

Description of Family Behavior in preventing Osteoarthritis in Sianipar Sihailhail Village, Balige District

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ABSTRACT

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Osteoarthritis is a clinical syndrome characterized by damage or disruption of the articular cartilage, subchondral bone, joint surfaces, synovium and para-articular tissue, with characteristics of progressive thinning of the cartilage, accompanied by the formation of new bone at the joint edges (osteophytes) and subchondral trabeculae. . Osteoarthritis is a problem that is often encountered in society nowadays. This can be caused by changes in lifestyle and an increase in the life expectancy of the Indonesian population. Along with developments over time, people's lifestyles have also changed. Lifestyle changes that require everything to be done quickly, both in terms of transportation and diet, are also one of the trigger factors for the emergence of Osteoarthritis. The research in this study uses a descriptive research method which aims to determine the description of family behavior in preventing osteoarthritis in Sianipar Sihailhail village, Balige district. The sampling technique used was incidental sampling, so the number of samples that met the criteria was 32 people. The majority of families' knowledge in preventing Osteoarthritis was good, 20 people (62.5%), the majority of families' attitudes in preventing Osteoarthritis were poor, 18 people (56.25%) and Family Action in preventing Osteoarthritis is sufficient for the majority of 20 people (62.5%). Researchers hope that more families will seek information about how to prevent Osteoarthritis.

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1. INTRODUCTION

Osteoarthritis is a non-inflammatory joint disorder with pathological changes in the joint cartilage and subchondral bone and instability resulting in reduced or even lost joint function. Osteoarthritis occurs more often in the joints that support the body, especially the knee joint. Osteoarthritis in the knee joint can cause pain which can interfere with daily life activities and reduce the quality of life [1].

Osteoarthritis is a problem that is often encountered in society nowadays. This can be caused by changes in lifestyle and an increase in the life expectancy of the Indonesian population. Along with developments over time, people's lifestyles have also changed. Lifestyle changes that require everything to be done quickly, both in terms of transportation and diet, are also one of the trigger factors for the emergence of Osteoarthritis. Insufficient physical activity accompanied by excess body weight has the potential to cause greater burden on the joints, especially on the joints that support the body, especially the knee joints [2].

Osteoarthritis is a chronic disease of the joints that most often occurs in families. This disease is characterized by thinning of the joint cartilage, which can cause pain and stiffness in the joints. Even though the majority of people with osteoarthritis are in the family, this does not mean that children, teenagers or adults cannot be affected by this disease. Especially if they have several risk factors, such as a history of joint injuries, anatomical abnormalities, obesity, and so on [3].

Based on WHO data, 40% of the world's population over 70 years old suffers from osteoarthritis. Arthritis Research Campaign data in 2000 showed that 2 million knee OA sufferers

went to general practitioners or hospitals for treatment, while 550 thousand of them suffered from severe knee OA (grade IV). In 2000 in England it was reported that more than 80 thousand sufferers had knee joint replacement surgery with operating costs of £ 405 million [4]

Osteoarthritis is by far the most common type of arthritis, and the percentage of sufferers increases with age. It is estimated that 12.1 of the United States population (nearly 21 million Americans) aged 25 years and over suffer from osteoarthritis. In 2030, it is estimated that 20% of Americans, namely around 72 million people, will reach the age of 65 and over and will be at high risk of suffering from this disease [5].

In Australia in 2002, the estimated national cost of OA was 1% of GNP, reaching \$Aus 2,700/person/year. You can imagine the enormous negative impact caused by bone and joint diseases, including OA, so that the whole world must be aware of it. In fact, from 2001 to 2010 it was planned as the decade of bone and joint disease throughout the world[6]. In Indonesia, OA is the most common rheumatic disease compared to other rheumatic diseases. Based on data from the World Health Organization (WHO), the population suffering from OA in Indonesia is recorded at 8.1% of the total population. As many as 29% of them underwent a doctor's examination and the remaining 71% took over-the-counter pain relievers[7].

In Malang Regency and Malang City, it was found that the prevalence of OA was 10% and 13.5% in Central Java. The incidence of OA was 5.1% of all residents. Osteoarthritis generally attacks elderly sufferers in the weight-bearing joints, especially the knee, hip (coxal), lumbar and cervical joints. In primary/generalized OA which is generally familial, it can also attack the joints of the hand, especially the distal interphalangeal (DIP) and proximal interphalangeal (PIP) joints. The knee joint is the joint most often found to be affected by OA of the many joints that can be affected by OA [8].

Based on data obtained from Hamlet I, the number of families was recorded as 87 people consisting of 49 men and 38 women. In 2013, based on data obtained from the supporting community health center in Bahbirung Ulu Village, the total number of patients experiencing osteoarthritis was 103 people, while in Bahbirung Ulu Village in particular there were 53 families who were at risk of experiencing osteoarthritis. Based on the results of interviews conducted by researchers in the initial survey of 20 families regarding how to deal with Osteoarthritis and among the 20 families, it turned out that 9 families knew how to deal with osteoarthritis by preventing obesity and regular exercise, while 11 families did not understand how to deal with osteoarthritis.

