

Comparison of Quality of Life of Diabetes Mellitus Ulcer Patients with Non Ulcer Patients at Kota Agung Hospital

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ABSTRAK

Background & Objectives: Diabetes mellitus (DM) is currently one of the global health threats, worldwide nearly half a billion people live with diabetes. Poor quality of life of patients with DM results in decreased self-care, worsening the situation over time. Quality of life issues become an important aspect in diabetes mellitus with ulcers or non-ulcers. Tujuan in this study to determine "Comparison of Quality of Life of Patients with DM Ulcers with Non Ulcers at Kota Agung Hospital". **Methods:** This research method uses descriptive with a cross sectional approach, this research was conducted at Kota Agung Hospital during December 15 - January 07. The sampling technique used total sampling, which was 20 respondents, of the 20 respondents there were 10 respondents with diabetic ulcers and 10 non-diabetic ulcer respondents as well as the World Health Organization Quality of Life (WHOQoL) questionnaire developed by WHO to assess quality of life, data analysis using the mann withney test. **Results:** Based on the results of the Mann-Whitney test, the p-value = 0.000 indicates that H_0 is accepted and H_a is rejected, which means that there is a comparison between the quality of life of non-ulcer DM patients and the quality of life of DM patients with ulcers. **Conclusion:** It is hoped that the management of the Great City Hospital can create an assessment unit for the quality of life of non-ulcer DM patients and diabetic ulcers, in order to improve the quality of life of patients.

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Introduction

Diabetes mellitus (DM) is currently one of the major global health threats, with nearly half a billion people living with the condition worldwide. Genetic factors and individual lifestyle choices are among the primary causes of DM (Soelistijo, 2021).

People with DM experience elevated blood glucose levels (hyperglycemia), which is caused by abnormalities in insulin secretion, insulin action, or both (Sudirman and Modjo, 2021). DM is a leading cause of morbidity and mortality globally due to its high symptom burden and long-term complications. Patients with type 2 diabetes, particularly those with poor glycemic control, are at high risk of complications, including coronary heart disease, retinopathy, nephropathy, and peripheral neuropathy (Sani et al., 2023).

DM cases are more prevalent in developing countries than in developed ones (Torawoba et al., 2021). According to the International Diabetes Federation (2017), there were 425 million people with diabetes mellitus worldwide. In the Southeast Asia region alone, there were 82 million cases in 2017, a figure projected to rise to 151 million by 2045 (Astutisari et al., 2022).

This upward trend continues each year, with Southeast Asia ranking third in the world. In Indonesia, diabetes mellitus is a common condition, making the country rank sixth among the ten countries with the highest number of diabetes cases in Asia (Federation, 2018).

If not treated promptly, DM can lead to various other conditions such as microvascular complications (nephropathy, retinopathy, and neuropathy) and macrovascular complications (stroke, coronary artery disease, and diabetic foot ulcers), which can be life-threatening. Individuals with DM face lifelong physical, psychological, social, and environmental challenges due to the chronic and ongoing nature of DM care. Patients are required to make significant lifestyle adjustments, such as diet changes, regular exercise, daily medications, and constant blood glucose monitoring, all of which impact their quality of life (Fonna et al., 2023).

Poor quality of life in DM patients results in reduced self-care and worsens their condition over time. Quality of life is a crucial aspect of DM management, as it predicts how well patients manage their illness and maintain long-term health. It also reflects the burden experienced by DM patients due to the chronic nature of their condition and is used to measure the effectiveness of treatments (Nisa and Kurniawati, 2022).

A study by Fatsiwi Nunik et al. (2020), titled *Quality of Life of Diabetes Mellitus (DM) Patients with Diabetic Ulcers*, revealed that physical symptoms experienced by patients with diabetic ulcers interfere with their physical activities, preventing them from carrying out daily tasks as usual.

Another study by Hudatul Umam et al. (2020), titled *Overview of Quality of Life of Diabetes Mellitus Patients at Wanaraja Public Health Center*, found that the majority (63.7%) of DM patients had a moderate quality of life. In detail, 61.5% had moderate quality of life in the physical domain, 60.4% in the psychological domain, 58.2% in the social relationship domain, and 53.8% in the environmental domain. These findings suggest that most respondents had a moderate quality of life across all domains.

Hence, the role of healthcare workers in promoting health and improving the quality of life of DM patients is vital.

Based on the background above and the significant number of DM cases, particularly among patients with and without diabetic ulcers registered at RSUD Kota Agung, the researcher is interested in conducting a study entitled:

“The Relationship between the Quality of Life of DM Patients with and without Diabetic Ulcers at RSUD Kota Agung”

Objectove

The purpose of this study is to compare the quality of life between diabetic patients with and without diabetic ulcers at RSUD Kota Agung.

Method

This research used a descriptive method with a cross-sectional approach. The study was conducted at RSUD Kota Agung from December 15 to January 7.

The sampling technique used was total sampling, involving 20 respondents – 10 patients with diabetic ulcers and 10 without. The WHOQoL (World Health Organization Quality of Life) questionnaire developed by WHO was used to assess quality of life. Data analysis was conducted using the Mann-Whitney test.

Results

TABLE 1. Quality of Life of Diabetic Patients with and without Ulcers

Quality of Life	Group	N	Mean Rank	Sum Of Rank
	DM without ulcer	10	15,50	155,00
	DM with ulcer	10	5,50	55,00
	Total	20		

TABLE 2. Mann Whitney test

	Quality of Life
Mann-Whitney U	0,000
Wilcoxon W	55,000
Z	-3,877
Asymp. Sig. (2-tailed)	0,000
Exact Sig. [2*(1-tailed Sig.)]	0,000 ^b

Discussion

Table 1 presents the results of the descriptive analysis comparing the quality of life between diabetic patients with and without ulcers. The “N” column represents the sample size, with 10 diabetic patients without ulcers and 10 with diabetic ulcers. The “mean” column shows the average quality of life score for non-ulcer DM patients as 15.50 with a standard deviation of 155.00, while the average quality of life score for DM patients with ulcers is 5.50 with a standard deviation of 55.00. Based on Table 1, the mean quality of life score for patients without ulcers is higher than that of patients with ulcers.

The results of the Mann-Whitney test show a p-value of 0.000, indicating that the alternative hypothesis (Ha) is accepted and the null hypothesis (Ho) is rejected. This

means there is a statistically significant difference in quality of life between diabetic patients with and without ulcers.

According to the World Health Organization (WHO, 2020), quality of life is an individual's perception of their position in life, within the context of the culture and value systems in which they live, and in relation to their goals, expectations, standards, and concerns. Furthermore, Akbar and Mursal (2021) also state that quality of life is a person's perception or view of themselves and their relationship or interaction with the external environment, in connection with their hopes, ideals, and overall life aspirations.

Conclusion

The overall quality of life of diabetic patients with diabetic foot ulcers is generally categorized as good. Physically, patients have limitations in daily activities and require assistance but can still perform light tasks. Functionally, they face restrictions in body functions and family roles. Psychologically, patients accept their condition but tend to be more emotional and easily saddened. Socially, they experience limited participation in social activities and are less active in community involvement.

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