PENGARUH SENAM *CHAIR BASED EXERCISE* TERHADAP NILAI *ANKLE BRACHIAL INDEX* PADA PENYANDANG DIABETES MELITUS TIPE II DI PUSKESMAS MINGGIR SLEMAN

Nawangi Cahyaningtyas[1], Harmilah[2,] Sapta Rahayu Noamperani[3]
[1,2,3]Jurusan Keperawatan Poltekkes Kemenkes Yogyakarta
Jl. Tata Bumi No. 3 Banyuraden, Gamping, Sleman, Yogyakarta, 55293
Email : nawangicahya22@gmail.com

ABSTRAK

Latar Belakang: Kasus diabetes melitus tipe II di Indonesia dari tahun ke tahun terus meningkat hingga 2%. Dalam jangka panjang DM dapat mengakibatkan terjadinya komplikasi, salah satunya *Peripheral Artery Diases* (PAD). Oleh sebab itu, diperlukan upaya untuk deteksi dini dengan pengukuran nilai *ankle brachial index* dan upaya mencegah komplikasi tersebut, salah satunya dengan melakukan senam *chair based exercise* dengan kombinasi *elastic band*.
Tujuan Penelitian: Diketahuinya pengaruh senam *chair based exercise* terhadap nilai *ankle brachial index* pada penyandang diabetes melitus tipe II di Puskesmas Minggir.
Metode Penelitian: Penelitian ini merupakan jenis penelitian *Quasi Experimental* dengan *Pre-Posttest with control group design*. Penelitian dilaksanakan tanggal 1 Maret – 1 April 2023 di Puskesmas Minggir. Sampel penelitian ini berjumlah 54 orang dengan masing-masing kelompok yakni 27 responden dengan teknik pengambilan *purposive sampling*. Kelompok eksperimen diberikan senam *chair based exercise*. Uji beda antara variabel berpasangan dan tidak berpasangan yang digunakan dalam penelitian ini yaitu Uji T berpasangan.
Hasil: Hasil analisis rerata nilai ABI didapatkan hasil ada perbedaan signifikan nilai ABI yaitu untuk ekstemitas kanan (p = 0.013) dan ekstermitas kiri (p = 0.000). Hasil analisa uji beda pada variabel tidak berpasangan antara nilai ABI diketahui bahwa terdapat perbedaan pada kelompok yang diberikan senam *chair based exercise* mengalami peningkatan nilai ABI sebesar p = 0.043 (p <0,05) untuk ekstermitas kanan dan p = 0.048 (p <0,05) untuk ekstermitas kiri kiri dibandingkan dengan kelompok yang tidak diberikan senam, maka dapat disimpulkan bahwa hipotesis diterima.
Kesimpulan: Ada pengaruh senam *chair based exercise* terhadap peningkatan nilai *ankle brachial index* pada penyandang diabetes melitus tipe II di Puskesmas Minggir, Sleman.

Kata Kunci : Diabetes Melitus Tipe II, Senam *Chair Based Exercise,* Nilai *Ankle Brachial Index.*

THE EFFECT OF *CHAIR BASED EXERCISE* ON THE VALUE OF *ANKLE BRACHIAL INDEX* IN PATIENTS WITH TYPE II DIABETES MELLITUS AT MINGGIR HEALTH CENTER

Nawangi Cahyaningtyas[1], Harmilah[2,] Sapta Rahayu Noamperani[3]
[1,2,3] Nursing Department Poltekkes Kemenkes Yogyakarta
Jl. Tata Bumi No. 3 Banyuraden, Gamping, Sleman, Yogyakarta, 55293
Email : nawangicahya22@gmail.com

ABSTRACT

Background: Cases of type II diabetes mellitus in Indonesia continue to increase by 2% year by year. In the long term, DM can lead to complications, one of which is peripheral artery disease (PAD). Therefore, efforts are needed for early detection by measuring the value of the ankle brachial index and to prevent these complications, one of which is chair-based exercise with a combination of elastic bands.

Research Objectives: To know the effect of chair based exercise on the value of the ankle brachial index in people with type II diabetes mellitus at the Minggir Health Center.

Research Methods: This research is a type of Quasi-Experimental research with a Pre-Posttest with control group design. The research was conducted on March 1–April 1, 2023, at the Minggir Health Center. The sample of this study amounted to 54 people, with each group of 27 respondents using the purposive sampling technique. The experimental group was given chair-based exercise. The difference tests between paired and unpaired variables used in this study are using the T-test.

Results: The results of the analysis of the average ABI value showed that there was a significant difference in ABI values, namely for the right extremity ($p = 0.013$) and left extremity ($p = 0.000$). The results of the analysis of the difference test on unpaired variables between ABI values showed that there was a difference in the group given chair-based exercise having a increase in ABI values of $p = 0.043$ ($p < 0.05$) for the right extremity and $p = 0.048$ ($p < 0.05$) for the left extremity compared to the group that was not given exercise, it can be concluded that the hypothesis is accepted.

Conclusion: There is an effect of the application of chair-based exercise on improving the value of the ankle brachial index in people with type II diabetes mellitus at the Minggir Health Center, Sleman.

Keywords: Type II Diabetes Mellitus, Chair Based Exercise, Ankle Brachial Index Value.