



KNOWLEDGE DEFICIT ABOUT DIETARY NEED IN FAMILIES WITH GOUT ARTHRITIS: A CASE STUDY

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Case Study

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ABSTRACT

Introduction: At this time, people with gout arthritis are not only found in the elderly because lifestyles that pay less attention to their health also have a risk of increased uric acid levels in the blood. Gout arthritis is a joint disease caused by increased uric acid levels in the blood, causing several problems. One of the causes of gout is the patient's lack of knowledge about the rules of the gout arthritis diet. The purpose of this study was to carry out family nursing care with a deficiency of understanding of case gout arthritis in Balungkawun Village, Sukodadi District of Lamongan Regency. **Methods:** The research method used is case study research. The research subjects used five respondents from five family members who had gouty arthritis with knowledge deficit problems in Balungkawun Village, Sukodadi District of Lamongan Regency, using a family nursing process approach. The data was collected through interviews, observation, physical examination, and documentation. The data obtained were analyzed by comparing the theory with cases. **Results:** The results of the case studies were analyzed, and it was found that there was a match in the process of assessment, diagnosis, intervention, and evaluation. Meanwhile, there are gaps in implementation that are not by the planned intervention. **Conclusions:** It is expected that families and patients can apply the proper diet for gout arthritis to reduce recurrence and uric acid levels in the patient's blood.

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INTRODUCTION

Individuals who have knowledge in the health sector will improve the quality of their health. Conversely, if the individual has less knowledge, it will be difficult for a person to achieve optimal health status. According to PPNI (2016), the absence or lack of cognitive information related to a particular topic is called a knowledge deficit. Health problem in the family are caused by several factors, one of which is caused by disease factors, namely gout arthritis or commonly known as gout. Data shows that joint disease is mostly experienced by those of productive age, which will have an impact not only on health problems but also social and economic problems. Gout arthritis is a non-communicable disease but has a long duration and generally develops for a long time (Juliana, et al, 2018).

Based on data from the add WHO years data the prevalence of gout arthritis in the world is 34.2%. Its better use sentences, but gout arthritis in developed countries like America is also common. The prevalence of gout arthritis in America is 26.3% of the total population (Badan Pusat Statistik Provinsi Jawa Timur, 2019). The prevalence of gout

in Indonesia based on Riskesdas 2018 obtained a percentage of 7.3%. East Java with a percentage of 6.72% of the population over the age of 15 years (Kemenkes RI, 2018) The prevalence of joint disease in the population aged 15 years is the group with the age 75 years having a higher prevalence of 18.95%. When viewed from the data, the prevalence of gout arthritis in women was 8.46% higher than in men by 6.13%.

Etiological factor that cause people to develop gout is genetics, family history, excessive purine intake, alcohol consumption, obesity, comorbidities such as hypertension, impaired kidney function, and the use of certain drugs, especially the use of diuretics (Anggrayni, 2020). If the level of purine consumption is higher and is not accompanied by a balanced consumption pattern, it can increase the severity of gout arthritis itself (Amalia Zakma, 2020). Someone who has a family of gout sufferers, about 18% have a history of the same disease in one of their family members. The relationship between genetics and uric acid levels is thought to be due to excessive metabolism of purines. Therefore, this condition can theoretically be passed down from parents to their children

(Jason, 2020) Uric acid levels in the body should not be excessive because basically uric acid is the result of metabolism in the body, everyone has uric acid in their body, because every metabolism Normally, uric acid will be produced while the trigger is food factors and other compounds that contain lots of purines (Jason, 2020).

Risk factors that lead to increased uric acid levels include age and gender. Low uric acid levels in children. However, after puberty, uric acid levels begin to increase until they reach normal levels. In men, the levels are higher than in women. However, uric acid levels in postmenopausal women increase to reach the level of men. This explains why gout is usually a disease in middle-aged men and postmenopausal women (Jason, 2020) Although this disease is rarely found in children and young adults, considering the lifestyle of today's society which tends to be at risk, it can increase uric acid levels in the blood.

Increased levels of uric acid in the blood are also influenced by the level of knowledge that is less related to the disease. This knowledge deficit if not stopped will increase the severity of gouty arthritis. If gout arthritis is not treated immediately, it will cause various complications, such as disorders of the cardiovascular system, kidney system disorders, gastrointestinal system disorders, spinal cord deposition, and ocular abnormalities. (Barik, A. L., Purwaningtyas, R. A., & Astuti, 2019).

