

ABSTRAK
PENGARUH ISOMETRIC EXERCISE TERHADAP TEKANAN DARAH
PADA PASIEN HIPERTENSI DI WILAYAH KERJA
PUSKESMAS JAGIR

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Latar Belakang: Hipertensi disebabkan oleh gaya hidup tidak sehat, faktor genetik, serta gangguan fisiologis tubuh, termasuk peran ginjal dan sistem vaskular. Kenaikan tekanan darah berisiko mengakibatkan kerusakan di sistem pembuluh darah sekaligus organ vital tubuh. Latihan isometrik seperti aktivitas menggenggam handgrip atau menahan posisi squat di dinding (wall sit) termasuk dalam pendekatan non-farmakologis yang efektif untuk menurunkan hipertensi. Aktivitas fisik jenis ini dapat meningkatkan fleksibilitas pembuluh darah dan memperkuat otot, sehingga mendukung proses penurunan tekanan darah.

Metode: Penelitian ini menganalisis pengaruh *isometric exercise* terhadap penderita hipertensi di Puskesmas Jagir memakai *one group pre-post test design*. Sampelnya yakni 30 penderita hipertensi di mana dipilih dengan purposive sampling. Tekanan darah diukur memakai Tensimeter Digital dan dianalisis dengan uji *Wilcoxon*.

Hasil: Temuan penelitian tekanan darah penderita hipertensi sebelum *isometric exercise* 20%, hipertensi sistolik terisolasi, 36,7% hipertensi derajat 1, 26,7% hipertensi derajat 2, serta di hipertensi derajat 3 sebanyak 16,7%. Sedangkan tekanan darah setelah dilaksanakan *isometric exercise*, pada persentase kategori prehipertensi menjadi 16,7%, pada hipertensi sistolik terisolasi 26,7%, hipertensi derajat 1 menjadi 33,3%, hipertensi derajat 2 13,3% dan hipertensi derajat 3 sebanyak 10%. Hal ini memperlihatkan adanya pengaruh *isometric exercise* terhadap tekanan darah pasien hipertensi di wilayah kerja puskesmas jagir surabaya.

Kesimpulan: Hasil uji statistik memakai *wilcoxon* memperlihatkan ada pengaruh *isometric exercise* terhadap tekanan darah penderita hipertensi di wilayah kerja Puskesmas Jagir.

Kata Kunci: *isometric exercise*, tekanan darah, hipertensi.

ABSTRACT
THE EFFECT OF ISOMETRIC EXERCISE ON BLOOD PRESSURE IN
HYPERTENSIVE PATIENTS IN THE WORK AREA
OF PUSKESMAS JAGIR

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Background: Hypertension is caused by an unhealthy lifestyle, genetic factors, and physiological disorders of the body, including the role of the kidneys and the vascular system. Increased blood pressure can damage blood vessels and vital organs. One effective non-pharmacological method to reduce blood pressure is isometric exercise, such as gripping a handgrip or holding a squat position (wall sit). This exercise improves blood vessel elasticity and strengthens muscles, thereby helping to lower blood pressure.

Method: This study analyzed the influence of isometric exercise on patients with hypertension at Jagir Public Health Center through a one-group pre-post test approach. Thirty hypertensive patients comprised the study sample, selected via purposive sampling method. A Digital Sphygmomanometer was utilized for blood pressure assessment, and statistical analysis was conducted using the Wilcoxon test.

Results: The research results showed that, prior to isometric exercise, 20% of hypertensive patients were classified as having isolated systolic hypertension, 36.7% had stage 1 hypertension, 26.7% had stage 2 hypertension, and 16.7% had stage 3 hypertension. After undergoing isometric exercise, the percentages changed: 16.7% were categorized as prehypertensive, 26.7% had isolated systolic hypertension, 33.3% had stage 1 hypertension, 13.3% had stage 2 hypertension, and 10% had stage 3 hypertension. This indicates the influence of isometric exercise on the blood pressure of hypertensive patients in the working area of Jagir Public Health Center, Surabaya.

Conclusion: The Wilcoxon test analysis revealed that isometric exercise significantly impacts blood pressure levels among hypertensive patients within the catchment area of Jagir Public Health Center.

Keywords: isometric exercise, blood pressure, hypertension.