In osteoarthritis, the surface of the cartilage layer is eroded and worn. This causes the bones under the cartilage to rub against each other, causing pain, swelling, and limited joint movement. Some time later, the joint may lose its normal shape. There are also small bone deposits, called osteophytes or "bone spurs," that grow at the edges of the joints. Fragments of bone or cartilage can break and float in the joint space, causing pain and further damage [9]

The factors causing osteoarthritis occur due to chondrosis (cells that form proteoglycans and collagen in joint cartilage) failing to maintain a balance between degradation and synthesis of the extracellular matrix, resulting in changes in the diameter and orientation of collagen fibers which change the biomechanics of the cartilage, which makes the joint cartilage lose its compressibility properties. special. In some rare cases, a defective gene is found to be the cause of a familial type of osteoarthritis. Meanwhile, in secondary osteoarthritis, the cause can be hormonal, metabolic, trauma, inflammation or anatomical disorders [10]

Osteoarthritis sufferers usually experience joint pain and stiffness. The joints most commonly affected are the joints at the fingertips (near the nails), thumbs, neck, waist, knees and hips. In some people, osteoarthritis is relatively mild and has little effect on daily life, in others osteoarthritis causes significant pain and [10]

Management of Osteoarthritis must be multifocal and individualized. The goal of management is to prevent or prevent further damage to the joint, and to treat pain and stiffness to maintain mobility. Protecting the joint from additional trauma is important to slow the course of this disease. Evaluation of work patterns and daily activities helps to eliminate all activities that increase the stress of heavy loads on the affected joint [11].

One of the most popular alternative pain relief methods is acupuncture, a practice from Chinese ancestors in which fine needles are inserted into certain points in the body. Based on funds funded by The National Center For Complementary Alternative Medicine, acupuncture has been proven to help reduce pain and improve function in individuals suffering from knee osteoarthritis when used as an additional treatment. One ongoing study compares the benefits of acupuncture to relieving pain that makes exercise difficult and, therefore, improving the effectiveness of traditional exercise therapy[11].

Knowledge about healthy lifestyles can prevent the emergence of various diseases. For families who suffer from disease disorders, implementing a healthy lifestyle according to the type of disease will really help control the disease they suffer from, which in the end can improve their quality of life. In order to remain active until old age, from a young age a person needs to adopt and maintain a healthy lifestyle by consuming nutritionally balanced food, doing physical activity/exercise correctly and regularly and not smoking [12]

Exercise is recommended for families with osteoarthritis to strengthen muscle and joint mobility, improve functional capacity, relieve pain and stiffness and prevent further deformity. Training programs are structured based on individual status. Exercise should not be a burden on the body, for example cycling and exercising in water [13]

2. METHOD

The research in this study uses a descriptive research method which aims to determine the description of family behavior in preventing osteoarthritis in Sianipar Sihailhail Village, Balige District. The population in this study were all families at risk of experiencing osteoarthritis in Sianipar Sihailhail Village, Balige District, totaling 32 people. The sampling technique in this research is incidental sampling, that is, anyone who meets the researcher by chance can be used as a sample, if it is deemed that the person they meet by chance is suitable as a data source. Researchers develop criteria for respondents as study subjects and are considered representative. The sample criteria in research are based on inclusion and exclusion criteria. Before the data collection process is carried out, the initial stage in this process is to make preparations for smooth implementation in the form of a research permission letter and a reply permission letter from the place where the research is carried out. Before asking for the respondent's willingness, the researcher first explained that the research being conducted would not have a negative impact on the physical or mental health and that the confidentiality of the respondent was strictly maintained. Before this exploration process, the researcher approached the respondents to explain the meaning and use of the Informconsent to the respondents. The measurement technique for each variable is by asking 12 questions, namely 4 for knowledge, 4 for attitudes and 4 for actions in the form of questionnaires to respondents and using the Gultman scale, namely if the respondent's answer is correct, give 1 while the wrong answer is given 0 using the formula. range formula

$$I = \frac{\text{Range}}{K} = \frac{\text{Maximum score} - \text{minimum score}}{4} = \frac{12}{4} = 3$$

Information

I : Intervals

Range : Minimum score – maximum score

K : Number of Classes

Meanwhile, to find out the percentage of respondents' answers through the respondent criteria using the Determinant formula by Setiadi (2007), namely:

$$P = \frac{F}{N} \times 100\%$$

Information

P : Persentase

F : Number of correct answers

N : Number of questions

3. RESULTS AND DISCUSSION

Results

After conducting research on 32 respondents with the title Description of Family Behavior in Preventing Osteoarthritis in Sianipar Sihailhail Village, Balige District, it is presented in the following table.

General Data

Table 1 Frequency Distribution of Respondents Based on Gender regarding Osteoarthritis Prevention in Families in Sianipar Sihailhail Village, Balige District

No	Gender	Score	Percentage (%)
1	Man	18	56,25
2	Woman	14	43,75
Total		32	100

Based on the table above, it can be seen that there were 18 male respondents (56.25%) and 14 female respondents (43.75%).

