

FAMILY SUPPORT AND DISCHARGE PLANNING INFLUENCE DIABETIC ULCER PATIENTS' QUALITY OF LIFE

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ABSTRACT

Introduction: Diabetic ulcers can affect the quality of life of sufferers. Support from family and health workers in the form of discharge planning is needed to help improve the quality of life of diabetic ulcer patients. **Objective:** This study aims to determine the relationship between family support and discharge planning on the quality of life of diabetic ulcer patients. **Method:** This study used a correlational method with a cross-sectional approach. The research sample was 50 respondents based on inclusion and exclusion criteria using accidental sampling. The instruments used were the WHOQOL-Bref questionnaire, family support questionnaire, and discharge planning questionnaire. The analysis used was bivariate analysis with Kendall's tau-b correlation test. **Results:** Of the 50 respondents, there were 37 respondents (74%) with moderate quality of life, 28 respondents (56%) with high family support, and 40 respondents (80%) with good discharge planning. The results of statistical tests show that there is a significant relationship between family support and the quality of life of ulcer patients with a p value of $0.000 < \alpha (0.05)$, and there is a significant relationship between discharge planning and the quality of life of ulcer patients with a p value of $0.006 < \alpha (0.05)$. **Conclusion:** There is a relationship between family support and the quality of life of diabetic ulcer patients and there is a relationship between discharge planning and the quality of life of diabetic ulcer patients. Family support is more significant in influencing the quality of life of diabetic ulcer patients.

Keywords: Diabetic ulcers, Discharge Planning, Family Support, Quality of Life

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INTRODUCTION

According to the International Diabetes Federation (IDF) (2019) ulcers diabetes mellitus complications of diabetes mellitus (DM) which causes neuropathy and peripheral vascular disease. Based on the two definitions above it can be it was concluded that diabetic ulcers are a possible complication of DM causes neuropathy and peripheral vascular disease in a series secondary symptoms associated with diabetes such as cracked skin, ulceration, infection, or damage to the skin's protective layer involving the epidermis and part of the dermis. Diabetic ulcers can be caused by diabetic neuropathy (DPN), peripheral vascular disease (PAD), and abnormalities in the shape of the legs (Wang et al., 2022). DM patients who experience PAD can trigger ulcers diabetes. PAD causes reduced blood flow and tissue loss occurring in the upper and lower extremities. For DM sufferers, the arteries the most frequently affected is the distal artery (dorsalis

pedis) located in lower extremities (Akintomide et al., 2021).

Based on epidemiological data, 15% of DM sufferers experience ulcers diabetes (Alzamani, 2022). Around 9.1 million to 26.1 million sufferers people around the world will experience diabetic ulcers every year, with a higher proportion of diabetics with a history of ulcers than the proportion of active diabetes sufferers, namely 3.1 to 11.8% or 12.9 million up to 49.0 million (International Diabetes Federation, 2017). International Diabetes Federation (IDF) (2021) says Indonesia has 19,465,100 people with diabetes in 2021, with the prevalence of diabetic ulcers by 15% or 2,919. 765 people. RISKADES (2018) data supports this the idea that the prevalence of diabetic ulcers in Indonesia can increase was associated with an 11% increase in prevalence. Based on data in Pekanbaru City, the number of diabetic ulcer sufferers reached 14,286 in 2022 (Dinas Kesehatan Kota Pekanbaru, 2022). According to data from

Home Arifin Achmad's illness in 2023 will see 50 patients treated with cases of diabetic ulcers (Rekan Medis RSUD Arifin Achmad, 2023).

Diabetic ulcers can affect a person's physical condition. Impact on the body including changes in the shape of the feet, pain, infection, and even amputation (Setiawan, 2020). DM sufferers with diabetic ulcer complications have a poor quality of life for everyone quality of life domains compared to DM sufferers without ulcer complications diabetes (Safitri & Fahrur, 2018). According to World Health Organization (2022) quality of life is a person's perception of position them in their culture of life and their value systems as well relationship to their goals, expectations, standards, and desires. Quality a person's life can be measured based on income, physical health, psychology, and their social relationships.

Research conducted by Putri (2020) in Bali said that the quality of life of patients with diabetic ulcers is mostly poor poor low life, namely 66.2%. Same research too conducted by Akbar et al. (2021) conducted in Aceh City, sufferers diabetic ulcers have a poor quality of life. Diabetic ulcer sufferers need to get proper treatment continuity between hospital and home care. Therefore diabetic ulcer patients need support in the form of discharge planning (Mobiliu et al., 2020). Discharge planning or also called discharge planning is a method for providing nursing care on an ongoing basis, providing information about advanced health needs patients after they go home, perform evaluations, and provide guidance for self-care (Rofi'i, 2019). Research conducted by Negara (2019) in Banjarmasin City shows discharge planning can affect the quality of life of diabetic ulcer patients. Results the research shows that the relationship is very strong or close to perfect between discharge planning and quality of life in diabetic ulcer patients with.

