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Self Efficacy of Diabetes Mellitus Patients with Gangrene In Process Adaptation Theory of Calista Roy

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ABSTRACT

Patients with diabetic gangrene takes care intensively and old. The length of time the treatment, chronic disease course and a feeling of helplessness because of the dependency causes negative psychological reactions such as anger, anxiety, irritability and the emergence of the negative perception of his ability in the process of healing. The purpose of this study was to determine the relationship of self-efficacy diabetes mellitus patients with gangrene in the process of adaptation to the patient based on the theory of Calista Roy in RSM Ahmad Dahlan Kediri. The design study is a quantitative research design with cross-sectional, population study were all patients with Diabetes Mellitus in room mekah 3 In RSM Ahmad Dahlan Kediri totaling 45 people. Samples were taken using purposive sampling technique sampling of 30 respondents. The independent variable was self-efficacy and the dependent variable is the adaptation process. Test statistical analysis using chi-square test. Results of research on self-efficacy showed that most of the respondents have a Self Efficacy low that as many as 18 (60%). While in the process of adaptation showed that most of the respondents with Maladaptive adaptation process that as many as 18 (60%). Results of data analysis obtained p value = 0,000 < α = 0,05 so that H_0 rejected and H_1 accepted as such there is a relationship between self-efficacy diabetes mellitus patients with gangrene in the process of adaptation to the patient based on the theory of Calista Roy in RSM Ahmad Dahlan Kediri. Individuals with high self efficacy will attempt to recover. In individuals with high self-efficacy will appear positive coping mechanisms against her condition so that individuals can adapt to conditions.

KEYWORDS: Self-Efficacy, Adaptation Process, Calista Roy Theory

1 INTRODUCTION

Diabetes mellitus is a heterogeneous group of disorders characterized by increased levels of glucose in the blood or the occurrence of hyperglycemia. One of the complications of diabetes mellitus that often occurs in people with diabetes mellitus is the occurrence foot injuries, namely the onset of ulcer and if not treated can develop into diabetic gangrene. Diabetic gangrene, is wound on a leg with blackish red colour, and smells bad, due to blockage of blood vessels that occurs in medium or large limbs, if not treated intensively can cause tissue death and the impact had to do amputations [1].

Patients with diabetic gangrene requiring a long and intensive care. The length of time for the treatment, chronic disease course and a feeling of helplessness because of the dependency causes negative psychological reactions such as anger, anxiety, easily offended and the emergence of the negative perception of his ability in the process of healing. This is due to people are not being able to use constructive/adaptive coping mechanisms, so it appears ineffective adaptation response [2]. Individuals with a negative perception of the abilities referred to as individuals with low self-efficacy. Individuals, who have a low self-efficacy / lack of confidence in his ability to be cured, tend to focus on the inadequate perceived. The low self-efficacy will likely weaken even stop individual efforts that may affect a person's health conditions and disease patterns [3].

Preliminary studies conducted in patient room MEKah 3 RS Muhammadiyah Ahmad Dahlan of Kediri obtaining data the number of patients with diabetes mellitus with Gangrene during the month of January to December 2015 amounted to 540 patients with diabetes mellitus and the in average amounted 45 patients per month. The results of interviews with 10 patients with diabetic gangrene obtained 6 patients said lazy conducting wound care, blood sugar checks and routine control because they consider the injury to his leg is difficult to cure. It is characterized by the existence of wound necrosis, and 4 patients say always conduct regular wound care, blood sugar checks, and routine control because they feel there is a change in the condition of the wound. They believe the wound can be healed.

Patients with diabetes mellitus experience disturbances in the form of nervous system damage. Damage to the peripheral nervous system in general can cause tingling, pain in hands and feet, as well as decrease the sensitivity or numbness. The Decrease of sensitivity will be dangerous because of decreased response to the injury, so that in general patients with diabetes mellitus are too late to realize that there was a wound on his leg, it is aggravated due to the conditions of hyperglycemia caused injury and would be difficult to heal ulcers / ulcer. The

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ulcers can develop into tissue death, which, if not handled properly and intensively, can lead to gangrene . Diabetic gangrene need a long and intensive treatment. These conditions led to the emergence of negative psychological reactions [4].

Patients with a negative perception of the ability or people with low self-efficacy often occurs in people with diabetes so that they can slow down the healing process in patients with diabetes mellitus and, in diabetes mellitus patients with high self-efficacy will allow it to accelerate the healing process.

