

HUBUNGAN ANTARA FUNGSI PARU BERDASARKAN *FORCED EXPIRATORY VOLUME IN 1 SECOND (FEV₁)* DAN TEKANAN DARAH PADA LANSIA DI POSBINDU KOMPLEKS MARINIR DEPOK

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Abstrak

Latar Belakang: Lansia mengalami perubahan fisiologis pada sistem respirasi dan kardiovaskular. Penurunan fungsi paru yang ditandai oleh nilai Forced Expiratory Volume in 1 second (FEV₁) serta peningkatan tekanan darah sering ditemukan pada kelompok usia ini, namun hubungan keduanya masih menunjukkan hasil yang bervariasi. **Tujuan:** Penelitian ini bertujuan untuk mengetahui hubungan antara fungsi paru berdasarkan nilai FEV₁ dengan tekanan darah pada lansia di Posbindu Komplek Marinir Depok. **Metode:** Penelitian observasional dengan desain cross-sectional ini melibatkan 108 lansia yang mengikuti kegiatan Posbindu pada 15 Desember 2026. Fungsi paru diukur menggunakan spirometri dan tekanan darah diukur menggunakan tensimeter. Analisis data dilakukan menggunakan uji Spearman rho. **Hasil:** Sebagian besar responden memiliki fungsi paru dan tekanan darah dalam kategori tidak normal dengan arah hubungan negatif. Namun, secara statistik tidak ditemukan hubungan yang bermakna antara nilai FEV₁ dan tekanan darah ($p > 0,05$). **Kesimpulan:** Tidak terdapat hubungan yang signifikan antara fungsi paru berdasarkan nilai FEV₁ dengan tekanan darah pada lansia di Posbindu Komplek Marinir Depok..

Kata kunci: Lansia, Fungsi Paru, FEV₁, Tekanan Darah

THE RELATIONSHIP BETWEEN LUNG FUNCTION BASED ON FORCED EXPIRATORY VOLUME IN ONE SECOND (FEV₁) AND BLOOD PRESSURE AMONG THE ELDERLY AT THE POSBINDU OF THE MARINIR COMPLEX, DEPOK

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Abstract

Background: Older adults experience physiological changes in the respiratory and cardiovascular systems. Decreased lung function, as indicated by Forced Expiratory Volume in 1 second (FEV₁) values, and increased blood pressure are often found in this age group, but the relationship between the two still shows varying results.

Objective: This study aims to determine the relationship between lung function based on FEV₁ values and blood pressure in elderly individuals at the Posbindu Komplek Marinir Depok. **Methods:** This observational cross-sectional study involved 108 elderly individuals who participated in Posbindu activities on December 15, 2026. Lung function was measured using spirometry, and blood pressure was measured using a tensiometer. Data analysis was performed using Spearman's rho test. **Results:** Most respondents had abnormal lung function and blood pressure with a negative correlation. However, statistically, no significant relationship was found between FEV₁ values and blood pressure ($p > 0.05$).

Conclusion: There was no significant relationship between lung function based on FEV₁ values and blood pressure in elderly people at the Depok Marine Complex Health Center.

Keywords: Elderly, Lung Function, FEV₁, Blood Pressure