

**HUBUNGAN AKTIVITAS FISIK DAN INDEKS MASA TUBUH TERHADAP
KADAR HbA1c PASIEN DIABETES MELITUS TIPE 2 DI
KECAMATAN SUMBANG KABUPATEN
BANYUMAS**

ABSTRAK

Latar Belakang: Puskesmas di Indonesia berperan penting dalam mempromosikan kesehatan masyarakat, termasuk pengendalian gula darah pada pasien diabetes melitus melalui pola hidup sehat seperti aktivitas fisik rutin, diet seimbang, dan pengelolaan berat badan. Penting untuk mengkaji pengaruh aktivitas fisik dan indeks massa tubuh terhadap kontrol glikemik yang diukur melalui HbA1c.

Tujuan: Mengetahui hubungan aktivitas fisik dan indeks massa tubuh terhadap kadar HbA1c pada pasien diabetes melitus tipe 2 di Kecamatan Sumbang Banyumas.

Metode: Penelitian ini menggunakan desain observasional analitik dengan pendekatan potong lintang. Sampel terdiri dari 75 penderita DM tipe II di Kecamatan Sumbang periode Januari 2024 yang dipilih menggunakan *consecutive sampling*. Data dikumpulkan melalui kuesioner IPAQ, pemeriksaan fisik, serta pemeriksaan laboratorium, kemudian dianalisis menggunakan uji Chi-square 2x2 dan uji Fisher untuk perbedaan antarvariabel. Analisis data pada taraf 0,05.

Hasil: Sebanyak 74,7% pasien DMT2 memiliki kadar HbA1c $\geq 7\%$, responden dengan IMT *overweight* hingga *obese*, 25,0% memiliki HbA1c $< 7\%$, sementara 75,0% memiliki HbA1c $\geq 7\%$ ($p=1,000$). Kelompok dengan aktivitas fisik rendah, 15,1% responden memiliki HbA1c $< 7\%$, sementara 84,9% memiliki HbA1c $\geq 7\%$ ($p=0,004$).

Kesimpulan: Aktivitas fisik berhubungan dengan kadar HbA1c pada pasien diabetes melitus tipe 2 di Kecamatan Sumbang Banyumas.

Kata kunci: aktivitas fisik, diabetes melitus tipe 2, indeks massa tubuh, HbA1c

**THE RELATIONSHIP BETWEEN PHYSICAL ACTIVITY AND BODY
MASS INDEX ON HbA1c LEVELS IN TYPE 2 DIABETES
MELLITUS PATIENTS IN SUMBANG SUBDISTRICT,
BANYUMAS REGENCY.**

ABSTRACT

Background: Community health centers (Puskesmas) in Indonesia play an important role in promoting public health, including blood sugar control for diabetes mellitus patients through healthy lifestyles such as regular physical activity, balanced diets, and weight management. It is crucial to study the impact of physical activity and body mass index on glycemic control, as measured by HbA1c levels.

Objective: To determine the relationship between physical activity and body mass index (BMI) on HbA1c levels in type 2 diabetes mellitus patients in Sumbang Subdistrict, Banyumas.

Methods: This study used an analytical observational design with a cross-sectional approach. The sample consisted of 75 type 2 diabetes mellitus patients in Sumbang Subdistrict during January 2024, selected using consecutive sampling. Data were collected through the IPAQ questionnaire, physical examinations, and laboratory tests, and then analyzed using the 2x2 Chi-square test and Fisher's exact test to assess differences between variables. Data analysis was conducted at a significance level of 0.05.

Results: A total of 74.7% of type 2 diabetes mellitus (T2DM) patients had HbA1c levels $\geq 7\%$. Among respondents with overweight to obese BMI, 25.0% had HbA1c levels $< 7\%$, while 75.0% had HbA1c levels $\geq 7\%$ ($p=1.000$). In the group with low physical activity, 15.1% of respondents had HbA1c levels $< 7\%$, while 84.9% had HbA1c levels $\geq 7\%$ ($p=0.004$).

Conclusion: Physical activity is associated with HbA1c levels in type 2 diabetes mellitus patients in Sumbang Subdistrict, Banyumas.

Keywords: body mass index, HbA1c, physical activity, type 2 diabetes mellitus