

Family experience in caring family members with diabetic foot ulcer: Phenomenological study

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ORIGINAL ARTICLE

Family experience in caring family members with diabetic foot ulcer: Phenomenological study

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KEYWORDS

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Caring;
Family members

Abstract

Objective: This study aims to determine the family experiences in treating members with diabetic foot ulcer.

Method: A qualitative study with descriptive phenomenology design, was conducted at Central Tapanuli Regency, and the participants were diabetic patients with foot ulcer. Furthermore, seven participants were involved accidentally using the snowball sampling method, and the data was collected during an in-depth interview.

Results: The results showed 5 themes, which includes (1) Ability of the family to fulfill the health responsibilities of its Members, (2) Efforts to Control Blood Sugar, (3) Treatment of Diabetic Foot Wounds, (4) Psychological responses during care, (5) The effects of foot ulcer treatment, diabetes in the family.

Conclusions: The involvement of family members by caring for people with diabetes and foot ulcer plays an important role in supporting system. This study provides an understanding on the role of the family in caring for the members with diabetic foot ulcers.

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Background

Diabetes mellitus (DM) is a metabolic disease that causes high blood sugar level with an increasing number of patients. Population of people with the illness in the world was about 424.9 million in 2017 and is projected to increase to 628.6 million in 2045. Indonesia has 10.3 million cases in patient between the age of 20--79 in 2017 and will increase to 16.7 million patients in 2045.^{1,2}

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Diabetic foot ulcers are complication that often occurs, which are chronic wounds in the area below the ankle that increases morbidity, mortality, and reduce the quality of life of the patient.² Furthermore, it is considered as the main source of disease and leading cause of hospitalization for diabetics.³ It can also lead to infection, gangrene, amputation and even death, when not treated properly.

According to the research conducted in 2018 on 461 DM patients, 207 had diabetic foot problems with an average age of 60. Furthermore, according to data from the Centers for Disease Control and Prevention of 29.1 million people with diabetes, 70,000 people had bone amputations due to complications from neuropathy, peripheral arterial disease, and infected diabetic foot ulcers. Lower extremity amputation is the main fear of those affected in terms of blindness, death, diabetic foot infections, and chronic kidney disease. Patients with diabetic foot ulcers are facing one of the most difficult and stressful moment of their lives.^{4,5}

According to a research concluded that family support is important for sick members, and providing support in the form of warmth and friendliness such as emotional support related to glucose monitoring, diet and exercise can increase patient self-efficacy.⁶ Therefore, it promotes self care hygiene and a good quality of life. However, extensive research to find out how family care for members with diabetic foot injuries is rarely carried out, and this research is interested in the family experiences in caring for members with diabetic foot ulcers.

Research methods

The research design in this study was descriptive phenomenology. Furthermore, there were 7 participants, which were selected through accidental sampling technique with the snowball sampling method.

Data collection was carried out as the main research instrument, and the data were collected through in-depth interviews with a voice recorder based on guidelines with open-ended questions and field notes. The interview guide was made and the validity test was carried out on 2 administrative nursing experts in Medan and Padangsidimpuan. The CVII (content validity index) of the interview guide is 0.75. The literally written data was analyzed using content analysis.

Result

The results of this study was identified 5 themes, for more details, see the Table 1.

Theme 1: the family's ability to carry out health duties for members.

The following excerpt is expressed:

a. Identifying problems.

"As far as I know my wife's disease is due to high sugar level"

"It's not that I have hereditary disease, because I used to smoke, but I didn't care about my food".

b. Detection of the manifestations of diabetic foot ulcer

"Yes . . . first of all the foot started swelling, then after a week, it became a serious illness"

Theme 2: family efforts to control blood sugar.

The following excerpt is expressed:

a. Choose a low glucose diet

"When this diabetes disease is said to be eaten by sweet potatoes, do not eat rice, it is good to eat sweet potatoes/ taro"

"My father eat brown rice, then you can't eat meat, bro, you have to keep your diet, sis"

b. Encourage physical exercise

"If it's early in the morning, I normally go for a walk at 6 o'clock"

c. Provide non-pharmacological treatment

"Traditional medicines like that, like boiled African leaves and drink the water"

d. Manage stress

"Ma'am, rest as much as possible, don't think about it here and there"

e. Routine control for medical personnel

"I go the hospital once in a month. Haa that . . ."

f. The use of medications

"That's the sugar medicine, what the same I don't know what the medicine is called"

g. Self control

"I tested my sugar myself, the needles are there, I bought a diocotic . . . that is checked once a week".

Theme 3: diabetic foot ulcers care The following excerpt is expressed:

a. Medical therapy

"Therefore . . . the treatment for that day was medical, the mother went to the hospital. Ready to give salap, given all Nyetu-salap, clean salt with hot water"

Complementary therapy

"Usually . . . who is that friend again . . . what is the name (while closing his eyes) the language of Nias, head of tuak flute".

Shaman therapy

"He said what is it, these nine kinds of ingredients (egg shells, broom sticks, thatch roofs, incense, rotten, rotten mats, cockroach leaves, shell eyes, used for incubating chickens)"

Theme 4: family psychological response during care.

The occurrence of an inappropriate response like the following quote:

Table 1 Content analysis.

