

ABSTRAK

Dewi Maharani. 5193540001. Hubungan Aktivitas Fisik dan Asupan Serat dengan Kadar Gula Darah Pada Pasien Diabetes Melitus Tipe 2 Rawat Jalan Di Poli Endokrin RSUD Haji Medan. Skripsi. Program Studi Gizi. Pendidikan Kesejahteraan Keluarga. Fakultas Teknik. Universitas Negeri Medan. 2024.

Penelitian ini bertujuan untuk mengetahui: (1) Karakteristik responden; (2) Aktivitas fisik responden; (3) Asupan serat responden; (4) Kadar gula darah responden; (5) Hubungan aktivitas fisik dengan kadar gula darah pasien Diabetes Melitus Tipe 2; (6) Hubungan asupan serat dengan kadar gula darah responden; (7) Hubungan aktivitas fisik dan asupan serat dengan kadar gula darah responden. Tempat penelitian di RSUD Haji Medan, Kabupaten Deli Serdang. Waktu penelitian ini pada bulan Januari - Maret 2024. Populasi penelitian ini adalah pasien Diabetes Melitus Tipe 2. Teknik pengambilan sampel secara *Purposive Sampling* dengan jumlah sampel 35 responden. Teknik pengumpulan data menggunakan kuesioner IPAQ-SF, formulir SQ-FFQ, dan data Rekam medik. Teknik analisis data menggunakan deskripsi data, uji hipotesis menggunakan Uji korelasi *rank spearman* dan uji *regresi linear berganda*.

Hasil penelitian menunjukkan aktivitas fisik pada pasien termasuk dalam kategori aktivitas fisik rendah (<600 MET/menit/minggu) sebesar 74,30 persen. Asupan serat pada pasien termasuk kategori asupan serat kurang (<20 gr) sebesar 77,10 persen. Kadar gula darah pada pasien termasuk kategori kadar gula darah tidak terkontrol (<200 mg/dl) sebesar 71,40 persen. Hasil uji korelasi *Rank Spearman* terdapat hubungan yang negatif dan signifikan antara aktivitas fisik dengan kadar gula darah dengan nilai $p = -0.507$ dengan $p\text{-value} = 0.002$. Artinya semakin rendah aktivitas fisik responden maka semakin meningkat kadar gula darah. Hasil uji korelasi *Rank Spearman* terdapat hubungan yang negatif dan signifikan antara asupan serat dengan kadar gula darah dengan nilai $p = -0.478$ dengan $p\text{-value} = 0.004$. Artinya semakin rendah asupan serat responden maka semakin meningkat kadar gula darah. Hasil analisis Regresi Linear berganda terdapat hubungan yang positif dan signifikan antara aktivitas fisik dan asupan serat dengan kadar gula darah diperoleh nilai persamaan regresi berganda yaitu ($Y = 361.020 - 0.315 X_1 - 0.439 X_2$). Hasil penelitian ini menunjukkan nilai konstanta yaitu 361.020 artinya apabila aktivitas fisik dan diabetes melitus tipe 2 sama dengan nol maka kejadian diabetes melitus mengalami peningkatan. Nilai koefisien regresi variabel aktivitas fisik (X_1) yaitu sebesar -0.315 artinya aktivitas fisik berhubungan negatif dengan kadar gula darah. Nilai koefisien regresi variabel asupan serat (X_2) yaitu sebesar -0.439 artinya asupan serat berhubungan negatif dengan kadar gula darah. Dengan demikian asupan serat merupakan variabel dominan berhubungan dengan kadar gula darah karena koefisien regresinya (-0.439), lebih besar daripada aktivitas fisik yang artinya semakin rendah aktivitas fisik dan semakin rendah asupan serat maka semakin tinggi kadar gula darah pada pasien.

ABSTRACT

Dewi Maharani. NIM: 5193540001. *The relationship between physical activity and fiber intake and blood sugar levels in outpatients with type 2 diabetes mellitus at the endocrine clinic at RSU Haji Medan. Undergraduate Thesis. Nutrition Study Program. Family Welfare Education. Faculty of Engineering. Medan State University. 2024.*

This research aims to determine: (1) Characteristics of respondents; (2) Respondent's physical activity; (3) Respondent's fiber intake; (4) Respondent's blood sugar level; (5) The relationship between physical activity and blood sugar levels in Type 2 Diabetes Mellitus patients; (6) Relationship between fiber intake and respondents' blood sugar levels; (7) The relationship between physical activity and fiber intake and the respondent's blood sugar levels. The research location is RSU Haji Medan, Deli Serdang Regency. The time of this research was January - March 2024. The population of this research was Type 2 Diabetes Mellitus patients. The sampling technique was purposive sampling with a sample size of 35 respondents. Data collection techniques used the IPAQ-SF questionnaire, SQ-FFQ form, and medical record data. Data analysis techniques use data descriptions, hypothesis testing using the Spearman rank correlation test and multiple linear regression tests.

The research results showed that physical activity in patients was included in the low physical activity category (<600 MET/minute/week) at 74.30 percent. Fiber intake in patients was included in the category of low fiber intake (<20 gr) at 77.10 percent. Blood sugar levels in patients were in the category of uncontrolled blood sugar levels (<200 mg/dl) at 71.40 percent. The results of the Spearman Rank correlation test showed a negative and significant relationship between physical activity and blood sugar levels with p value = - 0.507 with p -value = 0.002. This means that the lower the respondent's physical activity, the higher the blood sugar level. The results of the multiple linear regression analysis showed a positive and significant relationship between physical activity and fiber intake and blood sugar levels, resulting in a multiple regression equation value, namely ($Y = 361.020 - 0.315 - 0.439$). The results of this study show a constant value of 361.020, meaning that if physical activity and type 2 diabetes mellitus are equal to zero, the incidence of diabetes mellitus will increase. The regression coefficient value for the physical activity variable (X_1) is -0.315, meaning that physical activity is negatively related to blood sugar levels. The regression coefficient value for the fiber intake variable (X_2) is -0.439, meaning that fiber intake is negatively related to blood sugar levels. Thus, fiber intake is the dominant variable related to blood sugar levels because the regression coefficient (-0.439) is greater than physical activity, which means that the lower the physical activity and the lower the fiber intake, the higher the patient's blood sugar levels.