Diabetic ulcer sufferers need support, one of them family support. Family support can help them in this undergo treatment and overcome the patient's physical and psychological problems diabetic ulcers (Maryana et al., 2023). Family support is a role family in providing support to people who are sick with act, behave and understand it. Family support consists of: four

dimensions, namely emotional, appreciation, instrumental, and information (Joeliantina, 2019).

Based on research conducted by Wertiningtyas (2020) in the city Semarang said there was a correlation between family support and quality life of diabetic ulcer patients. The quality of life of diabetic ulcer patients will the better if the family's emotional support and informational support is good.

The preliminary study that the researchers carried out used a questionnaire of 10 diabetic ulcer patients, 5 people had poor quality of life medium category, 3 people have quality of life in the low category, and 2 people have a quality of life in the high category. A total of 3 out of 5 people diabetic ulcer patients who have a moderate level of quality of life have high family support and adequate discharge planning, meanwhile 2 out of 5 diabetic ulcer patients have poor quality of life are having low family support and poor discharge planning good. 3 people have quality of life in the low category and have support low family and adequate discharge planning, and 2 people have quality of life in the high category has high family support and good discharge planning. This study aims to see the relationship between family support and discharge planning on the quality of life of diabetic ulcer patients.

METHOD

This research uses a correlational type of quantitative method, which tests differences in the characteristics of two or more variables. The dependent variable in this study is quality of life, and the independent variables in this study are discharge planning and family support. The approach used in this research is cross-sectional, where researchers study the relationship between risk factors and effects using approaches, observations, or simultaneous data collection. The cross-sectional approach is carried out only once during the examination (Notoadmodjo, 2018).

Researchers used accidental sampling techniques to determine the population to be used. Accidental sampling is a technique for determining samples based on chance, namely whoever the researcher meets according to the criteria determined by the researcher (Sugiyono, 2018).

The samples in this study were diabetic ulcer patients treated at Arifin Achmad Regional Hospital. The questionnaire was the instrument used in this research.

This research used 4 questionnaires, namely the respondent characteristics questionnaire. The quality of life questionnaire consists of 26 questions. The quality of life questionnaire measured with 26 questions with a Likert answer range. The quality of life questionnaire has been tested for validity and reliability in Lestari's (2021) research in Semarang City. The quality of life questionnaire is said to be valid if the calculated r value $> r$ table. The validity test results obtained a value of $0.72 > 0.05$, so the questionnaire was said to be valid and the test results obtained a reliability value of 0.961 with a correlation coefficient of 0.476-0.906, so the questionnaire was said to be reliable. The discharge planning questionnaire consists of 14 question items with a score of 1 if the answer is "yes" and a score of 0 if the answer is "no". The validity test obtained a calculated r value in the range 0.473 – 0.783, where r calculated $> r$ table (0.444), so the discharge planning questionnaire was said to be valid and reliable. Family support questionnaire There are 13 questions in the family support questionnaire to assess family support for diabetic ulcer sufferers. Each question item has 4 answers always, often, sometimes, and never. In the validity test, the calculated r value was found in the range 0.498 – 0.714, where r calculated $> r$ table (0.444), so the family support questionnaire was said to be valid and reliable. In this study, the Kendall's tau-b statistical test was used to assess the relationship between categorical variables and categorical variables.

RESULTS

Table 1 Overview of Respondent Characteristics (n-50)

Characteristics of responden	n	%
Gender		
Male	22	44
Female	28	56

Age		
Pre Elderly (45 - 59 years)	36	72
Elderly (60 - 69 years)	14	28
Education		
SD	2	4
SMP	9	18
SMA	24	48
College	15	30
Occupation		
Doesn't work	18	36
Taylor	3	6
Stall keeper	4	8
Farmers/Fishermen	10	20
Civil servants	1	2
Traders in the market	14	28
Who Accompanies the Respondent During Treatment		
Husband and wife	20	40
Child	21	42
Parent	4	2
Siblings	5	10
TOTAL	50	100

Based on Table 1, Presenting the majority of respondents' gender, namely women, 28 respondents (56%). The age of the majority of respondents was in the range of 45-59 years, namely 36 respondents (72%). The educational characteristics of the majority of respondents were at the high school level with 24 respondents (48%). The majority of respondents did not work as many as 18 respondents (36%). The majority of respondents were accompanied by their children during the treatment period, 21 respondents (42%).

