

Description Of Family Knowledge About Diabetic Foot Treatment In Patients With Diabetes Mellitus At Aisiyah Kudus Hospital

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ABSTRACT

Diabetic foot is one of the complications of diabetes mellitus and is the main reason DM sufferers undergo treatment in hospitals which are expensive. Foot care is a primary prevention effort and early detection is done to prevent further complications. Family knowledge about diabetic foot care will effect on diabetic foot care in family members whosuffer from diabetes mellitus. This study purpose to describe the level of family knowledgeabout diabetic foot care in people with diabetes mellitus at Aisiyah Hospital, Kudus. The research design used in this research is descriptive with a cross-sectional approach. The sampling method used was purposive sampling with a sample size of 42 respondents. Data collection was carried out using a questionnaire consisting of 14 questions about knowledgeof diabetic foot care. Based on the research results obtained, it was found that family knowledge about foot care was in the less category by 35 respondents (83.3%).

Keywords: Knowledge, Family, Foot care

INTRODUCTION

Diabetes mellitus is a disease that has increased every year, according to the International Diabetic Federation (IDF, 2015) the global prevalence rate of people with diabetes mellitus is 7.2% -11.4% each year. Based on the 2018 Central Java Provincial Health Profile, the prevalence of DM is 20.57%, occupying the second largest proportion of PTM after hypertension and making non-communicable disease control a priority in Central Java. Based on the results of initial data collection from the Kudus City Health Office in 2021, the incidence of DM was 23,495 cases.

Excess blood sugar that lasts a long time even for years (chronic) will result in long-term organ damage, dysfunction or failure of organs such as the eyes, kidneys, nerves, heart and blood vessels. The prevalence of DM sufferers always increases every year, the complications caused are also increasing. Ulceration of the lower leg either with or without infection is a complication that causes tissue damage that causes diabetic foot. Diabetic foot manifestations include cellulitis, ulcers, gangrene, and osteomyelitis. The impact of foot ulcers alone can increase morbidity and mortality and reduce the quality of life of patients (Parkeni, 2021).

The low level of knowledge impacts the prevention of diabetes complications. This shows how big the influence of knowledge is on controlling a disease and causes DM sufferers to often experience injuries with deteriorating conditions (Safitri, 2019). Lack of knowledge will affect individual and family motivation to participate in health education, decreasing social and family support.

Based on interviews with 10 patients with diabetes mellitus, 2 of them had foot ulcers. 2 patients had calluses on the soles of their feet and cleaned the calluses when they were thick, 4 patients who had DM for more than six years said they did not really care about their feet because they did not know about foot care, 2 of them only focused on diet, OHO therapy, and/or insulin therapy so that their blood sugar controlled. This provides an overview, knowledge and skills of diabetic sufferers who are lacking in foot care. The role and support of the family is very important to encourage patients and minimize diabetic foot complications that are getting worse. Good knowledge will result in good foot care and according to the procedure, poor knowledge will worsen the patient's foot condition until an amputation occurs.

Based on the description of the background above, the authors are interested in conducting research on "Description of the Level of Family Knowledge About Diabetic Foot Care in Patients with Diabetes Mellitus at Aisyiyah Hospital, Kudus".

METHODS

The type of research used is a quantitative descriptive research method with a cross-sectional approach. Sampling using purposive sampling obtained a number of 42 respondents. This study used a questionnaire sheet instrument which contained 14 questions about knowledge of foot care at Aisyiyah Kudus Hospital

RESULTS AND DISCUSSION

Results

Table 1.
Distribution Frequency Respondents Based on Respondents' Age at Aisyiyah Kudus Hospital

Age	Frequency	Percentage
26-35	15	35.7%
36-45	12	28.6%
46-55	10	23.8%
56-65	5	11.9%
Total	42	100.0%

Based on table 1, the frequency distribution of the results of 42 respondents at Aisyiyah Kudus Hospital showed that the highest number of early adults was 15 respondents (35.7%).