Table 2 Frequency Distribution of Respondents Based on Education regarding Osteoarthritis Prevention in Families in Sianipar Sihailhail Village, Balige District

No	Education	Score	Percentage (%)
1	Finished elementary school	7	21,87
2	Finished high school	11	34,37
3	Finished high school	9	28,12
4	Academy/college	5	15,62
Total		32	100

From the table above, it can be seen that there were 7 respondents who had completed elementary school (21.87%), 11 people had graduated from junior high school (34.37%), 11 people had graduated from high school (28.12%), and 5 people had graduated from academy/university. people (15.62%).

Table 3 Frequency Distribution of Respondents Based on Occupation regarding Osteoarthritis Prevention in Sianipar Sihailhail Village, Balige District

No	Work	Skor	Persentase (%)
1	BHL	10	28,75
2	Trade	6	18,75
3	Farmer	16	52,5
Total		32	100

From the table above, it can be seen that 28 of the 32 respondents worked as BHL workers (43.75%), 6 people in trade (18.75%). and 16 people in the private sector (52.5%).

Special Data

Table 4 Distribution of Respondents Based on Family Knowledge in Preventing Osteoarthritis in Sianipar Sihailhail Village, Balige District

No	Knowledge Category	Amount	Persentase (%)
1	Good	5	15,62
2	Enough	20	62,5
3	Bad	7	21,87
Total		32	100

From the table above, it can be concluded that the majority of respondents' family knowledge is fairly knowledgeable, 20 people (62.5%) and the minority with poor knowledge, 7 people (21.87%).

Table 5 Distribution of Respondents Based on Family Attitudes in Preventing Osteoarthritis in Sianipar Sihailhail Village, Balige District

No	Attitude Category	Amount	Persentase (%)
1	Good	5	15,62
2	Enough	9	28,12
3	Bad	18	56,25
Total		32	100

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From the table above, it can be concluded that the attitude of the majority family is poor, 18 people (56.25%) and the minority attitude is good, 9 people (28.12%).

Table 6 Distribution of Respondents Based on Family Actions to Prevent Osteoarthritis in Families in Preventing Osteoarthritis in Sianipar Sihailhail Village, Balige District

No	Action Category	Amount	Persentase (%)
1	Good	5	15,62
2	Enough	20	62,5
3	Bad	7	21,87
Total		32	100

From the table above, it can be concluded that the majority of family actions are good, 20 people (62.5%) and the minority are bad, 7 people (21.87%).

Discussion

After the author conducted research by collecting data through tests and carrying out data analysis techniques on respondents. So the author will discuss an overview of family knowledge in preventing osteoarthritis in Bahbirong Ulu village, Sidamanik district, 2016.

Family Knowledge in Preventing Osteoarthritis in Sianipar Sihailhail Village, Balige District

Shows that of the 32 families who were respondents, the majority of families' knowledge about preventing osteoarthritis was sufficient for 20 people (62.5%). The reason for the low level of family knowledge is because the family does not try to find information about the dangers of Osteoarthritis and never participates in outreach activities at the nearest health services such as the Community Health Center.

Family Attitudes in Preventing Osteoarthritis in Sianipar Sihailhail Village, Balige District

Shows that of the 32 families who were respondents, 18 people (56.25%) showed that the majority of families' attitudes about preventing Osteoarthritis were bad.

Family Actions in Preventing Osteoarthritis in Sianipar Sihailhail Village, Balige District

Shows that of the 32 families who were respondents, 20 people (62.5%) indicated that the majority of family actions regarding the prevention of Osteoarthritis were sufficient. The low level of good actions in this case does not mean that good attitudes are good actions. But a good attitude is not necessarily a good action.

4. CONCLUSION

Based on the results of research entitled "Description of Family Behavior in Preventing Osteoarthritis in Sianipar Sihailhail Village, Balige District, it can be concluded based on the researchers' assumptions as follows The majority of families' knowledge about preventing Osteoarthritis is sufficient. The reason for the low level of family knowledge is because the family does not try to find information about the dangers of Osteoarthritis and never participates in outreach activities at the nearest health services such as the Community Health Center. Family attitudes show that the majority of respondents have bad attitudes. The low level of bad attitudes in the results of this study may be related to the reaction to the questionnaire statements that were distributed. This is in accordance with the theory of Notoatmodjo (2012) which states that attitude is a reaction or response that is still closed from a person to a stimulus or object. Family actions of respondents. The majority of respondents have sufficient actions. The low level of good actions in this case does not mean that good attitudes are good actions. But a good attitude is not necessarily a good action. This is in accordance with Fitriani's (2011) theory which states that attitudes do not necessarily manifest in an action, to realize an attitude into a real action, supporting factors or enabling conditions are needed, including facilities. In this case it is based on very low family knowledge. Based on Fitriani's theory (2011), knowledge or cognitive is a very important domain for shaping a person's actions..

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