

## ABSTRAK

Wirdawati (2025). Penerapan Aktivitas Senam Kaki untuk Meningkatkan Nilai *Ankle Brachial Index* (ABI) pada Pasien Diabetes Melitus Tipe II di Wilayah Kerja Rejosari. Karya Tulis Ilmiah Studi Kasus, Program Studi DIII Keperawatan Pekanbaru, Jurusan Keperawatan, Politeknik Kesehatan Kemenkes Riau. Pembimbing (I) Ns. Nia Khusniyati, M.Kep., Sp.Kep., M.B, (II) Ira Oktaviani Rz, Apt., M.Farm.

**Latar Belakang:** Diabetes Melitus (DM) merupakan kondisi gangguan metabolisme yang ditandai dengan peningkatan kadar gula dalam darah (*hyperglycemia*), kondisi ini jika terus terjadi dalam jangka waktu yang lama akan mengakibatkan komplikasi serius seperti Neuropati atau kerusakan saraf. Tingginya prevalensi Diabetes Melitus serta kurangnya aktivitas fisik penderita Diabetes Melitus, diperlukan aktivitas mudah dan murah seperti aktivitas senam kaki yang dapat diterapkan kapan dan dimana saja tanpa terjadinya komplikasi. **Tujuan:** Menggambarkan penerapan aktivitas senam kaki untuk meningkatkan nilai *Ankle Brachial Index* (ABI) pada pasien Diabetes Melitus tipe II di Wilayah kerja Puskesmas Rejosari. **Metode Penelitian:** Penelitian ini menggunakan desain studi kasus dengan pendekatan deskriptif dan dalam penelitian ini menggunakan 2 orang subjek yang menderita Diabetes Melitus tipe II. Penelitian ini dilakukan pada tanggal 11 Maret sampai 17 Maret 2025, dilakukan pengukuran nilai *Ankle Brachial Index* (ABI) H-1 dan H+1 penerapan aktivitas senam kaki serta 4 kali pertemuan senam kaki selama 30 menit dan dilakukan pengukuran ABI sebelum dan sesudah senam kaki. Instrumen yang digunakan dalam penelitian ini ialah, kursi, koran, *Sphygmomanometer*, *Leaflet* senam kaki, lembar SOP dan Obsevasi ABI. **Hasil Penelitian:** Didapatkan peningkatan nilai ABI pada subjek I dengan nilai rerata ABI kanan *pre* 0,9425 dan *post* 0,96 dan ABI kiri *pre* 0,9626 dan *post* 0,98 serta pada subjek II dengan nilai rerata ABI kanan *pre* 0,875 dan *post* 0,9025 dan ABI kiri *pre* 0,9275 dan *post* 1. **Kesimpulan:** Hasil penelitian menunjukkan adanya peningkatan nilai ABI pada kedua subjek setelah diberikan penerapan aktivitas senam kaki. **Saran:** Diharapkan penerapan aktivitas senam kaki dapat dilakukan secara mandiri oleh penderita Diabetes Melitus tipe II di Wilayah Kerja Puskesmas Rejosari.

**Kata Kunci:** Diabetes Melitus, Nilai ABI, Senam Kaki, Neuropati

## ***ABSTRACT***

**Wirdawati (2025).** Implementation of Foot Exercise Activities to Improve the Ankle Brachial Index (ABI) in Patients with Type II Diabetes Mellitus in the Rejosari Health Center Area. Scientific Paper (Case Study), DIII Nursing Program, Pekanbaru, Department of Nursing, Kemenkes Riau Polytechnic. Supervisors: (I) Ns. Nia Khusniyati, M.Kep., Sp.Kep., M.B., (II) Ira Oktaviani Rz, Apt., M.Farm.

**Background:** Diabetes Mellitus (DM) is a metabolic disorder characterized by elevated blood glucose levels (hyperglycemia). If this condition persists over time, it can lead to serious complications such as neuropathy or nerve damage. The high prevalence of Diabetes Mellitus and the lack of physical activity among patients necessitate simple and affordable activities, such as foot exercises, which can be performed anytime and anywhere without causing complications. **Objective:** To describe the implementation of foot exercise activities to improve the Ankle Brachial Index (ABI) values in patients with Type II Diabetes Mellitus in the Rejosari Health Center area. **Methods:** This study employed a case study design with a descriptive approach involving two subjects diagnosed with Type II Diabetes Mellitus. The research was conducted from March 11 to March 17, 2025. ABI measurements were taken one day before (H-1) and one day after (H+1) the foot exercise intervention, which consisted of four sessions of 30-minute foot exercises. ABI measurements were performed before and after the exercises. Instruments used included a chair, newspaper, sphygmomanometer, foot exercise leaflet, standard operating procedure (SOP) sheets, and ABI observation. **Results:** An increase in ABI values was observed in both subjects. Subject I showed mean ABI values of 0.9425 (right) pre-intervention and 0.96 post-intervention, and 0.9626 (left) pre- and 0.98 post-intervention. Subject II showed mean ABI values of 0.875 (right) pre- and 0.9025 post-intervention, and 0.9275 (left) pre- and 1 post-intervention. **Conclusion:** The results indicate an increase in ABI values in both subjects following the foot exercise intervention. **Suggestions:** It is recommended that foot exercise activities can be performed independently by patients with Type II Diabetes Mellitus in the Rejosari Health Center area.

**Keywords:** Diabetes Mellitus, ABI values, Foot Exercise, Neuropathy