PENGARUH *SLOW DEEP BREATHING EXERCISE* METODE *BHRAMARI PRANAYAMA* TERHADAP TEKANAN DARAH DAN *MEAN ARTERIAL PRESSURE*

(Studi pada Mahasiswa Fakultas Kedokteran Universitas Jenderal Soedirman)

Erlangga Arditya Ganesha, Susiana Candrawati, Wiwiek Fatchurohmah

Fakultas Kedokteran Universitas Jenderal Soedirman, Purwokerto, Indonesia

Email : erlangga.ganesha@mhs.unsoed.ac.id

ABSTRAK

Tingginya prevalensi hipertensi pada penduduk usia 18 - 24 tahun di Indonesia perlu solusi agar angka prevalensi tersebut menurun. Salah satu alternatif solusi yaitu melakukan latihan relaksasi seperti *slow deep breathing*. Penelitian ini bertujuan mengidentifikasi pengaruh *slow deep breathing exercise* terhadap tekanan darah dan *mean arterial pressure* pada mahasiswa Fakultas Kedokteran Universitas Jenderal Soedirman. Penelitian ini menggunakan metode penelitian *quasi experimental* dengan rancangan *nonequivalent control group design* pada 40 mahasiswa pre-klinik Fakultas Kedokteran Universitas Jenderal Soedirman angkatan 2019-2021 dengan teknik *consecutive sampling.* Subjek diminta melakukan latihan relaksasi *slow deep breathing* setiap hari selama 3 minggu. Pemeriksaan tekanan darah dilakukan sebelum dan setelah pemberian perlakuan dengan *sphymomanometer* air raksa. Pengolahan data dilakukan dengan menggunakan uji t berpasangan, uji wilcoxon, dan uji t tidak berpasangan. Intervensi *slow deep breathing* menurunkan secara bermakna tekanan darah sistolik (p=0,019), tekanan darah diastolik (p=0,000), dan *mean arterial pressure* (p=0,006). Sedangkan teknik relaksasi sederhana tidak memiliki pengaruh yang signifikan terhadap tekanan darah sistolik (p=0,271) dan *mean arterial pressure* (p=0,085), tapi menurunkan secara bermakna terhadap tekanan darah diastolik (p=0,039). Uji beda antar kelompok menyatakan bahwa tidak ada perbedaan efektivitas antara *slow deep breathing* dan teknik relaksasi sederhana terhadap tekanan darah sistolik (p=0,304), tekanan darah diastolik (p=0,608), dan *mean arterial pressure* (p=0,352). Pemberian perlakuan *slow deep breathing* menurunkan tekanan darah dan *mean arterial pressure* pada kelompok intervensi. Pemberian perlakuan *slow deep breathing* tidak memiliki perbedaan efektivitas dengan pemberian teknik relaksasi sederhana, tapi penurunan rerata pada variabel penelitian lebih besar pada kelompok intervensi dibandingkan kelompok kontrol.

Kata Kunci: *mean arterial pressure,* tekanan darah diastolik, tekanan darah sistolik, s*low deep breathing exercise*

THE EFFECT OF SLOW DEEP BREATHING EXERCISE BHRAMARI PRANAYAMA METHOD ON BLOOD PRESSURE AND MEAN ARTERIAL PRESSURE

(*Study Of Male College Students Of Medicine Faculty, Jenderal Soedirman University)*

Erlangga Arditya Ganesha, Susiana Candrawati, Wiwiek Fatchurohmah

Jenderal Soedirman University, Purwokerto, Indonesia

Email : erlangga.ganesha@mhs.unsoed.ac.id

ABSTRACT

The high prevalence of hypertension in the population aged 18-24 years in Indonesia needs to be reduced. An alternative solution that can be given is slow deep breathing exercises. This study aims to identify the effect of slow deep breathing exercises on blood pressure and mean arterial pressure in students of the Faculty of Medicine, Jenderal Soedirman University. Quasi-experimental with nonequivalent control group design was used as a research method and 40 pre-clinical students from the Faculty of Medicine, Jenderal Soedirman University batch 2019-2021 were chosen as the subject in this study using consecutive sampling technique. Examination of blood pressure was carried out before and after treatment with a mercury sphygmomanometer. Data processing was performed using paired t-test, wilcoxon test, and unpaired t-test. Slow deep breathing intervention significantly reduced systolic blood pressure (p=0.019), diastolic blood pressure (p=0.000), and mean arterial pressure (p=0.006). Meanwhile, simple relaxation techniques did not have a significant effect on systolic blood pressure (p=0.271) and mean arterial pressure (p=0.085), but it significantly reduced diastolic blood pressure (p=0.039). Differential tests between groups revealed that there was no difference in effectiveness between slow deep breathing and simple relaxation techniques on systolic blood pressure (p=0.304), diastolic blood pressure (p=0.608), and mean arterial pressure (p=0.352). Slow deep breathing exercises lower blood pressure and mean arterial pressure in the intervention group. Slow deep breathing exercise has no difference in effectiveness compared to simple relaxation techniques, but the mean decrease in the study variables is greater in intervention group than in control group.

***Keywords**: diastolic blood pressure, mean arterial pressure, slow deep breathing exercise, systolic blood pressure*