

ABSTRAK

PENGARUH KOMBINASI LATIHAN YOGA PRANAYAMA DAN *ENDURANCE EXERCISE* TERHADAP PENINGKATAN ARUS PUNCAK EKSPIRASI PAKSA DAN KONTROL ASMA DI RUMAH SAKIT UNIVERSITAS AIRLANGGA DAN RUMAH SAKIT UMUM HAJI SURABAYA

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Latar belakang: Prevalensi asma meningkat tajam dan saat ini asma diketahui sebagai penyebab kecacatan (*disability*) yang paling sering, membutuhkan biaya banyak dan penyakit dengan kematian yang dapat di cegah.

Tujuan: Penelitian ini menganalisis pengaruh kombinasi latihan yoga pranayama dan *endurance exercises* terhadap peningkatan arus puncak ekspirasi paksa dan kontrol asma.

Metode: Penelitian ini menggunakan *Quasy Experimen* dengan pendekatan *pre-post test control group design*, populasi penelitian adalah pasien asma di poli paru Rumah Sakit Universitas Airlangga (RSUA) dan Rumah Sakit Umum Haji Surabaya (RSU Haji). Pengambilan sampel dilakukan dengan Teknik *consecutive sampling* sesuai dengan kriteria inklusi dengan total 72 responden. Intervensi kombinasi latihan yoga pranayama dan *endurance exercise* dilakukan 2 kali perminggu, selama 6 minggu. Nilai arus puncak ekspirasi paksa (APEP) diukur dengan *Peak Flow Meter* dan nilai kontrol asma diukur dengan *Asthma Control Test (ACT)*. Analisis data menggunakan *paired t-test, Mann-Whitney, Wilcoxon test*, dan *Manova*.

Hasil: Perbedaan antara *pre-post* latihan kombinasi yoga pranayama dan *endurance exercise* antara kelompok intervensi dan kelompok kontrol dievaluasi menggunakan uji statistik *Wilcoxon test* dan uji *Manova*. Terjadi peningkatan Arus Puncak Ekspirasi Paksa (APEP) secara bermakna setelah dilakukan latihan kombinasi yoga pranayama dan *endurance exercise* selama 6 minggu didapatkan nilai signifikansi ($p < 0,05$) dan kontrol asma pada kelompok intervensi ($p < 0,05$) dibandingkan dengan kelompok kontrol didapatkan nilai signifikansi ($p > 0,05$). Hal ini berarti latihan kombinasi yoga pranayama dan *endurance exercises* efektif untuk meningkatkan APEP dan kontrol asma.

Kesimpulan: Latihan kombinasi yoga pranayama dan *endurance exercise* dapat meningkatkan arus puncak ekspirasi paksa dan kontrol asma.

Kata kunci: Kombinasi latihan yoga pranayama dan *endurance exercises*, arus puncak ekspirasi paksa (APEP), dan kontrol asma.

ABSTRAC

**EFFECT OF YOGA PRANAYAMA EXERCISE COMBINATION AND
ENDURANCE EXERCISE ON INCREASING FLOW TOP OF
FORCED EXPIRATION AND ASTHMA CONTROL IN
AIRLANGGA UNIVERSITY HOSPITAL AND
HAJI GENERAL HOSPITAL, SURABAYA**

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Background: The prevalence of asthma has risen sharply and currently asthma is known to be the most frequent cause of disability, costs a lot and diseases with death can be prevented.

Objective: This study analyzed the effect of the combination of yoga pranayama exercises and endurance exercises on increasing peak forced expiratory flow and asthma control

Method: This study uses Quasy Experiments using the pre-post test design control group, patient research studies at the Airlangga University Hospital (RSUA) and Surabaya Haji General Hospital (Haji Hospital). Sampling was done by Technique consecutive sampling based on the inclusion criteria with a total of 72 respondents. The combination intervention of yoga pranayama and endurance exercise was done twice a week, for 6 weeks. The value of forced expiratory peak flow (APEP) was measured by the Peak Flow Meter and the asthma control test was measured by the Asthma Control Test (ACT). Data analysis used a paired t-test, Mann-Whitney, Wilcoxon test, and Manova Test.

Results: The difference between pre-post combination yoga practice pranayama and endurance exercise between the intervention group and the control group was evaluated using the Wilcoxon test and Manova test. Significant increase in Forced Expiration Flow (APEP) after a combination of yoga pranayama exercises and endurance exercise for 6 weeks found significant values ($p < 0.05$) and asthma control in the intervention group ($p < 0.05$) compared to the control group obtained a significance value ($p > 0.05$). This indicating combination exercises of yoga pranayama and endurance exercise is effective to improve APEP and control asthma.

Conclusion: Yoga pranayama and endurance exercise combination exercises can increase the peak flow of forced expiration and asthma control.

Keywords: Combination of yoga pranayama exercises and endurance exercises, forced expiratory peak flow (APEP), and asthma control.