

## ABSTRAK

Diabetes melitus tipe 2 merupakan penyakit kronis akibat resistensi dan kurangnya insulin yang menyebabkan kadar gula darah tinggi. Pengendalian kadar gula darah yang baik mampu mencegah komplikasi diabetes, baik mikrovaskular maupun makrovaskular. Diperlukan penatalaksanaan yang efektif untuk monitoring kadar gula darah dengan melakukan perubahan gaya hidup sehat melalui diet sehat dan latihan fisik. Penelitian ini bertujuan untuk mengetahui perbandingan antara pemberian edukasi diet sehat dan latihan fisik terhadap monitoring kadar gula darah pada penderita diabetes melitus tipe 2 di Puskesmas Darussalam Medan. Jenis penelitian adalah penelitian kuantitatif dengan rancangan *quasy experimental with two group pretest-posttest design*. Populasi sebanyak 294 penderita diabetes melitus tipe 2; berdasarkan teknik *purposive sampling*, sampel sebanyak 44 orang. Pengumpulan data dilakukan melalui lembar observasi terkait kadar gula darah pada penderita diabetes melitus tipe 2. Data dianalisis menggunakan uji statistik *t-paired dan t-independent*. Hasil penelitian menunjukkan bahwa terdapat perbedaan kadar gula darah antara pemberian edukasi diet sehat dengan latihan fisik dengan nilai p value sebesar 0,000 ( $p < 0,05$ ). Pada pemberian edukasi diet sehat terdapat penurunan kadar gula darah sebesar 23,864 mg/dL, sedangkan pada pemberian latihan fisik diperoleh rerata kadar gula darah sebesar 52,727 mg/dL dan terdapat perbedaan selisih antara kadar gula darah pada pemberian edukasi diet sehat dengan pemberian latihan fisik sebesar 68,318 mg/dL dengan nilai p value sebesar 0,000. Kesimpulan bahwa terdapat perbedaan antara intervensi edukasi diet sehat dengan latihan fisik dalam monitoring kadar gula darah. Disarankan puskesmas mengadakan program latihan fisik secara rutin serta meningkatkan kembali dukungan dalam mengatur pola makan dengan membentuk komunitas pencegahan penyakit tidak menular melalui program gaya hidup sehat. Kader posbindu menjadi penggerak dalam melaksanakan program.

**Kata kunci:** Kadar gula darah, diet sehat, latihan fisik

## ABSTRACT

*Type 2 diabetes mellitus is a chronic disease caused by insulin resistance and insufficient insulin production, leading to high blood sugar levels. Effective blood sugar control can prevent both microvascular and macrovascular complications of diabetes. Effective management is required to monitor blood sugar levels by adopting a healthy lifestyle through a healthy diet and physical exercise. This study aims to determine the comparison between the provision of healthy diet education and physical exercise on blood sugar level monitoring in patients with type 2 diabetes mellitus at the Darussalam Community Health Center in Medan. This is a quantitative study with a quasi-experimental design using a two-group pretest-posttest design. The population consisted of 294 patients with type 2 diabetes mellitus; based on purposive sampling, a sample of 44 individuals was selected. Data collection was conducted using an observation sheet regarding blood glucose levels in patients with type 2 diabetes mellitus. Data were analyzed using paired t-tests and independent t-tests. The results of the study indicate that there is a difference in blood glucose levels between the provision of healthy diet education and physical exercise, with a p-value of 0.000 ( $p < 0.05$ ). In the group receiving healthy diet education, there was a decrease in blood glucose levels of 23.864 mg/dL, whereas in the group receiving physical exercise, the average blood glucose level was 52.727 mg/dL. There was a difference in the blood glucose level between the healthy diet education intervention and the physical exercise intervention of 68.318 mg/dL, with a p-value of 0.000. In conclusion, there is a difference between the healthy diet education and physical exercise interventions in blood glucose level monitoring. It is recommended that community health centers conduct regular physical exercise programs and reinvigorate support for dietary management by forming communities for the prevention of non-communicable diseases through healthy lifestyle programs. Posbindu cadres should serve as the driving force in implementing these programs.*

**Keywords:** *Blood glucose levels, healthy diet, physical exercise*