

Volume. 7 Number. 1

Period: January - June 2023; page 8-11

p-ISSN : 2580-1112; e-ISSN : 2655-6669

Copyright ©2023

The author owns the copyright of this article

journal homepage: <https://ejournal.akperfatmawati.ac.id>DOI: <https://doi.org/10.46749/jiko.v7i1.112>**Jurnal Ilmiah Keperawatan
Orthopedi (JIKO)**

Article history:

Received: December 29, 2022

Revised: January 9, 2023

Accepted: February 1, 2023

**The Implementation of Health Education Interventions to Improve
Family Knowledge about Pain Management in Gout Arthritis**Ani Nuraeni¹, Sari Puspita²^{1,2}Department of Nursing, Fatmawati Nursing College and Health Sciences, JakartaE-mail: aniharris753@gmail.com**Abstract**

Gout arthritis is a condition characterised by recurrent attacks of the joints accompanied by crystal deposits. Age, gender, medical history, obesity, diet, and alcohol are the main factors of gout arthritis. Pain management is one strategy used to prevent gout. But few clients are informed of how to apply pain management, thus health education is required to improve client awareness. The goal of this case study is to determine the degree of knowledge before and after receiving health education about pain management. It does this through a descriptive technique using a pretest and posttest design. Data collection used a questionnaire on 2 subjects who had been diagnosed with gout arthritis. The results of the case study showed an increase in family knowledge after being given health education, namely subject 1 scored 48% (low knowledge) to 88% (good knowledge), while subject 2 scored 60% (sufficient knowledge) to 80% (good knowledge). This case study recommends the importance of health education to families with gout arthritis on a scheduled basis which is carried out by health workers

Keywords: Family Knowledge, Gout arthritis, Health Education, Pain Management

Introduction

Gout arthritis is a disease characterized by sudden and recurrent attacks of the joints characterized by arthritis which feels very painful due to deposits of monosodium urate crystals that collect in the joints as a result of high levels of uric acid in the blood (hyperuricemia). Joint inflammation in gout is chronic and there are repeated attacks, as a result the joints can become bent or deformed. Gout is a disease with a tendency for heredity to play a role, affecting adult men more often than women (Junaidi, 2020).

According to WHO (2016, in Dzakiyyah, 2022), around 47,150 people worldwide suffer from gout, with an estimated prevalence of 13.6/100,000 people in the United States. Based on the

results of basic health research (Riskesdas) in 2013, the prevalence of joint disorders based on diagnoses by health workers in Indonesia is 11.9%. Based on age characteristics, the highest incidence occurs at the age of 75 years (54.8% and gout affects more women (13.4%) than men (10.3%). This is because many factors are closely related to the disease. Gout in women compared to men includes a family history of gout, kidney disease, history of co-morbidities and previous medical history. The incidence of gout between men and women becomes the same after the age of 60 (Ministry of Health RI, 2018). In 2018, the prevalence of joint disease in DKI Jakarta has decreased by 6.76% and is ranked 17th in Indonesia.

Symptoms of gout arthritis are often not recognized, as a result, many sufferers know when the disease has become acute or chronic, so that treatment becomes more difficult and requires costs a lot. The signs and symptoms that are typical of gouty arthritis are complaints of pain, swelling, and there are signs of inflammation in the metacarpopalangealis joint (Swales & Bulstrode, 2015). If gout is not treated it can cause various problems including kidney disease (especially if there is a history of hypertension), urate crystals accumulate in the interstitial tissue of the kidney, uric acid crystals also form in the collecting tubules, renal pelvis and ureters which will be at risk of forming kidney stones. Uric acid stones can potentially obstruct the flow of urine and cause acute kidney failure (Risnanto & Insani, 2013).

One effort to prevent these complications is pain management both pharmacologically and non-pharmacologically. Non-pharmacological measures to reduce joint pain are warm compresses that can be applied independently at home. In addition to warm compresses, relaxation therapy and rheumatic gymnastics have been shown to increase the release of endocrine hormones which play a role in overcoming substances from sensory neurons so that the process of transmitting pain impulses in the spinal cord becomes obstructed and the sensation of pain will decrease. Furthermore, there is a ginger compress, giving ginger compresses is very easy, namely by grinding one segment of ginger and then applying it to the part that is experiencing pain and then leaving it for a while (Kurniajati & Prana, 2015). However, many people are not familiar with non-pharmacological pain management, and tend to let and only access health services when the pain increases.

The role of nurses is needed to increase public knowledge by providing health education so that they are able to make efforts to deal with pain independently

(Kurniajati & Prana, 2015). Health education is a dynamic process of changing individual behavior, where the change is not just a process of transferring knowledge from one person to another. But that change occurs because of the self-awareness of individuals, groups or communities to learn about it. Health education is an activity that aims to make families able to apply problems and needs and be able to understand what to do about the problem. Health education as a nursing intervention that can be planned to increase family knowledge in caring for family members who experience gout (Setyo, 2015). Based on the research results of Kurniawati and Kaawon (2014), there was a significant increase in knowledge after being given health education about Gout Arthritis. This shows that education and information experience are factors that can influence one's knowledge. Knowledge is very close to education, so someone who has a higher education, the wider the knowledge he has.

Based on this description, the researcher will provide implementation of health education and demonstrate pain management and identify increased knowledge before and after the intervention is given.

