

## ABSTRAK

### **Hubungan Kepatuhan Senam Diabetes Melitus Terhadap Kejadian Neuropati Diabetikum Pada Pasien Diabetes Melitus Tipe II Di Yogyakarta**

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**Latar Belakang:** Terjadinya peningkatan prevalensi diabetes melitus tipe 2 di Indonesia disertai dengan komplikasi akut dan kronis seperti terjadinya masalah cairan dan elektrolit, gangguan mikrovaskular, makrovaskular dan neuropati diabetikum. Manajemen dan pencegahan komplikasi diabetes melitus memerlukan penanganan secara multidisiplin salah satunya adalah senam diabetes melitus yang dapat mencegah terjadinya neuropati diabetikum. Meskipun senam diabetes memberikan banyak manfaat dan rekomendasi yang kuat untuk individu dengan riwayat diabetes melitus untuk mengadopsi gaya hidup yang lebih sehat, namun kepatuhan pasien diabetes melitus terhadap olahraga tergolong cukup rendah

**Tujuan:** Untuk mengetahui hubungan kepatuhan senam diabetes melitus terhadap kejadian neuropati diabetikum pada pasien diabetes melitus tipe II di Yogyakarta

**Metode:** Penelitian ini merupakan *cross sectional study*. Penelitian dilakukan di Puskesmas Kotagede 1 Yogyakarta dan dilakukan bulan April 2019. Sampel berjumlah 61 dan variabel diukur menggunakan kuesioner kepatuhan senam dan *Diabetic Neuropathy Symptom*. Uji hipotesis menggunakan *Chi square*.

**Hasil:** Responden penelitian sebagian besar berusia lansia akhir 44,3%, sebagian besar responden gula darah puasa >125 mg/dl adalah 34,4%, sebagian besar lama menderita DM 1-5 tahun adalah 41,0% dan sebagian besar lama melakukan senam DM sebagian besar responden lama melakukan senam DM 1-5 tahun 50,8%, sebagian besar responden tidak melakukan senam diabetes minimal 3-5 kali perminggu 62,3 % dan responden dengan neuropati mengalami gejala merasa terbakar, kesemutan, nyeri di tungkai atau kaki. Berdasarkan hasil uji statistik didapatkan hasil bahwa *p-value* 0,001 (<0,05), maka dapat disimpulkan bahwa terdapat hubungan antara kepatuhan senam diabetes melitus dengan kejadian neuropati diabetikum pada pasien DM tipe 2 di Yogyakarta

**Kesimpulan:** Kepatuhan senam diabetes melitus memiliki hubungan dengan kejadian neuropati diabetikum pada pasien DM tipe 2. Semakin tinggi kepatuhan senam diabetes melitus, maka kejadian neuropati diabetikum semakin rendah

**Kata Kunci:** Diabetes, kepatuhan senam diabetes melitus, neuropati diabetikum

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## ABSTRACT

### **The Relationship between Diabetes Melitus Gymnastic Compliance Against Diabetic Neuropathy on Diabetes Mellitus Type II Patients in Yogyakarta**

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**Background:** The increase in prevalence of diabetes mellitus type 2 in Indonesia is accompanied by acute and chronic complications such as the occurrence of fluid and electrolyte problems, microvascular, macrovascular and diabetic neuropathy. Diabetes mellitus management and prevention of complications require multidisciplinary treatment, one of which is diabetes mellitus exercises that can prevent the occurrence of diabetic neuropathy. Although diabetes exercise provides many benefits and strong recommendations for individuals with a history of diabetes mellitus to adopt a healthier lifestyle, the compliance of patients with diabetes mellitus to exercise is quite low.

**Objective:** This research was conducted to determine the relationship between compliance with diabetes mellitus exercise to the incidence of diabetic neuropathy in patients with diabetes mellitus type II in Yogyakarta

**Method:** This study was a cross sectional study. The study was conducted in Kotagede 1 Public Health Center Yogyakarta, in April 2019. The samples consisted of 61 diabetes mellitus type 2 patients and the variables were measured using a gymnastic compliance questionnaire and Diabetic Neuropathy Symptom. Hypothesis testing was done by using *Chi square*.

**Results:** The result of the study indicated that majority of the respondents in the study were elderly aged that reached 44.3%, the majority of the respondents' fasting blood > 125 mg / dl was 34.4%, most of the duration of diabetes mellitus 1-5 years was 41.0% and most of the time they did DM gymnastics exercise 1-5 years was 50.8%, most of the respondents who did not do diabetes exercise at least 3-5 times a week were 62.3% and the respondents with neuropathy experienced symptoms such as burning, numbness or tingling, and pain in the legs or feet. Based on the results of statistical tests it was found that p-value 0.001 (<0.05), it can be concluded that there is a relationship between adherence to diabetes mellitus exercise and the incidence of diabetic neuropathy in DM type 2 patients in Yogyakarta

**Conclusion:** Compliance with diabetes mellitus exercise has a relationship with the incidence of diabetic neuropathy in DM type 2 patients. The higher compliance with diabetes mellitus exercise, the lower the incidence of diabetic neuropathy

**Keywords:** Diabetes, compliance with diabetes mellitus exercises, diabetic neuropathy

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