Gout is a disease that can be controlled, although not curable. However, if left unchecked, this condition can develop into crippling arthritis . Therefore, the role of nurses is very important in

providing education to families who have family members who have gouty arthritis through health education related to the disease, how to handle it, and especially the gout arthritis diet. Dietary regulation can be done by implementing dietary principles such as limiting purine consumption, not consuming alcohol, reducing fatty foods, and increasing the consumption of lots of fluids .(Cho SK, 2015).

The purpose of this study was to carry out family nursing care with deficiency of knowledge of case gout arthritis in Balungtawun Village, Sukodadi District of Lamongan Regency. In order to keep the diet under control, the involvement of the family is one way for the patient to comply with the programmed diet (Amalia, 2020). Because the family is the main support system for gout sufferers in maintaining their health.

MATERIALS AND METHODS

The research design used in this study is a case study research, a research by exploring the problem of family nursing care in cases of gout Arthritis with a knowledge deficit in fulfilling diet. Patients performed family nursing care actions by way of home visits. Collecting data using method interviews, observations, documentation). This study uses a semi-structured interview type, in which the interviewer can develop questions based on the answers from the interviewees, so that this method is more flexible and allows for more in-depth data (Nursalam, 2015) In this study, the research used a family nursing care format as a research instrument.

RESULTS

Assesment

Table 1. Assessment of clients with knowledge deficits about uric acid in Balungtawon Village, Sukodadi Lamongan District in 2022

Client	Assessment
Mrs. I	I have had gouty arthritis for 2 years. The client does not know the cause of the increase in uric acid levels. The client knows that people with gout are not recommended to consume green vegetables. Mrs. L avoid green vegetables but consume tofu and tempeh
Mrs. S	I have had gout for the past 2 years. The results of the family assessment did not recognize the health problems experienced by Mrs. S. The family said that Mrs. S is often in pain and his left knee is stiff. Examination of uric acid levels 9.3 mg/dl. Clients often consume foods made from soy such as tofu and tempeh
Mrs. T	The client had gout since 1 year ago. poor families recognize the client's health problems. The client does not know the cause of gout. Examination of uric acid levels 15.5 mg/dl. The client does not know what to avoid so that uric acid levels are normal
Mrs. K	the data obtained by the client said he liked fried peanuts and melinjo. The client expresses ignorance of uric acid. The client does not know the cause and treatment of gout.
Mrs. W	The date obtained that the client likes to consume shrimp and nuts. During the assessment, the client often asks about the causes, signs and symptoms, and how to treat gout. The client does not check uric acid levels.

Nursing diagnosis

Table 2. Table of nursing diagnoses for patients with knowledge deficit about uric acid gout in Balungtawon Village, Sukodadi Lamongan District in 2022

Client	Nursing diagnosis
Mrs. I	The diagnosis of knowledge deficit can be established because there is a mistake in understanding the gout arthritis diet pattern
Mrs. S	klien mengatakan bahwa penyakit asam urat ditandai dengan nyeri reumatik, namun klien sendiri tidak mengetahui secara luas penyebab dan cara pengobatan asam urat.
Mrs. T	The client's lack of exposure to information about gout, clients often ask about the causes of gout, signs and symptoms, as well as foods to avoid and how to prevent them.
Mrs. K	The client's lack of exposure to information about gout, clients often ask about the causes of gout, signs and symptoms, as well as foods to avoid and how to prevent them.
Mrs. W	The client's lack of exposure to information about gout, clients often ask about the causes of gout, signs and symptoms, as well as foods to avoid and how to prevent them

DISCUSSION

Table I shows the data that supports the problem of knowledge deficit about gout arthritis. Knowledge is information owned by a person, which is combined with understanding. Knowledge is obtained from the results of sensing a particular object. Knowledge is obtained from the learning process (Notoatmojo s, 2012). Clients who experience gout arthritis and do not know the meaning, causes and ways to overcome them can be given counseling by nurses, so that clients can overcome their problems.