Table 2 Frequency distribution and percentage of Quality of Life (n-50)

Quality of Life	n	%
Tall	11	22
Currently	38	76
Low	1	2
Total	50	100

Based on Table 2, shows data on the frequency distribution of respondents based on the level of quality of life of diabetic ulcer patients, the majority of respondents have a moderate quality of life, namely 37 respondents (74%)

Table 3 Frequency Distribution of Family Support (n- 50)

Family Support	n	%
Tall	28	56
Low	22	44
Total	50	100

Based on Table 3, that the frequency distribution of respondents' characteristics based on the level of family support shows that the majority of respondents received high family support, namely 28 respondents (56%).

Table 4 Frequency Distribution of Discharge Planning (n- 50)

Discharge Planning	n	%
Enough	10	20
Good	40	80
Total	50	100

Based on Table 4, that the frequency distribution of respondents' characteristics based on the level of discharge planning shows that the majority of respondents received good discharge planning, namely 40 respondents (80%).

Table 5 Analysis of Family Support and Quality of Life in Diabetic Ulcer Patients (n- 50)

Family Support	Kualitas Hidup				P
	Tall	Currently	Low	Total	
Low	1	20	1	22	0,000
	4,5	90,9	4,5	100	
Tall	10	18	0	28	
	35,7	64,3	0	100	
Total	11	38	1	50	
	22,0	64,3	2,0	100	

Based on Table 5, Correlation analysis between family support variables and quality of life in diabetic ulcer patients as many as 50 respondents. The results of the analysis show that of the 50 respondents with low family support, there were 20 people (90.9%) with a medium quality of life, 1

person (4.5%) with a high quality of life and 1 person (4.5%) with a low quality of life. low life. The results for high family support were 18 people (64.3%) with a moderate quality of life, 10 people (35.7) with a high quality of life, and 0 people (0%) with a low quality of life. Based on the Kendall's tau-b correlation test, a significance value (p value) of 0.000 or p value < α (0.05) was obtained, it can be concluded that H0 is rejected. This shows that there is a significant relationship between family support and quality of life in diabetic ulcer patients.

Table 6 Analysis of Discharge Planning and Quality of Life in Diabetic Ulcer Patients (n- 50)

Discharge Planning	Kualitas Hidup				P
	Tall	Currently	Low	Total	
Low	1	20	1	22	0,000
	4,5	90,9	4,5	100	
Tall	10	18	0	28	
	35,7	64,3	0	100	
Total	11	38	1	50	
	22,0	64,3	2,0	100	

Based on Table 6, Correlation analysis between discharge planning variables and quality of life in diabetic ulcer patients as many as 50 respondents. The results of the analysis showed that of the 50 respondents with adequate discharge planning, there were 10 people (100%) with a moderate quality of life, 0 people (0%) with a high quality of life and 0 people (0%) with a low quality of life. The results for good discharge planning were 28 people (70.0%) with a moderate quality of life, 11 people (27.5%) with a high quality of life, and 1 person (2.5%) with a low quality of life. Based on the Kendall's tau-b correlation test, a significance value (p value) of 0.006 or p value < α (0.05) was obtained, it can be concluded that H0 is rejected. This shows that there is a significant relationship between discharge planning and quality of life in diabetic ulcer patients.

DISCUSSION

The results of research conducted by researchers on 50 respondents showed that the quality of life of the majority of diabetic ulcer respondents was in the moderate category, 37

respondents (74%). A moderate level of quality of life is a condition where a person or group lives a moderate level of life and achieves a sufficient level of satisfaction and well-being in several aspects of their life but cannot achieve the best level of well-being in the four factors that influence quality of life according to WHOQOL (Rohmah et al., 2022). Research conducted at RSUP Dr. Sarjito in Yogyakarta found that the degree of diabetic ulcers affected 23.3% of sufferers' quality of life. The results of this study were different from the results of Adawiyah's research (2022) which found that the majority of respondents had a poor quality of life, 33 respondents (53.2%).

The results of research conducted by researchers on 50 respondents showed that the family support of most diabetic ulcer respondents was in the high category, 28 respondents (56%). A person feels more confident and motivated to overcome their health problems with good family support (Parinduri et al., 2019). This research shows that the highest form of family support is instrumental support with a mean of 12.88. Patients with ulcers often have limited mobility. Instrumental support is essential to ensure they receive timely wound care and access to medical facilities (Bohingamu et al., 2019). The lowest support is emotional support with a mean of 8.58. Patients often experience stress and anxiety due to chronic conditions and complications of the disease. Emotional support can reduce anxiety and increase adherence to treatment. Emotional support helps patients feel accepted, appreciated, and not alone in facing their illness (Schmidt et al., 2020). The same results were also obtained in the research of Sari et al. (2023) who said 9 people (90%) with diabetic ulcers received good family support.