Objective of this research was to determine the correlation of self-efficacy diabetes mellitus patient, with gangrene in the process of patient's adaptation based on the theory of Calista Roy in RSM Ahmad Dahlan Kediri.

MATERIALS AND METHODS

This research used quantitative research design with approach of cross-sectional, the population was all diabetes mellitus patients with gangrene in Mekah 3 room RSM Ahmad Dahlan Kediri amounted to 45 respondents. Intake of sample in this research, used technique of purposive sampling. The samples amounted to 30 patients with diabetes mellitus with gangrenous started in stage 2 who fully conscious / composmentis.

The research instrument used a questionnaire tools to determine the correlation of self efficacy of patients with diabetes mellitus with gangrene. The next process was analysis of data that tested with software SPSS, statistical test of chi-square = 0.05 to determine whether there is a correlation of self-efficacy of the diabetes mellitus patients and gangrene in the process of patient's adaptation based on the theory of Calista Roy in RSM Ahmad Dahlan Kediri.

RESULTS

1. General data

General data will present the characteristics of the respondent. Based on the characteristics of the respondents indicated that the age of majority respondents was 56-66 years , amounted to 18 respondents (60%) of the total of 30 respondents. seeing from the long period of suffering from diabetes mellitus, indicates that the majority of respondents suffer from diabetes mellitus was more than 3 years, amounted to 21 (70%) of the total 30 respondents. Characteristics of respondents based on status in the family is known that nearly half of the respondent's status as the father amounted to 11 (36.66%) of the total 30 respondents.Characteristics of respondents based on employment status in the family obtained that almost half of the respondents worked as private employees amounted to 10 (33.33%) of the total 30 respondents. Characteristics of respondents based on the history of concomitant disease known that most of the respondents have hypertension amounted to 19 (63.33%) of the total 30 respondents. Characteristics of respondents based on education known that most of the respondents had high school 16 (53.33%) of the total 30 respondents.Characteristics of respondents based on historical GDA controls is recognized that most of the respondents have a history of irregular GDA control amounted to 18 (60%) of the total 30 respondents. Characteristics of respondents based on history taking medication known that most of the respondents had a history of taking medication that are not routine amounted to 18 (60%) of the total 30 respondents. Characteristics of respondents based on the Ganggren wound grade known that almost half of the respondents are in grade 3 of gangren wounds grade amounted to 16 (36.66%) of the total 30 respondents.

2. Specific Data

Specif Data will present the characteristics of self efficacy with gangrene in the process of adaptation to the patient based on the theory of Calista Roy in RSM Ahmad Dahlan Kediri.

Table.1 Table of self-efficacy with the adaptation process of patients, in Mekah 3 in patient room RSM Ahmad Dahlan Kediri.

Self Efficacy	Adaptation Process		Total
	Maladaptif	Adaptif	
Low	18 60.0%	0 .0%	18 60.0%
Medium	0 .0%	7 23.3%	7 23.3%
High	0 .0%	5 16.7%	5 16.7%
Total	18 60.0%	12 40.0%	30 100.0%

Based on table 1.1 self efficacy with the adaptation process of patients, in Mekah 3 in patient room RSM Ahmad Dahlan Kediri, known that most of the respondents with low self-efficacy have maladaptive adaptation process amounted to 18 (60%) of the total 30 respondents.

Table.2 Analysis data on *Self Efficacy* of diabetes mellitus patient with gangrenin patient adaptation process based on Teory of Calista Roy in RS Muhammadiyah Ahmad Dahlan Kota Kediri

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	30.000 ^a	2	.000
N of Valid Cases	30		

The results of data analysis showed that the p value = 0,000 < α = 0.05, so Ho rejected H1 accepted thus there is correlation of self efficacy of diabetes mellitus patients with gangrene in the process of adaptation to the patient based on the theory of Calista Roy in RSM Ahmad Dahlan Kediri. Patients with high self-efficacy will have adaptive adaptation response and those with low self-efficacy, then the process of adaptation will maladaptive.