Table 2.
Frequency Distribution Respondents Based on Gender at Aisyiyah Kudus Hospital

Gender	Frequency	Percentage
Man	17	35.7%
Woman	25	28.6%
Total	42	100.0%

Based on and Table 2. The distribution of the frequency of results from 42 respondents. Gender at Aisyiyah Hospital, Kudus, the most results were women with a total of 25 respondents (59.5%).

Table 3.
Frequency Distribution of Respondents Based on Latest Education at Aisyiyah Kudus Hospital

Classification	Frequency	Percentage
Elementary School	6	14.3%
Junior High School	13	31.0%
Senior High School	14	33.3%
College	9	21.4%
Total	42	100.0%

Based on table 3 the distribution of the frequency of results from 42 respondents based on their last education at Aisyiyah Kudus Hospital,

the highest education results were SMA as many as 14 respondents (33.3%).

Table 4.
Frequency Distribution of Respondents based on Occupation at Aisyiyah Kudus Hospital

Work	Frequency	Percentage
Work	39	92.9%
Doesn't work	3	7.1%
Total	42	100.0%

Based on table 4.4 the distribution of the frequency of results from 42 respondents based on work at Aisyiyah Kudus Hospital, the highest results were obtained from working with 39 (92.9%) respondents.

Table 5.
Frequency Distribution of Family Knowledge Levels About Diabetic Foot Care at Aisyiyah Kudus Hospital

Classification	Frequency	Percentage
Good	1	2.4%
Enough	6	14.3%
Not enough	35	83.3%
Total	42	100.0%

Based on table 4.5 of the frequency distribution, it is known that the level of family knowledge about diabetic foot care at Aisyiyah Hospital is less knowledge with a total of 35 respondents (83.3%).

DISCUSSION

Characteristics of Respondents by Age

The outcome showed that the average age of the 42 respondents was 26-35 years old (35.7%). According to Budiman (2013) age is a factor that influences a person's knowledge and attitudes, some people who are still young have an interest in learning more and are better at responding to information compared to old people.

Characteristics of Respondents based on Gender

The outcome showed that of the 42 respondents, most were female, namely 25 respondents (59.5%) of respondents. So it can be concluded that most of the families of DM patients are female. These results are in line with Permadani's research (2017), that female family members (mothers) are family members who are mostly in charge of caring for DM patients, namely as much as 62.1%, compared to male family members.

Characteristics of Respondents by Occupation

The outcome showed that of the 42 respondents who worked the most, 39 (92.9%) respondent. Information was obtained that the lack of knowledge obtained due to the employment status of the respondents, most of whom worked as laborers and traders resulted in a lack of time to socialize and join the community so that they could not attend the counseling that had been held. A person's job affects the level of physical activity, especially when one of the family members has Diabetes Mellitus (Muneneng, 2018).

Characteristics of respondents based on Education

The outcome showed that the education of the 42 respondents on average with good knowledge was mostly high school graduates with a total of 14 respondents (33.3%). Good knowledge affects one's education. Education is a process of developing all human abilities and behavior through knowledge. Through education, humans are considered to be able to gain knowledge about the signs of a wound, up to its complications. The higher the education, the higher the quality of human life because higher education will produce good knowledge that makes quality life (Notoatmodjo, 2012). According to Yusra (2011) that the level of education influences a person's behavior in seeking care and treatment for the disease he is suffering from, as well as choosing and deciding what action or therapy to take to deal with his health problems. Highly educated people also have high knowledge related to health.

