

**THE EFFECT OF THE COMBINATION OF SLOW DEEP BREATHING
EXERCISE AND ISOMETRIC HANDGRIP EXERCISE ON CHANGES IN
BLOOD PRESSURE IN PRE-ELDERLY WITH HYPERTENSION**

ABSTRACT

Background: Hypertension is still a major problem among the elderly. The incidence of hypertension in the elderly can cause poor quality of life, difficulties in social and physical functioning and increase morbidity and mortality due to the complications it causes, someone who is at risk of suffering from hypertension is aged 45 years and over. One of the interventions given by physiotherapy in reducing blood pressure in the elderly with hypertension is Slow Deep Breathing Exercise and Isometric Handgrip Exercise. **Objectiv:** to determine the effect of a combination of Slow Deep Breathing and Isometric Handgrip Exercise on reducing blood pressure in pre-elderly with hypertension. **Method:** This study used a quasi-experimental quantitative method with a one-group pre-test and post-test design. A sample of 30 respondents with purposive sampling technique. Blood pressure measurement using a sphygmomanometer. Intervention of Slow Deep Breathing and Isometric Handgrip Exercise with the same dose for 5 days with a frequency of 1 time a day. **Result:** Based on the results of the Wilcoxon test in the slow deep breathing exercise treatment with the addition of isometric handgrip exercise the systolic blood pressure before and after showed a significant value of 0.011 ($p < 0.05$), while the diastolic blood pressure before and after showed a significant value of 0.014 ($p < 0.05$). **Conclusion:** There is an effect of a combination of Slow Deep Breathing Exercise and Isometric Handgrip Exercise on reducing blood pressure in Pre-Elderly with hypertension.

Keywords: pre-elderly ; hypertension; slow deep breathing exercise ; isometric handgrip exercise