

# EFEKTIVITAS LATIHAN ISOMETRIC HANDGRIP TERHADAP PENURUNAN TEKANAN DARAH PADA LANSIA WANITA USIA 60-75 TAHUN DENGAN HIPERTENSI STAGE 1

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## ABSTRAK

**Latar Belakang** : Hipertensi merupakan salah satu masalah kesehatan utama pada lansia yang berkontribusi terhadap peningkatan risiko komplikasi kardiovaskular dan mortalitas. Upaya pengendalian hipertensi dapat dilakukan melalui intervensi non-farmakologis, salah satunya adalah latihan *isometric handgrip*.

**Tujuan** : Penelitian ini bertujuan untuk mengetahui efektivitas latihan *isometric handgrip* terhadap penurunan tekanan darah pada lansia wanita dengan hipertensi *stage 1*.

**Metode Penelitian** : Penelitian menggunakan desain *quasi-eksperimen* dengan rancangan *pre-test post-test control group*. Sampel penelitian sebanyak 30 lansia wanita usia 60–75 tahun di Posyandu Lansia Bina Sehat 1 Lumbir, Kabupaten Banyumas, yang dipilih melalui teknik *purposive sampling* dan dibagi menjadi dua kelompok, yaitu kelompok eksperimen (n=15) yang diberikan latihan *isometric handgrip* selama lima hari berturut-turut, serta kelompok kontrol (n=15) tanpa intervensi. Tekanan darah *sistolik* dan *diastolik* diukur menggunakan sphygmomanometer digital merek *OneMed* sebelum dan sesudah intervensi. Analisis data dilakukan dengan uji *Wilcoxon Signed-Rank* dan *Mann-Whitney*.

**Hasil** : Hasil penelitian menunjukkan adanya penurunan signifikan tekanan darah sistolik (p=0,005) dan diastolik (p=0,008) pada kelompok eksperimen, serta terdapat perbedaan bermakna antara kelompok eksperimen dan kontrol (p<0,001).

**Kesimpulan** : Latihan *isometric handgrip* efektif menurunkan tekanan darah pada lansia wanita dengan hipertensi *stage 1*, sehingga dapat direkomendasikan sebagai strategi non-farmakologis yang sederhana, murah, dan mudah dilakukan dalam upaya pengendalian hipertensi pada lansia.

**Kata Kunci** : hipertensi, lansia, *isometric handgrip exercise*, tekanan darah

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# EFFECTIVENESS OF ISOMETRIC HANDGRIP EXERCISE ON REDUCING BLOOD PRESSURE IN ELDERLY WOMEN AGED 60-75 YEARS WITH STAGE 1 HYPERTENSION

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## ABSTRACT

**Background:** Hypertension is one of the major health problems in the elderly, contributing to an increased risk of cardiovascular complications and mortality. Non-pharmacological interventions, such as isometric handgrip exercise, can be used to control hypertension.

**Objective:** This study aimed to determine the effectiveness of isometric handgrip exercise in reducing blood pressure among elderly women with stage 1 hypertension.

**Methods:** This study employed a quasi-experimental design with a pre-test post-test control group. A total of 30 elderly women aged 60–75 years at Posyandu Lansia Bina Sehat 1 Lumbir, Banyumas Regency, were selected using purposive sampling and divided into two groups: the experimental group (n=15), which performed isometric handgrip exercise for five consecutive days, and the control group (n=15), which received no intervention. Systolic and diastolic blood pressure were measured using a OneMed digital sphygmomanometer before and after the intervention. Data were analyzed using the Wilcoxon Signed-Rank Test and the Mann-Whitney Test.

**Results:** The results showed a significant reduction in systolic blood pressure ( $p=0.005$ ) and diastolic blood pressure ( $p=0.008$ ) in the experimental group, and there was a significant difference between the experimental and control groups ( $p<0.001$ ).

**Conclusion:** Isometric handgrip exercise is effective in reducing blood pressure among elderly women with stage 1 hypertension and can be recommended as a simple, inexpensive, and practical non-pharmacological strategy for hypertension management in the elderly.

**Keywords:** hypertension, elderly, isometric handgrip exercise, blood pressure

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