

**PENGARUH LATIHAN BEBAN DAN MANAGEMENT DIET TERHADAP
KADAR GULA DARAH SEWAKTU PADA PENDERITA DM TIPE 2 DI
PUSKESMAS KETAPANG TANGERANG**

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ABSTRACT

Background : *Diabetes is a metabolic disease characterized by blood sugar levels that are higher than normal. To address the increase in the population suffering from diabetes mellitus, it is necessary to control type II diabetes mellitus by providing education, diet management, physical activity and medication.*

Objective: *This study aims to determine the effect of weight training and diet management on blood sugar levels in patients with type II DM at the Ketapang Health Center.*

Methods: *The type of research used was a quasi-experimental study with a one group pre-test-post-test design. The population in this study were 427 diabetes mellitus patients with purposive sampling technique, namely 46 subjects aged 45-59 years. Data analysis in this study used paired t-test for knowledge and Wilcoxon test for blood sugar levels.*

Results: *Based on the results of the study there were significant differences in the decrease in blood sugar levels while being given weight training and dietary management of diabetes mellitus. There is also a significant difference in the level of knowledge of patients before and after being given diabetes mellitus dietary management with a score difference of 2.7 knowledge scores. Overall for blood sugar levels and knowledge during the 14 days of treatment with P-Value = 0.000 (P-Value <0.05) which means there is a change. There is an increase in the average intake of macronutrients for 14 days of management diet. Overall, for the intake of macronutrients during the 14 days of treatment, there was a change with P-Value = 0.001 (P-Value < 0.05).*

Conclusion: *There is a decrease in blood sugar levels in patients with diabetes mellitus who are given weight training and diet management. There was an increase in knowledge after being given diet education on diabetes mellitus and there was an increase in the average intake of energy, protein, and a decrease in fat and carbohydrate intake.*

Keywords: *Intake of macronutrients (energy, protein, fat, carbohydrates), blood sugar levels, knowledge.*