Theme 1: Family ability in carrying out health tasks of family members	
Sub themes	Category
1. Know the health problems of family members.	1.1 States that diabetic foot wound disease is due to increased sugar levels
2. Recognize the clinical manifestations of diabetic foot ulcers	1.2 Declare that diabetic foot wound is due to unhealthy lifestyles such as smoking and excessive eating.
	2.1 Stating that foot wound disease originated from swelling of the foot
Theme 2: Family efforts to control blood sugar	
Sub themes	Category
1. Choose a diet that contains low glucose.	1.1 Feeding taro sweet potato diet
2. Encourage physical exercise	1.2 Give a brown rice diet
3. Provide non-pharmacological treatment	2.1 Walking sports
4. Manage stress	3.1 Giving traditional concoctions of series leaves, avocado leaves, and sikaduduk leaves orally
5. Routine control to medical personnel	3.2 Giving traditional ingredients of betel leaf orally.
6. Using medical drugs	3.3 Giving a traditional herb peg bumi leaves orally
7. Self control	4.1 Controlling thoughts
	5.1 Control to the hospital
	5.2 Control to Midwives
	6.1 Using drugs from the hospital
	6.2 Buying drugs from a pharmacy
	7.1 Controlling blood sugar levels at home independently.
Theme 3: Diabetic foot ulcer treatment	
Sub themes	Category
1. Medical therapy	1.1 Midwife's wound care
2. Complementary therapy	1.2 Self-care of the wound
3. Shaman therapy	2.1 Caring for wounds using herbal medicines
	3.1 Caring for wounds using herbal remedies from traditional healers
Theme 4: Family psychological response during caring	
Sub themes	Category
Maladaptive Responsibility	1.1 Feelings of sadness while caring for a family member with a diabetic foot ulcer
	1.2 Feelings of tiredness while caring for family members with diabetic foot ulcers
	1.3 There is stress while caring for family members.
	1.4 Feelings of hurt during caring for a family member with diabetic foot ulcer
Theme 5: Impact of diabetic foot care on families	
Sub theme	Category
1. The emergence of economic problems	1.1 The high cost of maintenance
	1.2 Reduced Income
2. Shifting roles in the family	2.1 The wife changes roles as the backbone of the family
	2.2 Children change roles as the backbone of the family.
	2.3 Husband takes the role of wife

“How is it supposed to be transmitted, it’s a little stressful . . . when the crew was already poor they don’t want to add any more diseases, it’s stress that happens.”

Theme 5: impact of diabetic foot wound care on families.

a. Economic problems such as the following participant quote:

“In terms of economics, our business used to be very big, but ran out due to medical treatment, if the hundreds of millions are gone”

b. Shifting roles in the family

“My initial job was . . . boiling, processing fish, since my leg is diabetic, my son replaces . . . does . . .!”

Discussion

Based on the results, there were 5 themes.

The first was that the family should recognize the problem of diabetic foot ulcers, at the basic level. This emerges from the various quotes from the participants where the family was able to identify the diabetic foot ulcers and the clinical manifestations and the ability to identify problems

and their manifestations is the foundation to provide adequate care. The longer a person has health problems, the better their understanding about the illness. This is also in line with Alshammari et al. which states that good knowledge lead to good practice in the treatment of diabetic foot ulcer.⁷

The second theme was family efforts to control blood sugar levels. The efforts to control blood sugar levels are largely related to lifestyle regulation. This is possible because the support from the level of family knowledge about diabetic foot ulcers is on the right track. The lifestyle regulation consists of choosing a diet that contains low glucose, encouraging physical exercise, providing non-pharmacological treatment, stress control, routine control of medical personnel, using medical drugs and also self-control.

Type 2 diabetes mellitus is a disease caused by a long life style, such as poor diet, lack of physical activity and high stress. The most important thing people with the illness can do to keep it from getting worse is lifestyle adjustments, and changes are an important key to good blood sugar control.⁸

The third theme was diabetic foot ulcer treatment consisting of 3 sub-themes, namely medical, complementary and traditional healing therapy. The participants often use different types of therapy with different perspectives. It shows that families and people with diabetic foot ulcers are trying to find alternatives that go beyond medical therapy. None of the participants focused on a single therapy.

The fourth theme was the family psychological response during treatment. This is in line with the research, which reported that the psychological response of the family as a caregiver is in the form of feelings of shock, stress, anger, fear, sadness, and worry. This is due to the heavy burden the caregiver suffers in caring for a sick member.⁹

According to Folkman's study, stress is an internal state that can be caused by physical guidance from the body (disease conditions, exercise, etc.) or by environmental and social conditions that are considered to be dangerous, uncontrollable or exceeding the individual's ability to perform. Stress begins with a warning reaction (alarm reaction) to a threat, which is indicated by automatic body processes such as an increase in heart rate, followed by a rejection reaction to the stressor and will reaches the stage of exhaustion when the individual is unable to survive.¹⁰

The last theme was impact of diabetic foot ulcer treatment on families. This is in line with the research, which reported that families in caring for members with diabetes mellitus have several experiences, including the emergence of economic issues such as costs to cover the Medical service needs, costs for treatment on daily basis, limited social activities, and disruption in household and work routines.¹¹

Conclusion

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Based on the research above, it can be concluded that there are 5 themes of caring for members with diabetic foot ulcers in the family experiences, namely (a) the ability of the family to carry out health duties for members, (b) family efforts to control blood sugar, (c) treatment of diabetic foot ulcers, (d) family psychological response as a caregiver and (e) the impact of diabetic foot ulcer care on the family.

Conflict of interest

The authors declare no conflict of interest.

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