For the formulation of nursing diagnoses or problems the author uses the writing guidelines published by PPNI in 2016 namely the Indonesian Nursing Diagnosis Standards (IDHS). Based on the data analysis that has been done, the nursing diagnosis of knowledge deficit related to the family's inability to recognize health problems can be enforced. In real cases, the diagnosis that can be raised in each family is a family knowledge deficit related to the family's inability to recognize health problems. This is evidenced by the family expressing ignorance about gout arthritis and not knowing how to handle and prevent recurrence so that the client's health status is less than optimal. This fact supports the statement in the IDHS book published by PPNI (2016) that knowledge deficit is the absence or lack of cognitive information related to certain topics. In this case, it could be due to lack of exposure to information and mistakes in following the recommendations. So that in the case of a knowledge deficit diagnosis can be enforced.

Nursing interventions are carried out in accordance with nursing diagnoses that are prioritized by the author and the client. The intervention was made based on the guidelines from the Indonesian Nursing Intervention Standard (SIKI) and the expected outcomes or outcomes using the guidelines from the Indonesian Nursing Outcome Standard (SLKI). Health education is needed to overcome the problem of knowledge deficit in clients with gout arthritis so that they can increase knowledge and optimal health. The author

provides health education related to the disease process and diet education in patients with gout arthritis to all respondents. Basically the concept of a gout arthritis diet is a low purine diet. So the authors explain to clients and families about what foods are recommended and prohibited in order to achieve the success of the recommended diet. Family involvement as a support system also has to do with adherence and the success of the diet that has been programmed. According to Friedman (2010), one of the functions of the family is health care for sick family members, but most families do not have the ability to care for sick family members. Therefore, in its implementation, the author involves the family in the intervention for gout arthritis clients.

Implementation was carried out for 3 days, starting with each family. Implementation is carried out according to the planned intervention based on the client's main nursing problem, namely the knowledge deficit. Nursing implementation is carried out according to predetermined interventions based on established problems, all clients and families are cooperative. Implementation is done on the client to overcome the problem of knowledge deficit. The first implementation is by providing education about the process of gout arthritis. Furthermore, the implementation provided is to provide education to clients and families about gout arthritis diet recommendations. Nursing actions were carried out well and no obstacles were found when implementing them on clients. Education for clients is carried out using the lecture method with leaflet media to make it easier for clients to understand the material that has been delivered. (Amalia Zakma, 2020) This is supported by a study group that conducted a systematic literature review on the effectiveness of the use of traditional media such as posters and leaflets in public health promotion efforts in the digital era. Researchers reveal that the media is still effective by combining it with other media such as videos, telephone interactions, games, and others (Barik, et al., 2019). The use of online methods is difficult to implement

on clients due to the author's limited ability to facilitate this. Not only that, clients are also not fully able to do these interventions because there are limitations in the use of electronic media such as clients 2 and 4. Therefore, optimal disease education and self-management tools for gout patients must consider patient preferences and the most appropriate modality effective for them. Online programs may be suitable for some, and support groups and individual patient education or counseling for others. Different approaches may be needed based on age, education level, health literacy, gender, ethnicity, language, and other factors that affect the ability to access the programme. (Kozier, Erb, Berman, A. & Snyder, 2011) Explain several factors that need to be considered in a patient-centered interactive approach to education for gout patients including choosing a method that is suitable for the patient, identifying knowledge gaps, teaching the basic principles of gout (cause, acid level, etc.). normal veins, and diet), involving families in health education, considering the impact (age, gender, ethnicity, language, health literacy, and socioeconomic status), multidisciplinary approach with optimal provider communication and effective provider education, and utilizing facilities health services to provide long-term treatment and care (Maglaya, 1978).

The author evaluates all clients that have been implemented. Evaluation is carried out after each implementation in the form of health education. Clients 1, 3, 4, and 5 can understand well what students have said about the disease process and dietary recommendations for gout arthritis sufferers easily. However, when evaluating client 2, the client seemed to have difficulty understanding what had been explained through health education. The author suspects that the difference in understanding given to the client has something to do with the age of the client because client 2 is an elderly person. This statement is in line with the theory put forward by (Nursalam, 2016) that age affects a person's perception and mindset. The older you get, the more your grasping power and mindset will develop. In middle age, individuals will play an active role in society and social life so that they can increase knowledge, while for people who are elderly will experience a decline both physically and psychologically.

CONCLUSIONS

Health Counseling about diet in patients with gout Arthritis is a very important nursing action in an effort to provide education to patients and their families so that patients and families can control diet in patients with gout arthritis.

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