PROFILE OF INDIVIDUAL CHARACTERISTICS REGARDING THE QUALITY OF LIFE OF PEOPLE WITH GOUT ARTHRITIS

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ABSTRAK


Kata Kunci: gout arthritis, karakteristik individu, kualitas hidup

ABSTRACT

People with Gout Arthritis will experience impact that affect daily activities. This disorder will cause discomfort and impact on the quality of life. Quality of life is a person's assessment of his well-being, so that the disturbance felt by people with gout arthritis will change its quality of life. This study aimed to determine the relationship between individual characteristics such as age, gender, duration of suffering gout and type of treatment with the quality of life of gout sufferers. This study uses a quantitative analytic design with a cross-sectional approach. The population in this study were the people with Gout Arthritis who were living in Modoinding. Purposive sampling technique (n=115) used in this study with Isaac and Michael significant level 10%. The statistical test used was Chi-Square and Spearman's Rho with quality of life questionnaire for people with Gout. It was found that the type of treatment had statistically significant with the quality of life of gout sufferers with p value < 0.000. We recommend focusing on more characteristics of people with gout arthritis for the following study.

Keywords: gout arthritis, individual characteristics, quality of life

INTRODUCTION

State the objectives of the work and provide an adequate background, avoiding a detailed literature survey or a summary of the results. Explain how you addressed the problem and clearly state the aims of your study. As you compose the introduction, think of readers who are not experts in this field. Please describe in narrative format and not using sub-chapter. One of society’s most common metabolic diseases is gout or gout arthritis. This disease is caused by high levels of uric acid in the blood. This is caused by eating patterns that are not good, namely consuming foods with high purines. Factors that can cause this disease include gender, age, lifestyle, and genetics, and they are influenced by the environment (Carter, 2020). Based on data from the World Health Organization (WHO), every year, the number of sufferers of gout arthritis has increased. This can be seen from the incidence of gout arthritis, which has increased by up to 4%. This number occurs in western countries where the highest number of sufferers is male compared to female, with an amount of up to 6%. The number of sufferers of gout arthritis in several countries is higher in men, with a prevalence of 10% and 6% in women with an age range of ≥80 years. The annual incidence of gout is 2.68 per 1000 people (Ragab et al., 2017).

In developing countries like Indonesia, hyperuricemia are increasing every year. The 2018 Riset Kesehatan Dasar (Riskesdas) data support this; the prevalence of gout, when viewed from age characteristics, has a high prevalence at age ≥ 75
years (54.8%). There were also more female sufferers (8.46%) compared to men (6.13%) (Riskesdas, 2018). The results of research conducted in Malang stated that there is a problem of gout that does not only occur in the elderly but can be suffered by young people. Low education and female gender are high-risk factors for hyperuricemia in Ngajum District, Malang Regency (Febriyanti, 2018).

Sufferers of gout arthritis will experience several physical complaints, eventually interfering with the sufferer's activities. If this interferes continuously, the sufferer cannot carry out other activities and reduces the sufferer's quality of life. Quality of life is where a person feels comfortable and can maintain his physiological and psychological state in a balanced way in everyday life (Ratmini & Arifin, 2021). The importance of quality of life for gout arthritis sufferers is because having a good quality of life will cause sufferers to be able to manage their illness and maintain their health so that, in the end, they can live comfortably and prosperously.

Individual characteristics such as age, gender, duration of suffering from arthritis, and treatment can impact the quality of life of people with gout arthritis. This study aimed to determine the relationship between individual characteristics such as age, gender, duration of suffering from arthritis, and treatment on the quality of life of sufferers of gout arthritis.

**MATERIALS AND METHODS**
This study used a descriptive analytical research plan with a cross-sectional design. The population in this study was all of people with gout arthritis in the working area of the Modoinding Health Center, with total population 200 people. Purposive sampling technique (n=115) used in this study with Isaac and Michael significant level 10%. The inclusion criteria are people with gout arthritis proofed by examination of Public Health Center’s doctor within 18-65 years old, people who capable to understand the simple verbal instructions, people with gout arthritis who willing to be a respondent. While the exclusion criteria in this study are people with gout arthritis who had another treatment for hypertension, diabetes, and heart diseases.

The instrument used was a profile questionnaire on the characteristics of the respondents consisting of gender, age, duration of suffering gout and type of treatment. Another questionnaire is the Quality of Live (QOL) questionnaire to measure the quality of life of people with Gout. This questionnaire has been tested for validity and reliability in the study conducted by Hirsch et al in 2008. This questionnaire consists of three main part that measure effect of gout in daily activities, duration of the attack of Gout in daily activities and the interruption of the attack of Gout in in daily activities with 24 question that can measure the level of quality of life with poor (<32), fair (32 – 63) and good (64 – 96).

