627ae.pdf
- Ilmi, V. L., & Rahman, F. (2017). Hubungan Antara Tingkat Pengetahuan Dengan Perilaku Penderita Asam Urat Yang Memperberat Terjadinya Gout Di Pakel Sukoreno Kecamatan Prigen Kabupaten Pasuruan. *Akademi Farmasi Putra*

Indonesia Malang.

Kemendes RI. (2018). *Potret Sehat Indonesia dari Riset Kesehatan Dasar 2018*.

Laili, N. F., & Probosiwi, N. (2021). Analisis Faktor-Faktor yang Mempengaruhi Pengetahuan Hipertensi di Rumah Sakit X di Kabupaten Malang. *Jurnal Inovasi Farmasi Indonesia (JAFI)*, 3(1), 1–10.

Madoni, A. (2018). Pengaruh Kompres Hangat Memakai Parutan Air Jahe Terhadap Penurunan Intensitas Nyeri Gout arthritis Pada Lansia Di Wilayah Kerja Puskesmas Lubuk Begalung Tahun 2017. *Jurnal Penelitian Dan Kajian Ilmiah*, 12(3). <https://doi.org/https://doi.org/10.33559/mi.v12i3.530>

Notoatmodjo, S. (2012). *Promosi Kesehatan dan Perilaku Kesehatan*. Rineka Cipta.

Noviyanti. (2015). *Hidup Sehat Tanpa Gout arthritis* (1st ed.). Yogyakarta Notebook.

Saputra, B. I. (2019). *Hubungan Dukungan Keluarga Dengan Kepatuhan Diet Gout arthritis Pada Penderita Gout arthritis Di Kacangan Giripurwo Purwoasri Gunung Kidul* [Universitas Aisyiyah Yogyakarta]. <http://digilib.unisayogya.ac.id/id/eprint/4318>

Sholihah, F. M. (2014). Diagnosis And Treatment Gout Arthritis. *Universitas Lampung*, 3(7).

Sirait, N. A. J., Rustina, Y., & Waluyanti, F. T. (2014). PEMBERIAN INFORMASI MENINGKATKAN PENGETAHUAN, SIKAP DAN KETERAMPILAN ORANG TUA DALAM PENANGANAN DEMAM PADA ANAK. *Jurnal Keperawatan Indonesia*, 16(2), 101–106.

Sutiono, M. D., & Hatmanti, N. M. (2018). Hubungan Dukungan Keluarga Dengan Kepatuhan Diet Asam Urat Pada Lansia Di Posyandu Lansia Wilayah Kerja Puskesmas Wonokromo Surabaya. *Jurnal SUniversitas Nadlatul Ulama*

Surabaya, 4(2), 125–132.

Triana, H. (2016). Hubungan Tingkat Pengetahuan Penderita Asam Urat Dengan Kepatuhan Diet Rendah Purin Di Wilayah Kerja Puskesmas Darussalam Medan. *Jurnal Keperawatan Flora*, 9(1), 98–110.

World Health Organization (WHO). (2017). *WHO Methods and Data Sources Global Burden of Disease Estimates 2000-2015*.

Yosfand, N. Z., Rizka, Y., & Elita, V. (2022). Hubungan Lama Menderita Hipertensi Dan Dukungan Keluarga Dengan Kepatuhan Diet Pada Pasien Hipertensi Di Puskesmas Simpang Tiga. *Riau Nursing Journal*, 1(1), 51–59. <https://doi.org/https://doi.org/10.31258/rnj.1.1.51-59>