

## **ABSTRACT**

### **ANALYSIS OF DIFFERENCES IN BLOOD GLUCOSE LEVELS AND URIC ACID BETWEEN NEW PARTICIPANTS AND REGULAR PARTICIPANTS OF AEROBIC GYMNASTICS AT LAMPUNG WALK**

**By**

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**Background:** According to the *World Health Organization (WHO)* non-communicable diseases (NCDs), also known as chronic diseases, tend to be of long duration and are the result of a combination of genetic, physiological, environmental, and behavioral factors. Regular exercise or physical activity can reduce insulin resistance and allow the body's cells to use insulin better. On the other hand, lactic acid levels in the body will increase if a person exercises too much. This study aims to analyze the differences in blood glucose levels during and uric acid after physical activity in aerobic gymnastics participants in Lampung Walk.

**Method:** The research method used is observational analytic using a cross sectional design. Sampling was carried out using *the purposive sampling* method. The variable tested against Blood Glucose Levels and Uric Acid was aerobic gymnastics. Data analysis included univariate and bivariate analysis with the *Shapiro-Wilk* test and continued with *the Independent T-Testparametric* test t.

**Results:** The results of the study of 46 respondents showed that the average results of blood sugar levels during and uric acid in first-time study subjects of aerobic gymnastics were 111.91 mg/dl and 5.7 mg/dl while in subjects who had been three times a week aerobic gymnastics was 91 mg/dl and 4.3 mg/dl.

**Conclusion:** There was a significant difference in blood glucose levels and uric acid between the new participants and the regular participants of aerobic gymnastics at Lampung Walk.

**Keywords:** Blood Sugar Levels While, Uric Acid Levels, Physical Activity, Aerobic Gymnastics.

## **ABSTRAK**

### **ANALISIS PERBEDAAN KADAR GLUKOSA DARAH SEWAKTU DAN ASAM URAT ANTARA PESERTA BARU DAN PESERTA RUTIN SENAM AEROBIK DI LAMPUNG WALK**

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**Latar Belakang:** Menurut *World Health Organization (WHO)* penyakit tidak menular (PTM), juga dikenal sebagai penyakit kronis, cenderung berdurasi panjang dan merupakan hasil dari kombinasi faktor genetik, fisiologis, lingkungan, dan perilaku. Olahraga teratur atau aktivitas fisik dapat mengurangi resistensi insulin dan memungkinkan sel-sel tubuh menggunakan insulin dengan lebih baik. Dilain sisi, kadar asam laktat dalam tubuh akan meningkat jika seseorang berolahraga terlalu berlebihan. Penelitian ini bertujuan untuk menganalisis adanya perbedaan kadar glukosa darah sewaktu dan asam urat antara peserta baru dan peserta rutin senam aerobik di Lampung Walk.

**Metode:** Metode penelitian yang digunakan ini bersifat analitik observasional dengan menggunakan desain potong lintang (*Cross Sectional*). Pengambilan sampel dilakukan dengan menggunakan metode *purposive sampling*. Variabel yang diuji terhadap Kadar Glukosa Darah Sewaktu dan Asam Urat adalah senam aerobik. Analisis data meliputi analisis univariat dan bivariat dengan uji *Shapiro-Wilk* dan dilanjutkan dengan uji parametrik *Independent T-Test*.

**Hasil:** Hasil penelitian terhadap 46 responden menunjukkan bahwa rata-rata hasil kadar gula darah sewaktu dan asam urat pada subjek penelitian yang baru pertama kali senam aerobik adalah 111,91 mg/dl dan 5,7 mg/dl sedangkan pada subjek yang telah tiga kali seminggu senam aerobik adalah 91 mg/dl dan 4,3 mg/dl.

**Simpulan:** Terdapat perbedaan bermakna kadar glukosa darah sewaktu dan asam urat antara peserta baru dan peserta rutin senam aerobik di Lampung Walk.

**Kata Kunci:** Kadar Gula Darah Sewaktu, Kadar Asam Urat, Aktivitas Fisik, Senam Aerobik.