Data collection was carried out by distributing questionnaires and filled in directly by the respondents. Before filled the questionnaire the respondents was given informed consent and got the explanation about the aim of this study and also how to fill the study. The data collected was then analyzed univariately, namely displaying the frequency and percentage of each variable. Analysis was also carried out using a bivariate test to see the relationship between the independent and dependent variables. The test used is the Pearson Chi Square test. Meanwhile, to see the relationship between age and quality of life, a correlational design was used in the Spearman's Rho statistical test with p value < 0.05.

**RESULTS**
After the data is collected, a univariate analysis test is performed for each variable, which is presented in the form of frequency and percentage, as shown in tables below.

Table 1 below shows that the majority of respondents were men, 65 respondents (56.5%) and adults (20 to 60 years) up to 79 respondents (68.7%). Meanwhile, the duration of suffering from arthritis was not much different between those who were ≥ 5 years and those who were < 5 years, where the number was only one difference. The treatment used by most of the respondents was medical treatment, 97 respondents (84.3%). For the quality of life of gout arthritis sufferers, the most was moderate, 102 respondents (88.7%).
Table 1. Description of Respondents’ Individual Characteristic

<table>
<thead>
<tr>
<th>Type of Characteristic</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>65</td>
<td>56.5</td>
</tr>
<tr>
<td>Female</td>
<td>50</td>
<td>43.2</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adolescent</td>
<td>9</td>
<td>7.8</td>
</tr>
<tr>
<td>Adult</td>
<td>79</td>
<td>68.7</td>
</tr>
<tr>
<td>Elder</td>
<td>27</td>
<td>23.5</td>
</tr>
<tr>
<td><strong>Duration of Suffering Gout Arthritis</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 5 year</td>
<td>58</td>
<td>50.4</td>
</tr>
<tr>
<td>≥ 5 year</td>
<td>57</td>
<td>49.6</td>
</tr>
<tr>
<td><strong>Type of Treatment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non therapy</td>
<td>6</td>
<td>5.2</td>
</tr>
<tr>
<td>Alternative medicine</td>
<td>6</td>
<td>5.2</td>
</tr>
<tr>
<td>Conventional medicine</td>
<td>97</td>
<td>84.3</td>
</tr>
<tr>
<td>Mixed (Alternative medicine and Conventional medicine)</td>
<td>6</td>
<td>5.2</td>
</tr>
<tr>
<td><strong>Quality of Life</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>2</td>
<td>1.7</td>
</tr>
<tr>
<td>Fair</td>
<td>102</td>
<td>88.7</td>
</tr>
<tr>
<td>Good</td>
<td>11</td>
<td>9.6</td>
</tr>
</tbody>
</table>

Table 2 below shows that there is no relationship between the gender and Quality of Life of Gout Arthritis patients with p value 0.392.

Table 2. Relationship between Gender dan Quality of Life (QOL)

<table>
<thead>
<tr>
<th>Gender</th>
<th>Poor QOL</th>
<th>Fair QOL</th>
<th>Good QOL</th>
<th>Total</th>
<th>ρ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>2</td>
<td>56</td>
<td>7</td>
<td>65</td>
<td>0.392</td>
</tr>
<tr>
<td>Female</td>
<td>0</td>
<td>49</td>
<td>4</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2</td>
<td>102</td>
<td>11</td>
<td>115</td>
<td></td>
</tr>
</tbody>
</table>

Table 3 below shows that there is no relationship between the age and Quality of Life of Gout Arthritis patients with p value 0.152.

Table 3. Relationship between Age and Quality of Life (QOL)

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>Spearman Correlation</th>
<th>ρ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age dan QOL</td>
<td>115</td>
<td>-0.134</td>
<td>0.152</td>
</tr>
</tbody>
</table>

Table 4 above shows that there is no relationship between the duration of suffering Gout Arthritis and Quality of Life of Gout Arthritis patients with p value 0.091

Table 4. Relationship between Duration of Suffering Gout Arthritis and Quality of Life (QOL)

<table>
<thead>
<tr>
<th>Duration of Suffering Gout</th>
<th>Poor QOL</th>
<th>Fair QOL</th>
<th>Good QOL</th>
<th>Total</th>
<th>ρ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 5 year</td>
<td>1</td>
<td>48</td>
<td>9</td>
<td>58</td>
<td>0.091</td>
</tr>
<tr>
<td>≥ 5 year</td>
<td>1</td>
<td>54</td>
<td>2</td>
<td>57</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2</td>
<td>102</td>
<td>11</td>
<td>115</td>
<td></td>
</tr>
</tbody>
</table>

Table 5 below shows that there is a relationship between the Type of Treatment and Quality of Life of Gout Arthritis patients with p value 0.000

Table 5. Relationship between Type of Treatment and Quality of Life (QOL)