The results of research conducted by researchers on 50 respondents showed that most respondents' discharge planning for diabetic ulcers was in the good category, namely 40 respondents (80%). Providing discharge planning is useful to ensure that clients can carry out safe and realistic follow-up care after leaving the hospital (Nursalam, 2015). To plan good discharge planning, the patient must be evaluated, the plan must be adjusted to the patient's needs, services must be available, such as family education and referrals, and follow-up, such

as evaluation or examination (Said & Ali, 2020). Research conducted by Sumarni (2020) in Jakarta regarding discharge planning, the results showed that 38 people (92.7%) received good discharge planning.

The Relationship of Family Support to the Quality of Life of Diabetic Ulcer Patients

The results of further analysis relate to the relationship between family support and the quality of life of diabetic ulcer patients using the Kendall's tau-b statistical test. In research conducted by researchers, statistical test values were obtained with $p\text{ value } (0.000) < \alpha (0.05)$ which shows that H_0 is rejected, so it can be concluded that there is a relationship between family support and the quality of life of diabetic ulcer patients. Diabetic ulcer sufferers need support, one of which is family support (Maryana et al., 2023). In this study, the family support that had the highest influence on the quality of life of diabetic ulcer patients was instrumental support with a mean value of 12.88, and the lowest support was emotional support with a mean value of 8.70.

Instrumental support is very helpful in the physical domain, such as help carrying out daily activities that are difficult to do because of their physical condition. Helping diabetic ulcer patients in their daily activities can reduce the level of stress and anxiety felt by diabetic ulcer patients (Hughes, 2018). Physical assistance from family members helps patients to make social connections. Good social relationships can increase feelings of acceptance and love, thereby strengthening the quality of life in the social aspect. Instrumental support also influences environmental aspects, especially in terms of accessing health services to support patient healing (Hughes, 2018). Family support can help provide the best care for diabetes mellitus patients (Young et al., 2020).

Good family support means that families can care for diabetic ulcer patients and meet their needs physically and mentally (Iswanti et al., 2018) (Rahayu et al., 2021). This is in line with research by Adawiyah (2022) which found that there was a relationship between family support and the quality of life of type 2 DM patients with diabetic ulcers at the Katimura Clinic, Pontianak. In line with research

by Wertiningtyas (2020) which states that the quality of life of diabetic ulcer patients increases with better emotional and informational support.

The Relationship of Discharge Planning to the Quality of Life of Diabetic Ulcer Patients

The results of further analysis relate to the relationship between family support and the quality of life of diabetic ulcer patients using the Kendall's tau-b statistical test. In research conducted by researchers, statistical test values were obtained with $p \text{ value } (0.006) < \alpha (0.05)$ which shows that H_0 is rejected, so it can be concluded that there is a relationship between discharge planning and the quality of life of diabetic ulcer patients. Patients who have diabetic ulcers can be better prepared to return to society with structured discharge planning (Mobiliu et al., 2020).

Discharge planning plays a role in the management of diabetic ulcer patients. Discharge planning is important and mandatory for every client, starting during the hospital treatment period until the patient goes home (Nursalam, 2015). Discharge planning provides necessary education for patients and their families, which increases their understanding of self-management and adherence to treatment (Azhari et al., 2020). Having good discharge planning can improve the quality of life of diabetic ulcer patients through readiness, continuity of care, and appropriate instructions (Azhari et al., 2020).

Research conducted by Sumarni (2020) stated that health education through discharge planning can improve the quality of life of patients with an OR value of 38, meaning that every patient who receives discharge planning has a 38 times chance of having a good quality of life. These results are in line with research by Negara et al. (2019) who stated that there is a strong correlation between discharge planning and the quality of life of diabetic ulcer patients. The same results were also obtained in Taharuddin's (2017) research with the result that an increase in the quality of life of diabetic ulcer patients occurred by implementing the conservation discharge planning model.

The results of this study are expected to make respondents more proactive in understanding and being involved in the discharge planning

process. Respondents and their families are advised to actively participate in discussions with health workers regarding home care needs. The limitation of this study is the number of samples in the study. The number of respondents in this study was limited to 50 patients, so the results cannot be generalized to the entire population of diabetic ulcer patients.

CONCLUSION

There is a significant relationship between family support and quality of life in diabetic ulcer patients. The same results also showed a significant relationship between discharge planning and quality of life in diabetic ulcer patients. The family support is more significant in influencing the quality of life of diabetic ulcer patients.

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