

**INTISARI**  
**PENGARUH SENAM KAKI DIABETES MELITUS TERHADAP**  
**PENURUNAN KADAR GULA DARAH PADA PENDERITA DIABETES**  
**MELITUS TIPE 2**

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**Latar Belakang :** Meningkatnya prevalensi penyakit Diabetes Melitus tipe 2 pada negara maju maupun negara berkembang sehingga menjadi masalah kesehatan atau penyakit global pada masyarakat. Oleh karena itu Diabetes Melitus tipe 2 dapat di cegah dengan dengan aktivitas fisik salah satunya yaitu Senam Kaki Diabetes Melitus tipe 2.

**Tujuan :** Untuk mengetahui pengaruh senam kaki terhadap penurunan kadar gula pada penderita diabetes melitus tipe 2.

**Metode:** Desain penelitian yang digunakan adalah *quasi experimental design*, serta rancangan penelitian yang akan digunakan penulis adalah *one group pre test-post test design*. Sampel penelitian adalah penderita Diabetes Melitus tipe 2 sebanyak 40 penderita. Teknik pengambilan sampel dilakukan secara *Total Sampling*. Analisis data dilakukan dengan uji normalitas data menggunakan *Shapiro-Wilk* yang dilanjutkan analisis dengan menggunakan uji statistik *parametric* dengan *paired sample t-test*.

**Hasil :** Berdasarkan hasil analisis menggunakan uji nonparametrik *Wilcoxon Signed Rank Test*. Diperoleh nilai signifikansi sebesar  $0,000 < 0,05$ . Hal ini berarti  $H_0$  ditolak dan  $H_a$  diterima sehingga dapat diartikan ada pengaruh senam kaki diabetes melitus terhadap penurunan kadar gula pada penderita DM tipe 2 di Wilayah Kerja Colomadu 1 Karanganyar. dengan nilai *mean* sebelum dilakukan senam 159,25 setelah dilakukan senam menjadi 130,13, nilai Minimum sebelum dilakukan senam 115mg/dL setelah di beri senam menjadi 90 mg/dL dan nilai Maksimum sebelum di lakukan senam 190mg/dL setelah dilakukan senam menjadi 171mg/dl ,rata-rata penurunan 29,12 mg/dl dan presentase penurunan 18,29 %.

**Simpulan :** Ada perbedaan signifikan pada kadar gula darah pada penderita diabetes melitus tipe 2 di wilayah kerja puskesmas colomadu 1 karanganyar post test pemberian senam kaki diabetes melitus.

**Kata Kunci : Diabetes Melitus Tipe 2, Senam Kaki, Kadar Gula Darah**

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## ABSTRACT

### THE EFFECT OF DIABETES MELITUS FOOT EXERCISES IN DECREASING OF BLOOD SUGAR LEVELS ON PATIENTS WITH DIABETES MELITUS TYPE 2

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**Background:** The increasing prevalence of type 2 diabetes mellitus type 2 in both developed and under developing countries is a health problem or a global disease in the community. Therefore, diabetes mellitus type 2 can be prevented by physical activity, such as foot exercises of diabetes mellitus type 2.

**Objective:** To determine the effect of foot exercises in reducing blood sugar levels on patients with diabetes mellitus type 2.

**Method:** The research design used a quasi experimental design. The research implemented one group pre-test-post test design. The research sample is 40 patients with diabetes mellitus type 2. The sampling technique used total sampling. Data analysis was performed by a normality test using shapiro-wilk and analysis of a parametric statistical test with paired sample t-tests.

**Results:** Based on the results of the analysis using the wilcoxon signed rank test of nonparametric test, it was obtained a significance value of  $0.000 < 0.05$ . It means that  $H_0$  is rejected and  $H_a$  is accepted. Therefore, it can be interpreted that there is an effect of diabetes mellitus foot exercises in reducing blood sugar levels in patients with diabetes mellitus type 2 in Colomadu 1 Karanganyar Area. It is indicated by the mean value before foot exercises was 159.25 and after foot exercises was 130.13. Meanwhile, the minimum value before foot exercises was 115mg / dL after foot exercises was 90 mg / dL. Therefore, the maximum value before foot exercises was 190mg / dL after foot exercises was 171mg / dl while the average decrease was 29.12 mg / dl and the percentage decreased was 18.29%.

**Conclusion:** There is a significant difference in blood sugar levels of patient with diabetes mellitus type 2 in the health center of Colomadu 1 Karanganyar after giving diabetes mellitus foot exercises.

**Keywords:** Diabetes Mellitus Type 2 s, Foot Exercise, Blood Sugar Levels

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PUSAT PELAYANAN DAN  
PENGEMBANGAN BAHASA