<table>
<thead>
<tr>
<th>Type of Treatment</th>
<th>Poor QOL</th>
<th>Fair QOL</th>
<th>Good QOL</th>
<th>Total</th>
<th>ρ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non therapy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alternative medicine</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conventional medicine</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixed (Alternative medicine and Conventional medicine)</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Quality of life is an individual's perception of life that is related to cultural and value systems which are related to goals, expectations, standards and concerns (Billington et al., 2010). Quality of life is an ideal state that should be achieved by everyone including a balance of physical, psychological, social and environmental dimensions around and disease conditions (Hagita, 2015). One of the diseases that can affect the quality of life is Gout Arthritis. This can happen because the accumulation of crystals due to excessive accumulation of purines in the body will attack the joints, especially the joints in the lower extremities (PRI, 2018). Gout attacks will affect daily activities and affect the quality of life of sufferers (Paramaiswari, 2019). Several previous studies have shown that the quality of life of gout arthritis sufferers is in the poor category (Chandratre et al., 2018) and in the sufficient category (Suryasin, 2016). So the quality of life of gout sufferers needs to be investigated as well as its relation to the characteristics of the gout sufferers themselves. The results of this study show there is no relationship between the gender and Quality of Life of Gout Arthritis patients. This is in line with research conducted by Salmiyanti and Asnindari in 2020 which showed that there was no relationship between gender and the quality of life of gout sufferers (Salmiyanti & Asnindari, 2020).

Furthermore, the respondents in this study were divided into three categories, namely adolescents, adults and the elderly. Where the majority of respondents are in adulthood, namely 20-60 years. This study show there is no relationship between the age and Quality of Life of Gout Arthritis patients. The results of this study are in line with research conducted by Utami in 2014 which showed age had no effect on a person's quality of life (Utami et al., 2014). The same thing also found in a study in 2021 which showed no relationship between age and quality of life for people with gout arthritis (Lumintang et al., 2021). However, there is also research conducted in Iran which found that the quality of life for women is worse than men because women need more psychological and social support than men (Hajian-Tilaki et al., 2017). This is also in accordance with the theory put forward that age will have an effect when a person reaches the age of around 85 years and will experience problems with decreased quality of life. (Salmiyanti & Asnindari, 2020). Research conducted by Lumintang et al in 2021 also shows that the characteristics of adult sufferers with gout arthritis have no relationship with quality of life (Lumintang et al., 2021).

The results of this study show that the length of illness of gout sufferers, both above and below 5 years, has no relationship with the quality of life of gout arthritis sufferers. This requires further research so that it can be seen specifically what duration has influence on the quality of life of a sufferer of gout arthritis. And the last, this study shows that there is a relationship between the Type of Treatment and Quality of Life of Gout Arthritis patients. This is in line with research on the quality of life of people with gout which shows people with gout using medical treatment have a better quality of life (Lumintang et al., 2021). This is also in line with recommendations from the Indonesian Rheumatology Association (PRI) which recommends that a person affected by a gout attack should receive treatment as soon as possible (PRI, 2018).

People with gout who got treatment will be feel better than the one who did not got treatment. This can happen because the treatment they got can decrease the pain especially when they got attack. Feel free from pain can help people with gout reach the better level of quality of life and live their lives better.

The limitation of this study is limited of individual characteristics studied, the methodology that we used to see the relationship between the variable and the scope of this study which only included one regency.

**CONCLUSIONS**

This study shows only the type of treatment that has a relationship with the quality of life. For the next study, we recommend that the study focuses on more characteristics of gout sufferers.

### Table 5. Relationship between Type of Treatment and Quality of Life (QOL)

<table>
<thead>
<tr>
<th>Type of Treatment</th>
<th>Poor QOL</th>
<th>Fair QOL</th>
<th>Good QOL</th>
<th>Total</th>
<th>$\rho$ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not therapy</td>
<td>0</td>
<td>2</td>
<td>4</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Traditional</td>
<td>0</td>
<td>5</td>
<td>1</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Medical</td>
<td>1</td>
<td>91</td>
<td>5</td>
<td>97</td>
<td>$&lt; 0.000$</td>
</tr>
<tr>
<td>Traditional and Medical</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2</td>
<td>102</td>
<td>11</td>
<td>115</td>
<td></td>
</tr>
</tbody>
</table>

**DISCUSSION**

Quality of life is an ideal state that should be achieved by everyone including a balance of physical, psychological, social and environmental dimensions around and disease conditions (Hagita, 2015). One of the diseases that can affect the quality of life is Gout Arthritis. This can happen because the accumulation of crystals due to excessive accumulation of purines in the body will attack the joints, especially the joints in the lower extremities (PRI, 2018). Gout attacks will affect daily activities and affect the quality of life of sufferers (Paramaiswari, 2019). Several previous studies have shown that the quality of life of gout arthritis sufferers is in the poor category (Chandratre et al., 2018) and in the sufficient category (Suryasin, 2016). So the quality of life of gout sufferers needs to be investigated as well as its relation to the characteristics of the gout sufferers themselves. The results of this study show there is no relationship between the gender and Quality of Life of Gout Arthritis patients. This is in line with research conducted by Salmiyanti and Asnindari in 2020 which showed that there was no relationship between gender and the quality of life of gout sufferers (Salmiyanti & Asnindari, 2020).

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https://doi.org/https://doi.org/10.32583/keperawatan.v13i2.1506