DISCUSSION

1. *Self-efficacy of diabetes mellitus patients with gangrene in RSM Ahmad Dahlan Kediri.*

Results of research on Self Efficacy Diabetes Mellitus Patients with gangrene, in the inpatient room Mekah 3 RSM Ahmad Dahlan Kediri, it is known that most of the respondents have low Self Efficacy amounted to 18 (60%) of the total 30 respondents. The results of this research stated that people with diabetes mellitus have a low self-efficacy due to patients always have a negative perception about their capabilities, this can slow the healing process. And people with high self-efficacy has a positive perception about their capabilities so accelerate the healing process that proven by the results of self-efficacy questionnaire that was significant, characterized by the respondents were able to control the diet, taking anti-diabetic medicine regularly. The results showed that the majority of respondents have a low self efficacy, it is marked with the number of respondents who answered rarely follow the existing activities in the environment around the residence, there are who answered not sure the wound can heal faster, there is another who said they were not sure they could play a role in the family. When have a wound gangrene, individual must have a negative perception about their health, resulting in the patients unsure about their abilities. This may worsen a person condition because unable to care themselves independently.

2. *Adaptation process of patient with Diabetes mellitus gangren based on Teory of Calista Roy in RSM Ahmad Dahlan Kota Kediri*

Results of research on the adaptation process of patients with diabetes mellitus gangrene in Table 4.3 adaptation process diabetes mellitus patients in the inpatient room Mekah 3 RSM Ahmad Dahlan Kediri known that most of the respondents with the adaptation process maladaptive that amounted to 18 (60%) of the total 30 respondents. The human represents a system that is adaptive (can adjust to the current situation), when sick or potentially sick, when experiencing stress or weakness / lack of coping mechanisms, usually people try to overcome ineffective things [5]. Humans attempt to minimize conditions that are not effective and maintain the adaptive ones, through increased of human adaptation free of energy consumption and the energy can be used for other stimulus. Tomey and Alligood also suggests there are four factors that can be viewed to assess the person's process of adaptation namely physiological, self-concept, role function and interdependence. When people with diabetes mellitus gangrene has great value of 4 effector mentioned by Roy adaptation process will happen quickly and well too.

The research results showed that the fraction of respondents with maladaptive adaptation process. It is characterized by many respondents indicating that they could not perform daily activities, embarrassed by the condition of the wound that smells, more often at home than go out, rarely do activities outside the home. The adaptation process is influenced by the Physiological Functions, Self-concept, role function, and interdependence. Good self-concept and run the role function properly could maintain the someone's adaptation. Individuals with high self-efficacy will attempt to recover. In individuals with high self-efficacy will appear the positive coping mechanism, against the condition so that individuals can conduct adaptation.

3. *Correlation of self-efficacy of the diabetes mellitus patient with gangrene in adaptation process of patient based on the theory of Calista Roy in RSM Ahmad Dahlan Kota Kediri.*

The results of data analysis showed that the value of $p = 0.000 < \alpha = 0.05$, so H_0 is rejected, H_1 is accepted, thus there is correlation of self efficacy diabetes mellitus patients with gangrene in the process of adaptation to the patient based on the theory of Calista Roy in RSM Ahmad Dahlan Kediri.

Based on cross-tabulation between self-efficacy with the process of adaptation in patients in the inpatient room Mekah 3 RSM Ahmad Dahlan Kediri, it is known that most of the respondents with low self-efficacy have maladaptive adaptation process amounted to 18 (60%) of the total 30 respondents.

Patients with low self-efficacy in patients with diabetes mellitus may slow the healing that impact on nerve damage due to constantly thinking about the cure. Patients with diabetes mellitus experienced disturbances in the form of nervous system damage. The damage of peripheral nervous system in general can cause tingling, pain in hands and feet, as well as decrease the sensitivity or numbness. Decreased of sensitivity is dangerous because the decreased response toward the injury, so that in general patients with diabetes mellitus too late to realize that there was a wound on their leg. This is further compounded because the conditions of hyperglycemia resulting in injuries that are difficult to heal and will become ulcers. The ulcers can develop into tissue death, which, if not handled properly, that extensively, can lead to gangrene. Diabetic gangrene needs long and intensive treatment. These conditions lead to the emergence of negative psychological reactions [4]. The adaptive process of someone is strongly influenced by a person's belief in their selves to do something useful for their selves, in this case if someone in their belief they can perform maintenance on itself, then by itself will cause a positive individual coping in their selves that could increase adaptation. Thus the treatment process and the healing process will go smoothly and will accelerate the healing of wounds gangrene.

CONCLUSION

1. Almost a half of respondents have a low Self Efficacy that is amounted to 18 (60%) of the total 30 respondents.
2. More than a half of respondent with maladaptive adaptation process that is amounted to (60 %) of the total 30 respondents.
3. There is a significant correlation between self-efficacy of diabetes mellitus patient with gangrene in the process of patient's adaptation based on theory of Calista Roy in RSM Ahmad Dahlan Kediri.

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