PERBEDAAN PENGARUH *BRISK WALKING EXERCISE* DAN YOGA TERHADAP KADAR GULA DARAH LANSIA DIABETES MELLITUS DI KELURAHAN SUNGAI LANGKAI KOTA BATAM

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INTISARI

Diabetes Mellitus pada lanjut usia merupakan masalah kesehatan kronis yang membutuhkan pengendalian kadar gula darah secara optimal untuk mencegah komplikasi. Aktivitas fisik menjadi salah satu intervensi nonfarmakologis yang potensial, namun efektivitas berbagai metode latihan perlu dibandingkan untuk menentukan pendekatan yang lebih tepat. Penelitian ini bertujuan untuk mengetahui perbedaan pengaruh *Brisk Walking Exercise* dan Yoga terhadap penurunan kadar gula darah pada lansia penderita Diabetes Mellitus di Kelurahan Sungai Langkai wilayah kerja Puskesmas Sei Langkai Kota Batam. Penelitian ini menggunakan desain *True Experimental* dengan pendekatan *Randomized Controlled Trial* dan rancangan *pretest-posttest control group design*. Sampel penelitian berjumlah 54 lansia penderita Diabetes Mellitus yang dipilih menggunakan teknik *Probability Sampling* dengan metode *Simple Random Sampling*, kemudian dialokasikan secara acak ke dalam kelompok *Brisk Walking Exercise* sebanyak 27 responden dan kelompok Yoga sebanyak 27 responden. Pengukuran kadar gula darah dilakukan sebelum dan sesudah intervensi menggunakan glukometer Nesco Multicheck, kemudian dianalisis menggunakan *Paired Sample T-Test* dan *Independent Sample T-Test*. Hasil penelitian menunjukkan *Brisk Walking Exercise* dan Yoga berpengaruh terhadap penurunan kadar gula darah pada lansia dengan Diabetes Mellitus, dengan nilai *p value* = 0,000 ($p < 0,05$), dan tidak terdapat perbedaan kadar gula darah yang signifikan antar kelompok sebelum maupun sesudah perlakuan, dengan nilai *p value* 0,372 dan 0,982 ($p > 0,05$). Temuan ini menunjukkan bahwa kedua intervensi berpotensi membantu pengendalian kadar gula darah pada lansia dengan Diabetes Mellitus. Penerapan aktivitas fisik terstruktur dapat menjadi strategi pendukung dalam manajemen DM. Hasil penelitian ini diharapkan dapat menjadi masukan bagi Puskesmas Sei Langkai Kota Batam dalam menerapkan *Brisk Walking Exercise* dan Yoga sebagai intervensi nonfarmakologis untuk membantu mengendalikan kadar gula darah pada lansia dengan Diabetes Mellitus.

Kata Kunci: *Brisk Walking Exercise*, Diabetes Mellitus, Gula Darah, Lansia, Yoga

COMPARATIVE EFFECTS OF BRISK WALKING EXERCISE AND YOGA ON BLOOD SUGAR LEVELS IN ELDERLY PATIENTS WITH DIABETES MELLITUS IN SUNGAI LANGKAI URBAN VILLAGE BATAM CITY

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ABSTRACT

Diabetes Mellitus among older adults is a chronic health problem requiring optimal blood glucose control to prevent complications. Physical activity is a potential non-pharmacological intervention; however, the effectiveness of different exercise methods needs further comparison to determine appropriate approaches. This study aimed to determine the differences in the effects of Brisk Walking Exercise and Yoga on reducing blood glucose levels among elderly individuals with Diabetes Mellitus in Sungai Langkai Village, the working area of Sei Langkai Public Health Center, Batam City. This study employed a True Experimental design using a Randomized Controlled Trial approach with a pretest-posttest control group design. A total of 54 elderly participants with Diabetes Mellitus were selected using Probability Sampling with Simple Random Sampling technique, then randomly allocated into the Brisk Walking Exercise group (27 participants) and Yoga group (27 participants). Blood glucose levels were measured before and after intervention using observation sheets and analyzed using the Paired Sample T-Test and Independent Sample T-Test. The results showed that Brisk Walking Exercise and Yoga influenced the reduction of blood glucose levels among older adults with diabetes mellitus, with a p value of 0.000 ($p < 0.05$). No significant differences in blood glucose levels were found between the groups before or after the intervention, with p values of 0.372 and 0.982, respectively ($p > 0.05$). These findings suggest that both interventions have the potential to support blood glucose control in older adults with diabetes mellitus. Structured physical activity may serve as a complementary strategy in diabetes management. This study is expected to provide input for Sei Langkai Public Health Center in Batam City regarding the implementation of Brisk Walking Exercise and yoga as non-pharmacological interventions to help control blood glucose levels among older adults with Diabetes Mellitus.

Keywords: *Blood Glucose, Brisk Walking Exercise, Diabetes Mellitus, Elderly Yoga*