

**Universitas Ngudi Waluyo  
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**“Pengaruh Latihan Aerobic Intensitas Sedang Terhadap Kadar Glukosa Darah pada Pasien Diabetes Mellitus di Puskesmas Leyangan Kabupaten Semarang”**

### **ABSTRAK**

**Latar Belakang :** Latihan aerobik adalah latihan yang melibatkan jantung, paru-paru, lengan, dan kaki. Jenisnya bisa dengan lari sebagai Gerakan pemanasan, inti, dan pendinginan kemudian senam pada latihan peregangan. Latihan aerobik intensitas sedang memiliki interval 50%-70% MHR. MHR adalah denyut nadi maksimal (220 - usia).

**Tujuan :** Menganalisis pengaruh Latihan aerobik intensitas sedang terhadap kadar glukosa darah pada diabetes mellitus di Puskesmas Leyangan Kabupaten Semarang.

**Metode :** Desain penelitian ini Quasi Experimental Design dengan desain eksperimen Non Equivalent Control Group Design. Populasi yang diteliti semua pasien DM di Puskesmas Leyangan. Jumlah sampel sebanyak 49 responden yang dibagi dalam kelompok intervensi dan control. Pengambilan sampel dengan Purposive Sampling dan alat pengumpul data dengan glucometer.

**Hasil :** Hasil penelitian menunjukkan selisih rata-rata kadar glukosa darah kelompok intervensi turun sebesar 5,58 mg/dl dan kelompok control naik sebesar 6,84 mg/dl.

**Kesimpulan :** Hasil penelitian menunjukkan terdapat pengaruh Latihan aerobik intensitas sedang terhadap kadar glukosa darah pasien diabetes mellitus di Puskesmas Leyangan Kabupaten Semarang.

**Saran :** Latihan aerobik intensitas sedang dapat dijadikan sebagai pengobatan non farmakologi sebagai upaya pengelolaan diabetes mellitus untuk menjaga kadar glukosa darah tetap dalam rentang normal. Penelitian lebih lanjut dapat mengontrol factor yang mempengaruhi glukosa darah, yaitu: diet, stress, dan aktivitas.

**Kata kunci :** Aerobic, glukosa darah, diabetes mellitus.

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**“The Effect of Moderate Intensity Aerobic Exercise on Blood Glucose Levels in Diabetes Mellitus Patients at Leyangan Health Center, Semarang Regency”**

**ABSTRACT**

**Background :** Aerobic exercise is an exercise that involves the heart, lungs, arms, and legs. The type can be run as a warm-up, core, and cool-down movement then exercise in stretching exercises. Moderate-intensity aerobic exercise has an interval of 50%-70% MHR. MHR is the maximum pulse rate (220 - age).

**Objective :** To analyze the effect of moderate-intensity aerobic exercise on blood glucose levels in diabetes mellitus at the Leyangan Public Health Center, Semarang Regency.

**Methods :** The design of this research is Quasi Experimental Design with an experimental design of Non Equivalent Control Group Design. The population studied were all DM patients at the Leyangan Health Center. The number of samples was 49 respondents who were divided into the intervention and control groups. Sampling using purposive sampling and data collection tools with a glucometer.

**Results :** The results showed that the average difference in blood glucose levels in the intervention group decreased by 5.58 mg/dl and the control group increased by 6.84 mg/dl.

**Conclusion :** The results showed that there was an effect of moderate-intensity aerobic exercise on blood glucose levels in patients with diabetes mellitus at the Leyangan Health Center, Semarang Regency.

**Suggestion :** Moderate intensity aerobic exercise can be used as a non-pharmacological treatment as an effort to manage diabetes mellitus to keep blood glucose levels within normal ranges. Further research can control factors that affect blood glucose, namely: diet, stress, and activity.

**Keywords :** Aerobic, blood glucose, diabetes mellitus.