Research Methodology

This research method uses a descriptive case study design using a pretest and posttest design which aims to get an overview of the level of knowledge before and after health education interventions. The case study subjects consisted of 2 families selected using purposive sampling with the inclusion criteria the client had been diagnosed with gout arthritis by a health worker, the client lived with his family and was in the Pondok Labu Village area, was able to communicate well and cooperatively and was willing to be the subject of a case study. Measuring the level of knowledge was carried out using a questionnaire consisting of 25 questions given before and after the health

education intervention. Knowledge level result data is ordinal scale categorical data, so it is presented descriptively in the form of percentages.

Results And Discussion

The results of case studies based on subject characteristics are described in table 1 below:

Tabel 1. Characteristics of Case Study Subjects

| No | Characteristics | Subject 1 | Subject 2 |
|----|-----------------|--------------------|--------------------|
| 1 | Age | 54 years | 45 years |
| 2 | Gender | Female | Female |
| 3 | Occupation | Housewife | Housewife |
| 4 | Education | Junior High School | Senior High School |

Table above shows that the characteristics of study subjects based on age include adults and seniors. The subjects who took part in the case study had something in common, namely being female and working as housewives. Based on the level of education, it was found that

there was a difference where subject 1 only graduated from junior high school while subject 2 graduated from high school. The results of the case study regarding the description of knowledge are described in table 2 as follows:

Table 2. Level of Knowledge Before and After the Intervention

| Respondents | Knowledge Level | | | |
|-------------|-----------------|----------|-----------|----------|
| | Pretest | Category | Post Test | Category |
| Subject 1 | 48% | Less | 88% | Good |
| Subject 2 | 60% | Enough | 80% | Good |

Based on table 1 shows an increase in knowledge between before and after being given health education. Prior to health education, subject 1's level of knowledge was 48% in the less category, after being given health education, there was an increase in knowledge to 88% in the good category. Whereas in subject 2 before health education was carried out the knowledge level was 60% in the sufficient category, after being given health education there was an increase in knowledge to 80% in the good category.

The results of this study are in accordance with Natalya, Lamonge and Silva (2019) who found that there was an increase in the knowledge of gout sufferers before and after providing health education about the prevention and treatment of joint pain. Rumaolat (2021) obtained research results which showed that health education had an effect on increasing the knowledge of gout arthritis

sufferers where before being given health education most of the respondents had less knowledge of 73.3% but after being given health education most of the respondents had good knowledge of 76.7%. Based on the results of this study indicate that the process of receiving information after attending health education runs effectively. Respondents began to understand that pain management is very important and needed to reduce pain in gout arthritis.

Health education is a dynamic process of behavior change, where the change is not just a process of transferring material or theory from one person to another nor is it a set of procedures, but this change occurs due to awareness from within the individual, group or society itself (Ummah & Surianti, 2021). Health education is a series of efforts to improve health by disseminating and introducing health messages to the public so that

people want to live healthily. Providing education is one of the efforts that can be made to increase client and family knowledge so that they can make efforts to treat joint pain and prevent the further effects of gout arthritis. This health education can be received and responded well by clients and families. In addition to health education, prevention and treatment of gout arthritis will be more effective if you get support from the family in making efforts to prevent and treat gout arthritis at home.

Conclusions

Health education has a positive impact in increasing knowledge, awareness, willingness and ability of families to live healthily and actively participate in health efforts, especially in preventing complications in gout arthritis.

References

- Junaidi, I, *Mencegah & mengatasi berbagai penyakit sendi - asam urat, reumatik, dan penyakit sendi lainnya*. Jakarta: Rapha Publishing, 2020.
- Kurniajati, S., and Prana, S. A, "Kompres hangat efektif menurunkan nyeri sendi pada penderita asam urat", *Jurnal STIKES*, vol 8(2), 166–175, 2015..
- Kurniawati, E., Kaawoan, A., and Onibala, F, "Pengaruh penyuluhan kesehatan terhadap pengetahuan dan sikap klien gout asthritis di Puskesmas Tahuna Timur Kabupaten Sangihe", *Jurnal Keperawatan*. 2(2), hal 1-8, 2014.
- Kementrian Kesehatan Republik Indonesia, *Riset kesehatan dasar: riskesdas*, Jakarta: Balitbang Kemenkes RI, 2013.
- Kementrian Kesehatan Republik Indonesia, *Riset kesehatan dasar: riskesdas*, Jakarta: Balitbang Kemenkes RI, 2018.
- Natalya, D.M, Lamonge, A.S. and Silva, M, "Efektifitas pendidikan kesehatan terhadap pengetahuan penderita gout arthritis tentang pencegahan dan penanganan nyeri". (Skripsi). repo.unikadelasalle.ac.id, 2019.
- Notoatmodjo, S, *Promosi kesehatan teori & aplikasi*. Jakarta: Rineka Cipta, 2010.
- Risnanto and Insani, U, *Buku Ajar Asuhan Keperawatan Medikal Bedah*, Yogyakarta: deepublish, 2013.
- Rumaolat, W, "Pengaruh pendidikan kesehatan tentang gout arthritis terhadap pengetahuan penderita di Desa Wakasibu Kecamatan Leihitu Barat Kabupaten Maluku Tengah". *Jurnal Tunas-Tunas Riset Kesehatan*. Vol.11 Nomor 2, 77 – 79, 2021.
- Swales, C. and Bulstrode, C, *At a Glance Reumatologi, Ortopedi, dan Trauma*, Jakarta: Erlangga, 2015.
- Ummah, F and Surianti, *Pendidikan kesehatan dan promosi kesehatan*, Bandung: Media Sains Indonesia, 2021