With this knowledge, people will have consciousness to maintain the health of their families who have been diagnosed with DM (Masuneneng, 2018). Based on the results of research by Muneneng (2018), respondents who had less knowledge experienced more diabetic injuries because the higher the knowledge the respondents had, the higher the awareness to pay attention to health status. The outcome of this study are in accordance with the outcome of research by Herlina (2016), Apriliyani (2018), Wulandini (2016), which states that there is a significant relationship between the level of knowledge

and the incidence of diabetic injuries (p value $< \alpha$ 0.05). Based on the results of research by Muneneng (2018), respondents who had less knowledge experienced more diabetic injuries because the higher the knowledge the respondents had, the higher the awareness to pay attention to health status. The outcome of this study are in accordance with the outcome of research by Herlina (2016), Apriliyani (2018), Wulandini (2016), which states that there is a significant relationship between the level of knowledge and the incidence of diabetic injuries (p value $< \alpha$ 0.05). Based on the outcome of research by Muneneng (2018), respondents who had less knowledge experienced more diabetic injuries because the higher the knowledge the respondents had, the higher the awareness to pay attention to health status. The outcome of this study are in accordance with the outcome of research by Herlina (2016), Apriliyani (2018), Wulandini (2016), which states that there is a significant relationship between the level of knowledge and the incidence of diabetic injuries (p value $< \alpha$ 0.05).

Knowledge

Knowledge or cognitive is a very important domain for the formation of one's actions (Notoatmodjo, 2015). Thus, if a person's knowledge is lacking, it will result in the formation of less actions or actions that are not in accordance with what should be done. Likewise, if there is a lack of knowledge about diabetic foot care among family members with diabetes, it will result in the family not being able to help their family members carry out proper diabetic foot care or not even taking diabetic foot care. The outcome of research in Spain conducted by Calle et al (2011), found that the group that did not do diabetic foot care had 13 times the risk of developing diabetic ulcers compared to the group that did regular diabetic foot care. This is also in line with the theory, regular diabetic foot care will prevent or reduce of chronic complications in the feet (PERKENI, 2006).

From research conducted at Aisyiyah Kudus Hospital regarding family knowledge about Diabetic Foot care for 42 respondents, it was found that as many as 35 (83.3%) respondents had knowledge in the less category, this is in line with Herlina's research (2016) there were 49 respondents (77.8 %) lack knowledge about diabetic wound prevention. According to Apriliyani (2018), in his research he also stated that knowledge has an important role in providing information about the causes and prevention of Diabetic Wounds.

This is influenced by several factors including age, education, occupation, and information. Respondents who have less knowledge are mostly in the age range of 26-35 years. Information was obtained that the lack of knowledge obtained was due to the employment status of the respondents, most of whom worked resulted in a lack of time to socialize and join the community so that they could not attend the counseling that had been held. A person's job affects the level of physical activity, especially when one of the family members has Diabetes Mellitus (Muneneng, 2018).

Knowledge is an important part of shaping behavior. The outcome of this study are in line with Diani's research (2013) that clients with type 2 diabetes who have good knowledge have better foot care practices compared to clients with type 2 diabetes who lack knowledge. High knowledge can help overcome confusion, increase self-confidence and motivate for better self-care management. (Cahyanti et al., 2023)

Based on the outcome of other interviews found during the study, most of the respondents had never received counseling about foot care. One of the factors that caused this to happen was that most of the respondents had a high school educational background, this illustrates that the level of education affected the understanding of the respondents' families about the counseling provided. This is supported by research conducted by Sigit, (2018) who reported that low family education of DM patients has low knowledge about preventing diabetic injuries.

Training and providing education by the family is also very important and necessary so that information can be disseminated evenly to the public who may have never received this material at all. This is proven by research (Siagian, Ottar, & Palandeng, 2015) which reveals that it is very important to carry out counseling programs for both families and people with DM so that they can know the right and correct handling in carrying out treatment either for themselves or for others. Counseling is also important because it is a preventive step that can be taken to reduce the number of incidents or new cases of DM (Sjattar, 2019).

CONCLUSIONS

Conclusion

Based on the results of the study entitled "Description of Family Knowledge about Diabetic Foot Care in Patients with Diabetes Mellitus at Aisyiyah Kudus Hospital" it was found that the level of knowledge of the respondent's family about

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